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Re: Natural Gas Fact Finding Workshop 4 (UM 2178)

Dear Oregon Public Utility Commission:

Our undersigned organizations, made up of climate and energy justice advocates and experts, appreciate the opportunity to submit comments on the discussion of regulatory tools in Workshop 4b of the Natural Gas Fact Finding proceeding (UM 2178).

As many of our organizations shared in previous comments,[1] we have significant concerns with the continued and growing use of methane gas in Oregon, both natural gas and most forms of biomethane (i.e., renewable natural gas). The use of methane gas in the electricity sector and for direct use in homes and buildings is on the rise in Oregon and nationwide, despite its significant public health, racial justice, and climate consequences.[2] It is subsidized and encouraged under existing policies and paradigms overseen by the Oregon Public Utilities Commission (OPUC). The gas utilities have already made clear in their first round of modeling that they do not have a realistic plan for reaching deep greenhouse gas reductions that is affordable and at an appropriate level of risk for customers to bear. Every new gas hook–up and increased reliance on methane gas from here on out comes with an outsized decarbonization cost and risk for ratepayers compared to lower–cost electrification and deep energy efficiency solutions.

This past year was filled with climate–driven disasters that impacted Oregonians' lives, health, livelihoods and energy systems. It is urgently clear that methane gas use must significantly decline in the coming years if Oregon hopes to mitigate the climate crisis, achieve its longer–term GHG reduction goals[3] and avoid the economic harms that would result from delaying a

[1] Joint Comments - Natural Gas Fact Finding Session 2, UM 2178 (July 30, 2021), *available at* https://edocs.puc.state.or.us/efdocs/HAC/um2178hac121342.pdf; Joint Comments - Natural Gas Fact Finding Workshop 3, No. UM 2178 (Sept. 24, 2021), *available at* https://edocs.puc.state.or.us/efdocs/HAC/um2178hac162937.pdf.

[2] Recent research demonstrates that burning fossil fuels causes 50,000 U.S. deaths and $445 billion in economic damage annually. *See* Karn Vorha et al., *Global mortality from outdoor fine particle pollution generated by fossil fuel combustion: Results from GEOS-Chem*, Env't. Res. 195 (2021), *available at* https://www.sciencedirect.com/science/article/abs/pii/S0013935121000487.

[3] A recent UN report demonstrates that **cutting global methane emissions**, including from gas utilities, is more critical than previously thought. *See e.g.*, A. R. Ravishankara et al., UUNEP, *Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions* at 11-12 (2021), *available at* https://www.unep.org/resources/report/global-methane-assessment-benefits-and-costs-mitigating-methane-emissions.

clean energy transition any further. Fortunately, electrifying buildings is an increasingly affordable option for Oregonians and, as a result of HB 2021, will be primarily powered by clean electricity in the coming years, thereby dramatically lowering emissions from heating buildings today.

As this Natural Gas Fact Finding proceeding (UM 2178) begins to wind down, and as the OPUC considers regulatory tools to mitigate customer bill impacts, we urge Commissioners to do everything in their authority to support a just and equitable transition off of fossil fuels and onto clean–powered electricity. We hope Commissioners will do so urgently while protecting ratepayers' best interests—including access to affordable energy and avoidance of stranded assets and ballooning infrastructure costs. **Ultimately, it is critical that throughout and after this specific proceeding, the OPUC takes responsibility for driving the transition away from methane gas and on to cleaner and healthier electric resources to best serve the public interest.**

We are past a time when we can afford to just passively study the problem of growing gas reliance, hook–ups, and infrastructure in Oregon. This is a critical decade when we need to drastically cut fossil fuel reliance and greenhouse gas emissions in our state and world. It is time for urgent action directed by the OPUC to ensure our energy system is on track to be climate–resilient, energy–smart, equitable, affordable, reliable, and fossil–free.

Specifically, the OPUC should immediately do the following:

1. Update gas utilities' Integrated Resource Planning (IRP) Guidelines so that the risk of continued and expanded investments in gas infrastructure, including renewable natural gas, is shouldered by shareholders rather than customers.

2. Lower barriers to electrification and energy efficiency immediately, while eliminating incentives for new gas infrastructure and urgently phasing out incentives for gas appliances.

3. Create new programs to support beneficial electrification and energy efficiency, particularly for low– and moderate–income (LMI) customers.

4. Protect LMI customers by actively engaging with relevant stakeholders to understand and address their needs, with programs and rates designed specifically for these communities.

5. Without postponing any of the above, create a comprehensive cross–utility planning process that is independent and involves a wide diversity of stakeholders.

We expand on these recommendations, including recommending specific regulatory tools, in the following sections.

I. <u>The OPUC Must Protect Customers from the Climate, Public Health, and Economic Harms of Methane Gas as it Supports a Transition to Clean Electric Power</u>

A. <u>Oregon's Transition Off of Methane Gas Is All but Inevitable</u>

As we outlined in our previous comments, and as the Regulatory Assistance Project (RAP) discusses in its report "Under Pressure: Gas Utility Regulation for a Time of Transition,"[4] climate realities, state and local regulations, economics, and a variety of other factors indicate that business–as–usual growth in the gas system is highly unlikely. After years of climate–driven disasters including heat waves and wildfires, ratepayers will increasingly seek electric options on their own and local communities will continue to consider limiting or eliminating new and existing methane gas hookups as avenues to meet their climate goals. Communities nationwide are exploring and/or have adopted building electrification measures, and the trend is only going to spread. Fifty cities in California, along with many cities in other states including Seattle and New York City, have taken steps to going "all–electric."[5] This is one of many clean energy advancements coming to Oregon, where local cities and counties are already considering such a move.

Further, due to the high costs of the CPP compliance pathways modeled in utilities' initial scenario results, along with aging gas infrastructure and rising commodity costs,[6] methane gas prices are likely to increase significantly, which will further drive the individual and community defection from gas utility services.

B. <u>The OPUC Has a Responsibility to Support and Manage This Transition for the Climate, Public Health, and Economic Stability of All Oregonians</u>

First and foremost, the OPUC must support the transition off of methane gas and onto electric appliances powered by renewable energy. Without a swift, managed transition, Oregonians will face continued and worsening harms of the climate crisis. These impacts are already disproportionately borne by Black, Indigenous and People of Color (BIPOC) and LMI communities. Climate impacts include increased severity and occurrence of storms, drought,

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[4] Megan Anderson et al, *Under Pressure: Gas Utility Regulation for a Time of Transition* at 8 (Regulatory Assistance Project May 2021), *available at* https://www.raponline.org/wp-content/uploads/2021/05/rap-anderson-lebel-dupuy-under-pressure-gas-utility-regulation-time-transition-2021-may.pdf. [hereinafter "*Under Pressure*"].

[5] Rob Nikolewski, *Encinitas bans natural gas in new buildings, including homes, Los Angeles Times, LA Times*, Sept. 23, 2021, *available at* https://www.latimes.com/california/story/2021-09-23/encinitas-electric-ordinance.

[6] *Under Pressure* at 8; *US heating bills will jump as much as 54% this winter, says government*, The Guardian, Oct. 14, 2021, *available at* https://www.theguardian.com/us-news/2021/oct/14/us-heating-bills-natural-gas-electric-oil-propane (explaining gas heating is likely to jump as much as 54% this winter).

wildfires, heat waves, and severe cold weather. These events have compounding public health impacts—from lung damage due to wildfire smoke to deaths resulting from extreme temperatures. Climate impacts also have significant effects on Oregon's economy, including the costs of rebuilding after fires and days spent sick from smoke and heat–induced illnesses.[7] These impacts are all clearly tied to the fossil fuel–driven climate crisis, and yet they are not directly considered in methane gas utility regulation.

In addition to climate impacts, Oregonians continue to be harmed by both indoor and outdoor air pollution from methane gas use. Burning fossil fuels in buildings was responsible for 20 premature deaths and $221,326,511 in health impacts in the state in 2017. 89% of those impacts were specifically from burning natural gas in buildings.[8] As with other fossil fuels, methane gas pollution disproportionately harms Black and other communities of color.[9]

At the same time, it is also clear that Oregon stands to gain significant **benefits** by transitioning off of methane gas and onto clean electricity. A fossil–free energy system will enable Oregonians to power our lives and economy affordably in a low–carbon, climate–safe world. Cleaner air without fossil fuel combustion and methane leaks provides huge health benefits and savings. The economic benefits of this transition range from the direct local job creation for hundreds of contractors and thousands of installers throughout the state, to the dollars saved by Oregon families and recirculated in our local economies.[10] The clean energy sector was one of Oregon's fastest–growing before the pandemic, with nearly 60,000 jobs,[11] and driving this transition will quickly regain that growth.

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[7] *See, e.g.*, Or. Clean Energy Opportunity Campaign, *House Bill 2842 - Healthy Homes*, *available at* https://static1.squarespace.com/static/5fee2a9b96a9ec7fa1397833/t/60cba2b1b9f5d57963b021de/1623958193191/Healthy+Homes+One-Pager+%2410M+%28EN%29.pdf); *see also* Vijay Limaye & Juanita Constible, NRDC, *Up in Smoke: Oregon Wildfires Cost Billions in Health Harms* (Oct. 2, 2019), *available at* https://www.nrdc.org/experts/vijay-limaye/smoke-oregon-wildfires-cost-billions-health-harms.

[8] This is a conservative estimate because it only includes health impacts from outdoor PM2.5 and precursor pollution; it also does not include pollution from upstream extraction. *See*, Jonathan J Buonocore et al., *A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy*, 16 Environ. Res. Lett. (2021), *available at* https://doi.org/10.1088/1748-9326/abe74c.

[9] Black Americans are exposed to 38 percent more polluted air than white Americans, on average. And more than one million Black Americans live within a half mile of gas facilities, resulting in higher risks of cancer and other health problems. *See* Lesley Fleischman & Marcus Franklin, *Fumes Across the Fenceline* (NAACP 2017), *available at* https://naacp.org/resources/fumes-across-fence-line-health-impacts-air-pollution-oil-gas-facilities-african-american; *See also* Ihab Mikati et al. *Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status*, 108 Am. J. of Pub. Health (April 1, 2018), *available at* https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2017.304297; *See also* Sarah Kaplan, *Climate Justice is a Racial Justice Problem*, Wash. Post, June 29, 2020, *available at* https://www.washingtonpost.com/climate-solutions/2020/06/29/climate-change-racism/.

[10] Betony Jones et al., *California Building Decarbonization - Workforce Needs and Recommendations* (UCLA Luskin Center for Innovation Nov. 2019), *available at* https://innovation.luskin.ucla.edu/california-building-decarbonization/.

[11] Environmental Entrepreneurs (E2) in partnership with Oregon Business for Climate, *Clean Jobs Oregon 2020 - Ready to Drive Recovery and Growth in 2021* (Feb. 18, 2021), *available at* https://e2.org/reports/clean-jobs-oregon-2020/.

As a critical part of facilitating a just transition off methane gas and onto clean energy sources, the OPUC must protect residential customers from potential bill impacts that would make energy access unaffordable or inequitable. As we explain further below, it is critical that the OPUC deploy a variety of tools to avoid additional and imprudent investments in maintaining the gas system, and instead support electrification, especially for those customers who need support to transition off of gas. The OPUC must take a close look at the impacts to LMI customers stranded on the gas system in scenarios where electrification has significantly shrunk the gas customer base. The Commission should also immediately implement electrification programs and policies that would directly benefit LMI communities including 1) programs which would help LMI customers electrify early so they don't end up stranded on the gas system, and 2) programs that make electric solutions affordable and accessible in the long term.

Finally, Oregon's lower–cost pathways to economy–wide decarbonization will require high levels of building electrification and investments in deep energy efficiency retrofits of existing buildings.[12,13] These strategies, combined with pressure from the Climate Protection Program on gas utilities to decarbonize their systems, will cause gas demand to fall significantly over the coming decades.[14] Simultaneous trends of electrification and falling demand for methane gas pose a significant stranded–asset risk to utilities, as well as a cost burden on ratepayers if a gas utility overbuilds its distribution system for future demand that never materializes. If the OPUC does not manage the energy transition well, vulnerable and lower–income customers are at risk of being stranded on an increasingly unaffordable gas system.

II. **The OPUC Must Revise and Expand Existing Planning Processes to Ensure a Rapid and Just Transition Off of Methane Gas**

The OPUC will need to take an active role in facilitating a managed transition off the gas system in order to both protect highly impacted communities and to ensure these communities receive an equitable share of the benefits of the energy transition. There are several critical, near–term actions that the OPUC should undertake to support a just transition. As an impartial regulator, the OPUC's core mission is to protect the public interest, and the OPUC must ensure that the most cost–effective solutions to the climate crisis are adopted. To that end, we recommend that the OPUC: 1) create a new, comprehensive planning process across both gas and electric utilities led by the commission or a third party; 2) expand public access to planning processes; 3) revise

[12] *See, e.g.*, Evolved Energy Research, *Northwest Deep Decarbonization Pathways Study* (May 2019), available at https://docs.wixstatic.com/ugd/368db9_6827f11099f64962b2a915cf127cb148.pdf.

[13] Briefing Room, The White House, *FACT Sheet: Biden Administration Accelerates Efforts to Create Jobs Making American Buildings More Affordable, Cleaner, and Resilient* (May 17, 2021), *available at* https://www.whitehouse.gov/briefing-room/statements-releases/2021/05/17/fact-sheet-biden-administration-accelerates-efforts-to-create-jobs-making-american-buildings-more-affordable-cleaner-and-resilient/.

[14] For gas utilities to meet CPP targets, they will need to either reduce sales, electrify, or invest in decarbonized fuels (which would put upward pressure on rates, driving more customers off the gas system and further increasing rates).

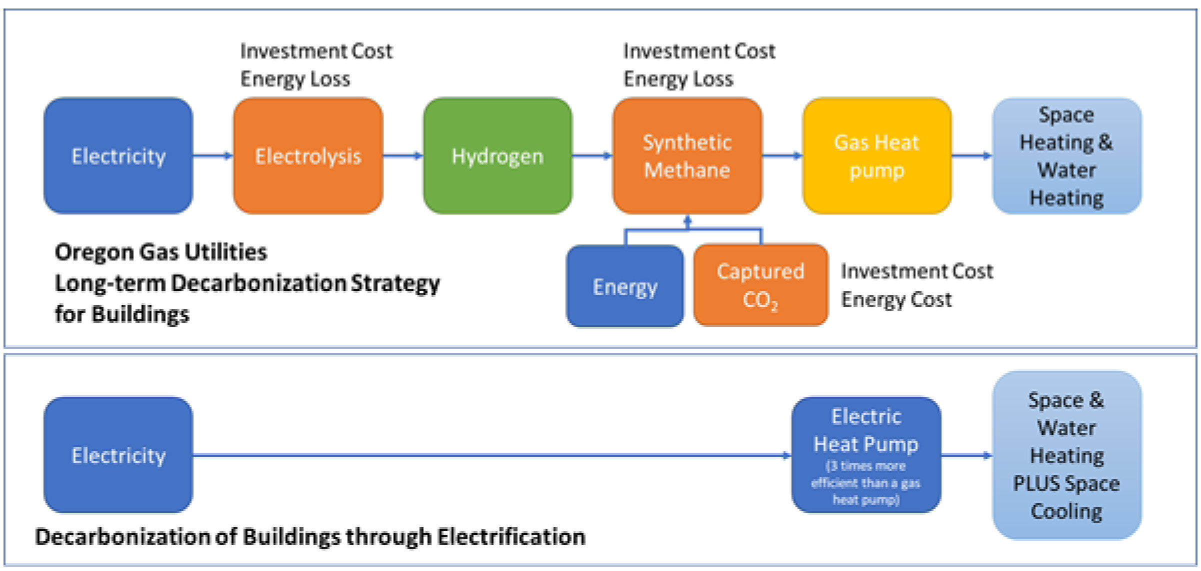
IRP guidelines; and 4) engage in comprehensive system mapping that will allow thoughtful pruning of the gas system.

A. The OPUC Must Perform Comprehensive Planning Across Gas and Electric Utilities

A comprehensive planning process is needed to identify the most cost–effective solutions to meeting near–term and long–term decarbonization targets while facilitating an orderly transition for all utility customers. This new process should be undertaken for the OPUC by an independent entity, and its goal should be to identify least cost decarbonization options for all customer classes.

The OPUC's current, siloed planning process has presented a number of issues. The gas utilities' compliance modeling results initially delivered under this docket have provided an unnecessarily complex, expensive, and unlikely long–term strategy involving hydrogen and RNG blending while ignoring many simpler, more efficient and lower cost electrification options for their residential and commercial customers. This is outlined in the figure below, and is documented in multiple integrated energy systems analyses that have identified the electrification of our building stock as a cornerstone pathway of a least–cost decarbonization strategy.[15,16,17]

Figure 1. Comparison of Building Decarbonization Strategies



[15] International Energy Agency, *Net Zero by 2050 - A Roadmap for the Global Energy Sector* (May 2021, *available at* https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf.

[16] Bill Gates, *How to Avoid a Climate Disaster* at 154 (Knopf Feb. 16, 2021).

[17] Evolved Energy Research, *Northwest Deep Decarbonization Pathways Study* (May 2019), available at https://docs.wixstatic.com/ugd/368db9_6827f11099f64962b2a915cf127cb148.pdf.

The OPUC planning goal should be to identify how Oregon can achieve economy–wide greenhouse gas reductions at the least cost and what customer and utility actions need to be taken to keep the state on the path of cost–effective, equitable greenhouse gas reductions. The OPUC must replace its current siloed planning process with an integrated one that looks at actions regulated utilities—both gas and electric—need to take, and how these actions impact other sectors' decarbonization options and customers. While doing so, it is critical that the OPUC keep in mind the lifespan of gas assets—their "used and useful" life might be much shorter under climate, economic and regulatory realities than the OPUC is used to considering.

This new, comprehensive planning process should be undertaken for the OPUC by an entity independent of the gas and electric utilities being regulated, and its goal should be to identify least–cost decarbonization options for all customer classes. In particular, the integrated planning process must model the distinct efficiency and fuel–switching options for residential, commercial and industrial customers, and address potential issues of grid reliability that could emerge over time as our energy system transitions to greater reliance on electricity for space and water heating and onto 100% clean electricity generation. Although these potential grid reliability issues will only emerge in the next 10 to 20 years, the integrated planning process should consider them and identify methods to ensure system reliability to meet winter peak demands.

In addition to identifying the least–cost pathways to long–term decarbonization, this comprehensive planning effort should help to reimagine the gas utility of the future and the OPUC should identify ways to incentivize utilities' shareholders to adopt this new paradigm. As discussed further below, this comprehensive planning process should also result in the identification of sections of the gas distribution network that are good candidates for early decommissioning.

This new comprehensive planning process should be undertaken on a periodic basis and is needed to support an orderly transition of our building stock to low–carbon appliances in a least–cost manner.

Outputs from the comprehensive planning process should be used to develop an electrification plan for Oregon buildings that includes:

1. A date for stopping new gas infrastructure for residential and commercial buildings;

2. A timeline and plan for electrification of existing buildings;

3. Targeted incentives for phased electrification; and

4. A timeline and plan for phased decommissioning of portions of the gas grid no longer in use.

B. An Inclusive Stakeholder Process is Critical to Good Planning

As previous comments noted, existing planning processes are not ideally suited for engaging with stakeholders from underserved or disadvantaged communities, but those are the very communities most affected by utility decisions to ignore the risks that methane gas poses. It is crucial that the OPUC identifies ways to conduct an inclusive public process that incorporates and considers the views of the state's diverse residents and stakeholders. Knowing that IRP proceedings are highly–technical, high–barrier undertakings, the OPUC must consider ways to make them as accessible as possible. For example, utility workshops prior to IRP filings are one way for stakeholders to understand and influence utility decisions, but they are difficult to track, are usually held on weekdays during the workday, and cover material at a depth that is inaccessible to the average participant. Utilities should be required to host workshops for newcomers to the process that provides a basic education about how the planning process works, how the underlying models work, and the main investments being considered. They should be required to send an invitation to all of their ratepayers to attend such a workshop. All IRP workshops should be recorded and the recordings should be made available on the utility's website. The OPUC should establish requirements for utilities to achieve certain levels of engagement in disproportionately–impacted communities.

The OPUC can also support robust stakeholder engagement in the IRP process by thinking creatively about how to make information as accessible as possible. For example, the OPUC could add content to its current webpage about planning,[18] and link to that page in other sections on the website so it is easier to find (like under its "Get Involved" column on the Home page). On the planning page, the OPUC could link to each of the utility's websites, which in turn reflect the IRP workshop dates and filing dates, as well as the dockets associated with each utility's IRP once filed. The OPUC could include an easy, clear manual about how to participate in an IRP process, including an explanation about when stakeholder feedback is accepted once the IRP has been filed with the OPUC, what intervening means, and what information is most useful to the OPUC.

In short, since the beginning of this workshop series, we have been concerned about the OPUC's intention to persuade stakeholders to engage more deeply in the IRP process as a means of addressing methane gas risk in Oregon. We appreciate that the IRP process is a good way to learn what the utilities believe is the best way to meet future demand, but the current method of gathering information from affected communities is insufficient to ensure that gas utilities hear new voices and gain an understanding of changing demand and impacts to customers.

[18] *Integrated Resource Planning*, Oregon.gov, https://www.oregon.gov/puc/utilities/Pages/Energy-Planning.aspx (last visited Oct. 26, 2021). We note that the OPUC appears to be updating its EO 20-04 pages, which we appreciate. We urge the OPUC to continue to improve and add content to make agency processes as accessible as possible.

C. <u>The IRP Guidelines Should be Updated to Account for Emerging Risks and Uncertainties</u>

Despite its shortcomings from a stakeholder–engagement standpoint, we recognize that integrated resource planning remains an essential process for addressing current and emerging sources of risk and uncertainty for gas utilities and/or their customers. The IRP process enables the OPUC and stakeholders to evaluate a gas utility's projected customer demand and consider whether additional infrastructure investments will be necessary to meet that demand. If an IRP concludes that additional infrastructure will be needed to serve ratepayers, there is a high probability that the utility will ultimately invest in that infrastructure and pass on the associated costs to current and future ratepayers.[19] It is therefore imperative that the OPUC's IRP Guidelines direct utilities to adequately and accurately evaluate and account for risks and uncertainties that could influence gas demand during the planning window.

The OPUC's current IRP Guidelines create a strong foundation for addressing risks and uncertainties associated with decarbonizing the energy system. The Guidelines state that the primary goal of the IRP process must be to select a resource portfolio "with the best combination of expected costs and associated risks and uncertainties for the utility and its customers."[20] In accordance with this goal, the Guidelines direct utilities to consider risk and uncertainty in their IRPs, including those related to GHG emissions regulations. IRPs must also be "consistent with the long–run public interest as expressed in Oregon and federal energy policies."[21]

Unfortunately, by allowing utilities to balance costs and risks to customers and shareholders, the current planning rules effectively ensure that utilities will decline to select portfolios that reduce risk to customers without also benefiting shareholders. This dynamic is particularly pronounced in the context of gas utilities, which are not required to evaluate decarbonization strategies that involve fuel switching.[22] The Guidelines' failure to direct gas utilities to evaluate electrification strategies in their IRPs effectively allows the utilities to select resource portfolios that rely on uncertain, high–risk decarbonization strategies, such as those reliant on RNG or hydrogen. This in turn allows gas utilities to select resource portfolios that reduce risk and uncertainty for shareholders (by preserving the utility's existing customer base), while increasing ratepayers' exposure to risk and uncertainty.

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[19] While IRP acknowledgement does not guarantee that a utility will be approved to recover future capital costs from their ratepayers, it does establish a presumption that future investments are reasonable. *See* Order No. 07-002, No. UM 1056 (Or. Pub. Util. Comm'n Jan. 8, 2007) [hereinafter "Order No. 07-002"].
[20] Order No. 07-047, No. UM 1056, app. A at 1–2 § 1(b)-(c) (Or. Pub. Util. Comm'n Feb. 9, 2007) [hereinafter IRP Guidelines]. In Order No. 07-002, the PUC explained that its staff "characterizes risk as a measure of bad outcomes associated with a resource plan, and uncertainty as a measure of the quality of information about an event or outcome." Order No. 07-002 at 5.
[21] IRP Guidelines at 2 § 1(d).
[22] In Order 07-002, the PUC expressly decided to defer considering how fuel switching should be treated in the IRP process. Order No. 07-002 at 7.

At a bare minimum, the Guidelines should require utilities to evaluate fuel switching and electrification in their IRPs. Gas utility IRPs should evaluate costs and risks for a range of CPP compliance scenarios, including low, medium, and high electrification scenarios. These electrification scenario analyses should identify cost impacts (including rate impacts, bill impacts, and potential stranded cost impacts) for customers and shareholders. In addition, the Guidelines should direct utilities to demonstrate how their preferred resource portfolio achieves compliance with the CPP while minimizing and mitigating costs and risks to customers.

The current IRP Guidelines also fail to account for costs and risks associated with potential regulation of biogenic CO_2 emissions. Guideline 8 directs utilities to evaluate their expected CO_2 compliance obligations and costs, which clearly captures expected costs to comply with the proposed Climate Protection Program (CPP).[23] Because the Department of Environmental Quality (DEQ) currently lacks authority to regulate biogenic CO_2 emissions under the CPP, gas utilities have no obligation to model compliance costs for their biogenic emissions in their IRPs.[24] However, biomethane (RNG) combustion does emit CO_2, and the Oregon Legislature could potentially repeal the state's statutory biogenic emissions exemption. If this occurs, any gas utilities that have relied on RNG for CPP compliance could face a sudden increase in compliance costs. The IRP Guidelines should direct utilities to model potential compliance costs for biogenic emissions in their IRP scenario analyses.

D. A Layered System Map for Pruning is Essential to the Planning Process

We urge the OPUC to follow the Regulatory Assistance Project (RAP)'s recommendation for a layered system map to guide future decisions about investments. While Oregon's IRP guidelines require more of the gas utilities than many other states do, the OPUC should require more granular data from the utilities. For example, understanding the locations of gas lines that are aging or otherwise in need of repair or replacement, as well as other infrastructure in need of maintenance or replacement, will help begin to paint the picture about how to transition away from methane gas with the least upheaval. Overlaying the map of existing infrastructure with information about locations and density of customers, as well as customer classes, will more accurately inform demand forecasts. Additionally, identifying areas for expansion, or areas that are difficult to serve, would be extremely useful for planning purposes.

A layered system map, like that described more thoroughly by the Regulatory Assistance Project, serves multiple purposes. First, it will help the OPUC and utilities identify potential stranded costs before they are sustained. Second, it provides a means for stakeholders to engage with the utility about their needs, and the least–cost, least–risk option to meet those needs. Third, it

[23] Order No. 08-339, No. UM 1302, app. C (Or. Pub. Util. Comm'n June 30, 2008).
[24] *See* Or. Rev. Stat. § 468A.020(3).

provides useful information to the utilities in developing scenarios for modeling, and to the OPUC in identifying alternatives to expanding gas infrastructure.

Most importantly, a system map will help the OPUC and the utilities gradually and gracefully transition away from methane gas. The sooner we put planning tools in place that avoid making investments in areas where customers are no longer interested in methane gas, local governments have passed policies to shift away from methane gas, or where maintenance or repair costs are high, the better positioned we will be to face the transition when it happens. For example, Avista uses Aldyl-A plastic pipe in parts of its system,[25] which has been involved in explosions due to cracking.[26] Before Avista seeks to replace its pipe and recover the cost of that investment from ratepayers, stakeholders and the OPUC should know the locations of the faulty pipe and have an opportunity to explore non–pipe solutions. Traditional approaches to gas planning will not be sufficient at this time of shifting priorities.

III. <u>The OPUC Should Implement Programmatic Tools that Facilitate an Equitable and Rapid Transition Off Methane Gas to Clean Electricity</u>

The comprehensive, cross–utility planning described above is critical, but it should not hinder or delay implementing tools that we know are crucial and effective <u>now</u> to reduce pollution and carbon emissions. These tools can help Oregonians transition from methane gas to clean electricity for heating homes and businesses without further delay or further potential stranded costs on new gas hook–ups and extensions. Programs that advance beneficial electrification[27] and energy efficiency, particularly for LMI customers, should be created (or expanded, if already existing) as soon as possible, including programs to transition customers off of expensive bulk fuels like propane and fuel oil. These programs should benefit all Oregonians, regardless of where they live, and a special focus should be given to rural areas where these expensive bulk fuels are common. Where there are remaining questions about how best to electrify specific sectors or certain populations, pilot programs, planning, and ongoing R&D should be prioritized.

[25] Avista Corp., *2021 Natural Gas Integrated Resource Plan* at 175 (Apr. 2021), *available at* https://www.myavista.com/about-us/integrated-resource-planning.
[26] *Under Pressure* at 21 n.43.
[27] Here we're referring to RAP's definition of "beneficial electrification," where "electrification must satisfy at least one of the following conditions, without adversely affecting the other two: (1) saves consumers money over the long run; (2) enables better grid management; and (3) reduces negative environmental impacts." *Id*. at 31 n.68.

A. Create programs to encourage beneficial electrification in new and existing buildings

Helping Oregon transition to clean electric appliances is a "no regrets" policy which would have immediate positive impacts on indoor air quality and further Oregon towards achieving its carbon emissions reductions goals. These solutions are economical today and will become more so as methane gas prices increase as expected. All existing programs should be aligned to reduce barriers to electrification and ensure that switching out methane gas for electric appliances is affordable at the point of replacement, including the following:

1. **Eliminate any barriers to fuel switching with Energy Trust of Oregon (ETO) incentive programs.** The ETO Fuel Switching policy should be updated to meet climate and energy goals by ensuring that ETO funds can be used to subsidize and encourage switching out methane gas appliances for electric appliances. As it stands, the ETO is effectively prevented from using its funds to encourage fuel switching to electric appliances.[28] So if, at the point of appliance replacement, a household (who is also an electric customer) wants to switch from a gas furnace to an efficient electric heat pump, they seemingly would not have access to ETO incentives to do so.

2. **Require the ETO to actively promote fuel switching to beneficial electrification solutions** as the primary means to achieve energy efficiency improvements for heating appliances. Electric appliances are far more energy efficient than gas appliances. Indeed, the U.S. Environmental Protection Agency (EPA) recently decided that gas appliances no longer fit into its "most efficient" category under its Energy Star program.[29] High–efficiency electric solutions should be actively promoted by ETO on their website and other informational materials for all Oregonians.

3. **Promote building shell and weatherization improvements in coordination with replacing heating systems.** Weatherization, especially for older homes, is critical to achieve healthier, more comfortable, and more energy efficient buildings and reduce energy burden for their inhabitants.

4. **Eliminate all incentives for methane gas equipment and replace those incentives with incentives for high–efficiency electric solutions.** Existing ETO incentives to replace methane gas equipment for more–efficient methane gas equipment should be phased out so that these funds can be redirected to all–electric equipment and other

[28] According to RAP's "Under Pressure" report, the ETO "effectively bars the program from promoting fuel switching. The program administrator states that it "does not intend its incentives to affect fuel choice." *Id*. at 31 n.67 (citing Energy Trust of Oregon Inc. (n.d.). *4.03.000-P Fuel-switching policy*. https://www.energytrust.org/wp-content/uploads/2016/11/4.03.000.pdf).

[29] Justin Sullivan, *Gas appliances are no longer eligible for Energy Star's top rating*, Grist, Oct. 1, 2021, *available at* https://grist.org/energy/natural-gas-appliances-not-eligible-for-energy-star-top-rating/.

efficiency measures that do not extend fossil fuel use. Any gas utility incentives funded by ratepayers for new methane gas appliances should be prohibited. Spending valuable ratepayer funding and building owner capital on new methane gas appliances—which are only modestly more energy efficient than existing methane gas appliances—is a waste of resources when those dollars could be spent on converting to all–electric solutions that immediately reduce carbon emissions and avoid increasing methane gas costs. Installing new methane gas equipment today can condemn building owners to high methane gas bills in the future or costly replacements later.

5. **Create total energy building efficiency and greenhouse gas emissions metrics to qualify incentives.** Energy efficiency incentives should be based on *total building energy use* in primary energy units (BTUs). In that way, any appliance upgrade could be evaluated and compared to competing solutions in terms of total energy reduction potential or greenhouse gas reduction potential regardless of fuel source. This could encourage utilities and program administrators to promote and incentivize the most cost–effective ways to save total energy used (gas plus electricity), even if that means increasing the amount of electricity consumed. Likewise, incentives should only be used for solutions that reduce total building greenhouse gas emissions more than other competing solutions.

6. **Create programs to promote and reduce barriers to adoption of electric heat pump cooling solutions.** As dangerous heat events more regularly impact the health and productivity of Oregon residents, it is important to include cooling as well as heating as primary objectives for our energy systems. As such, electric heat pumps deliver on cooling needs in hot weather and also reduce consumption of methane gas during cooler months by offsetting gas furnace use—a double benefit. Programs to incentivize heat pumps for cooling should be implemented to ensure that they are at least price–competitive with air conditioners, which do not have heating benefits and which do not offset consumption of methane gas or bulk fuels.

7. **Create energy efficiency programs that target older, inefficient gas appliances in residential and commercial buildings to be replaced with high–efficiency electric alternatives.**

8. **Create programs to educate the public on the health, comfort, and environmental benefits of electrification.** Widespread adoption of high–efficiency electric heat pumps and induction cooking can be accelerated through programs which educate the public on the benefits of these solutions as these devices are still unfamiliar to many homeowners and building owners. Programs which provide this education and also link to available incentives will increase adoption of these products and increase progress toward

statewide decarbonization goals. Precedents for such programs exist in California[30], Massachusetts[31], and New York State[32].

9. **Include public health impacts and climate impacts in all OPUC policy decisions.** In addition to ratepayer impacts, utility revenue requirements and energy reliability, the OPUC should consider the relative public health and climate benefits of infrastructure it is either promoting or discouraging in its policy making decisions. This extends from ratemaking to IRPs. It should be standard practice to weigh the true value of beneficial electrification (including its indirect benefits to society and the climate) as well as the true harms of continued methane consumption (including its health and climate impacts) as a formal part of all policy decisions.

B. Create New Programs to Support LMI Electrification Options

ETO incentives which reduce the capital costs of appliance upgrades are often insufficient to enable LMI households to undertake those costly improvements. For these ratepayers, upgrades which could significantly reduce their energy payments can be out of reach, even with those incentives. New programs should be developed to drive electrification and weatherization improvements for lower–income households specifically. These programs will deliver economic and health benefits to these communities in addition to lowering statewide emissions. **While in general the OPUC should double–down on electrification programs that help everyone, it should prioritize new programs that specifically focus on LMI households to avoid potential negative bill impacts for those ratepayers.**

These projects should be developed with key stakeholders at the table who might not have had the opportunity to participate in this UM 2178 proceeding, but who are most closely familiar with the needs of LMI communities and the challenges with implementing energy efficiency programs in these communities. Special attention should be given to programs focusing on rural communities and the unique challenges they face in transitioning to electric solutions. This will ensure that programs are designed to maximize effectiveness and ensure that those most in need are truly served by these programs.

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[30] *The Switch is On*, https://www.switchison.org/ (last visited Oct. 26, 2021).
[31] *Massachusetts Clean Energy Center*, https://goclean.masscec.com/ (last visited Oct. 26, 2021).
[32] *Clean Heating and Cooling (CH&C) Campaigns*, New York State, https://www.nyserda.ny.gov/All-Programs/Programs/Clean-Heating-and-Cooling-Communities/Campaigns (last visited Oct. 26, 2021).

In general, these programs should:

1. **Prioritize investments in LMI and rural communities** that carry the highest risk of being exposed to rising gas costs the longest and with the least ability to absorb transition costs to more energy efficient solutions.

2. **Provide affordable weatherization and electrification solutions** including electric heat pump systems for LMI households in need of cooling and heating technologies as well as induction cooking to improve indoor air quality.

3. **Include allowances for necessary electrical upgrades and plumbing upgrades** in addition to other expected costs, since many of these homes will be older and in need of these upgrades to take advantage of energy–efficient appliances.

4. **Promote weatherization and electrification of rental units** that serve LMI communities.

5. **Promote all–electric affordable housing developments.**

6. **Recognize and value the positive health and societal impacts of solutions in program design.** Weatherization, heat pumps for heating and cooling, and induction cooking will improve comfort and indoor air quality, reduce health risks, improve the productivity of those targeted by the programs, and reduce operating costs and greenhouse gas emissions.

C. <u>Pilot Programs for Hard to Decarbonize Sectors</u>

To decarbonize hard–to–reach sectors, pilot programs could be created to study and understand how the use of limited green hydrogen and RNG resources can be optimized. **But these pilot programs should not be funded at the expense of robust programmatic efforts to encourage beneficial electrification or efficiency, and they should not be intended to promote using green hydrogen or RNG for space or water heating in residential or commercial buildings.**

The results of any pilot programs should identify near–term and long–term technology development needs and pathways to achieve equitable and least–cost deployment. Potential focus areas for pilot programs include:

1. **Winter Peak Energy Loads.** Given the concerns about overall system reliability and meeting winter peak energy demands, pilot programs that explore application of green hydrogen for long–term storage and peak load electricity generation should be prioritized. This could be a key technology to achieve 100% renewable energy for electricity and

carbon–free heating for buildings all year long. The OPUC should direct utility investments in green hydrogen toward this application rather than needlessly using green hydrogen for heating buildings.

2. **High–heat Applications**. Some industrial processes require high–heating temperatures that cannot be readily and economically achieved with electricity. The OPUC should explore pilot programs for such applications.

3. **Transportation**. Green hydrogen also holds some promise for hard–to–electrify transportation applications such as some trucking and shipping applications and air transportation. The OPUC should identify pilot programs for these applications.

IV. <u>The OPUC Must Re-examine Ratemaking to Prevent Imprudent Gas Costs and Better Protect Ratepayers</u>

The OPUC has an obligation to ensure rates are "reasonable and just[.]"[33] In compliance with this responsibility, the OPUC should seek to limit further investment in the gas system in order to mitigate the future rate impacts of stranded assets. Of critical importance is reformation of Oregon's line extension policies to better align with the reality of a decarbonized energy system in the future. Relatedly, the OPUC should consider other methods of incorporating stranded–asset risk into its decisions, such as evaluating circumstances when accelerated depreciation is appropriate, exploring securitization, and performance–based ratemaking. Of primary concern, however, is understanding and addressing the needs and views of LMI ratepayers.

A. <u>The OPUC Must Understand and Address the Needs of Low–income Ratepayers in Ratemaking Processes (implementing HB 2475)</u>

House Bill 2475 (HB 2475), which will take effect on January 1, 2022, empowers the OPUC to take into consideration the "differential energy burdens" facing low–income customers in establishing gas utility rates.[34] The law specifically authorizes the OPUC to consider "other economic, social equity or environmental justice factors that affect affordability for certain classes of utility customers."[35] It defines "environmental justice communities" to include "communities of color, communities experiencing lower incomes, tribal communities, rural communities, coastal communities, communities with limited infrastructure and other communities traditionally underrepresented in public processes and adversely harmed by

[33] Or. Rev. Stat. § 757.020
[34] H.B. 2475 § 2, 81st Leg. Assemb., Reg. Sess. (Or. 2021).
[35] *Id*. § 2.

environmental and health hazards, including but not limited to seniors, youth and persons with disabilities."[36]

In addition to measures such as "comprehensive classifications, tariff schedules, rates and bill credits," the law authorizes the OPUC to work to reduce the energy burdens of environmental justice communities through other bill reduction programs, including demand response or weatherization.[37]

Without proper regulatory action—as the Regulatory Assistance Project warns—Oregon's gas transition will disproportionately burden LMI communities and customers, who already spend a higher percentage of their income on energy bills.[38] These energy burdens frequently force LMI customers to forgo essential needs, such as choosing to skip in–home heating during cold winter months in order to pay for children's meals.[39] At the same time, many LMI customers lack the financial resources that will enable wealthier customers to quickly switch from gas to electric appliances once rates inevitably rise and make electric options more cost–effective.

Despite these obstacles, under HB 2475 the OPUC has a range of tools at its disposal to minimize the potentially–negative financial impacts of the gas transition on LMI individuals and other historically–disadvantaged communities.

Some examples of actions the OPUC might take to provide for an equitable transition include: 1) creating dedicated rate classes for LMI customers; 2) ensuring these individuals are not unfairly penalized; and 3) providing financial incentives, including discounted rates, heavily subsidized repayment plans, and policies to prevent appliance disconnection. While these are all possibilities, it is imperative that key stakeholders—including organizations representing low–income and environmental justice communities—be involved in designing the appropriate rate structures and policies affecting LMI individuals and communities.

The challenges facing LMI customers have grown increasingly difficult over the past 18 months, with increases in job losses, housing insecurity, the end of enhanced unemployment benefits, and many people spending more time at home whenever possible due to the pandemic. As such, it is imperative that the OPUC make concerted efforts to engage directly with LMI customers and other underserved communities in drafting these regulations.

Key accessibility measures should include providing live interpretation services to provide language access for individuals with limited English proficiency, as well as scheduling public meetings during evenings and weekends to allow for broader participation. Furthermore,

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[36] *Id*. § 1(5).
[37] *Id*. § 7.
[38] *Under Pressure* at 9.
[39] Clean Energy Oregon, *Energy Affordability Act (House Bill 2475) Passes Oregon Senate with Bipartisan Suppor*t (May 13, 2021), *available at* https://cleanenergyoregon.org/en/news/hb2475-victory.

meetings should be simultaneously conducted with remote and in–person options—with a focus on holding meetings in familiar and accessible venues in underserved communities—to maximize possible attendance.

B. Oregon's Line Extension Policies Must Be Reformed

Line extension policies merit re–examination in light of expectations of declining gas demand. The OPUC has an important role in determining the amount of gas service line extension allowance, if any, will be given. That calculation is related to the probable revenue for gas, which given Oregon's climate directives, we expect to be less over time as gas is phased out.

The general policy for connections to the gas system is found in OAR 860-021-0050:

> Each gas utility shall furnish a gas service from the gas main adjacent to the customer's premises to and including the meter. Each gas utility shall develop, with the Commission's approval, a uniform policy governing the amount of service extension that will be made free to connect a new customer. This policy should be related to the investment that can prudently be made for the probable revenue.

The exact formula for a line extension allowance varies by utility (see Attachment 1). The general policy is that gas companies provide allowances for gas line connections of up to 40 feet.[40]

> **Avista:** The extension from existing distribution mains to the premises to be served does not exceed *three (3) times the estimated annual gross revenue* as determined by the Company to be derived from bonafide applicants for such service; provided, however, that the *request for service shall be of such permanence as to warrant the expenditure involved.*[41]
>
> **Cascade**: Cascade will provide an extension allowance in "An amount equal to four and one–half *(4–1/2) times the estimated annual gross margin (gross revenue less cost of gas) to* be derived from each additional customer, in excess of the number of customers on which the advance was predicated, whose service line is connected directly to the main extension upon which the advance was made. Such refund shall be granted within thirty (30) days of setting of a meter for such additional customer or customers**."** Cascade also provides an additional amount at the end of the fifth year based on a formula for actual gas used, less the estimated annual therms used in calculating the advices time five, and if the difference between these is a positive number an additional refund is calculated by

[40] *See* Order No. 01-1024, No. AR 240 (Or. Pub. Util. Comm'n Dec. 3, 2001)
[41] Avista, Or. Pub. Util. Comm'n Rule No. 15, Gas Main Extensions, *available at* https://www.myavista.com/-/media/myavista/content-documents/our-rates-and-tariffs/or/or_15.pdf [hereinafter "Avista Rule 15, Gas Main Extensions"].

multiplying this number by the gross margin per therm employed in determining the original free footage allowance.[42]

Northwest Natural: Northwest Natural has a per dwelling gas line extension allowance that varies based on the types of gas appliances contained in the dwelling. For homes with gas heating, the allowance is $2875, for gas water heaters, $2100, and for a gas range or dryer, $850. In total, the max allowance is $5825 for a single–family dwelling.[43]

Line extension allowance policy reforms should include the following:

1. **Eliminate gas line extension allowances.** The current line extension allowance policies favor connecting more and more homes to a gas system that over the next few years will be phased out and ultimately eliminated. This is counter–productive to Oregon's climate goals and decarbonization objectives.

   The general principles of ratemaking also support eliminating these allowances. First, the gas system will not be used and useful in the near future as gas is phased out. Second, these new gas lines will ultimately become stranded assets as customers move to fully electrify and gas lines are no longer needed. Third, even under the existing line extension allowance policy, in OAR 860-021-0050, the amount of the line extension allowance "should be related to the investment that can prudently be made for the probable revenue." With probable revenues moving lower and towards zero, the **investment in any line extension is imprudent.** Fourth, the individual utility policies also account for the permanence of such an investment and is tied to future revenues. For example, Avista's line extension allowance policy notes that such allowances and new requests for service "*shall be of such permanence as to warrant the expenditure involved*."[44] Each utility's formulas are also predicated on expected revenue from gas customers, whether it is three or four and a half times the expected gross revenue or the installation of certain gas appliances in homes.[45] If the gross revenue figures are decreasing and moving towards zero, and appliances are electrified, then the line extension allowance should commensurately decrease and move to zero.

[42] Cascade Natural Gas, Or. Pub. Util. Comm'n Rule No. 10, Main Installations, *available at* https://www.cngc.com/wp-content/uploads/PDFs/Rates-Tariffs/Oregon/10-main-installations.pdf [hereinafter "Cascade Rule 10, Main Installations"].
[43] NW Natural, Or. Pub. Util. Comm'n Schedule X, Distribution Facilities Extensions for Applicant-Requested Services and Mains, *available at* https://www.nwnatural.com/-/media/nwnatural/pdfs/oregon-tariff-book---schedule/25xai.pdf?la=en&hash=16907AF6540316071184DEAA781AEBF5 [hereinafter "NW Natural Schedule X"].
[44] Avista Rule 15, Gas Main Extensions.
[45] *See* Cascade Rule 10, Main Installations and NW Natural Schedule X.

2. **Establish additional fees for new voluntary connections to the gas system to fund system decarbonization.** In addition to eliminating the gas line extension allowance, the OPUC also needs to find a way to facilitate electrification for low income customers and to avoid saddling LMI customers with the costs of decarbonizing. Thus, in addition to eliminating the gas line extension allowance, the OPUC should consider adding additional fees for new voluntary connections to the gas system since any new infrastructure will **add to the cost of decarbonizing the entire system**. It is reasonable and in the best interest of existing customers to shift the cost and risk of new gas connections onto new, higher–wealth customers who insist on utilizing gas instead of other lower carbon alternatives, rather than expecting existing LMI customers to bear those costs.

3. **Increase line extension allowances for electrification.** The OPUC should also explore proactive policies that increase the line extension allowance[46] for electrification, and consider additional funding for other "behind the meter" upgrades needed to facilitate electrification, such as panel and circuitry upgrades for existing buildings. Line extension allowances for these "behind the meter" upgrades that are necessary in many existing homes in order to install electric heat pumps or EV charging circuits could be justified based on the anticipated additional electricity demand from those devices.

In light of changing climate policies, line extension allowances for gas are no longer appropriate in Oregon.

C. <u>The OPUC Should Consider Circumstances when Accelerated Depreciation is Appropriate</u>

Lowering the rate base is an important strategy to mitigate the long–term rate increases we can expect to see for gas customers who remain on the system in the coming decades, while lowering the risk of stranded assets. Accelerating depreciation is one way to lower the rate base, and the OPUC should evaluate accelerated depreciation in two distinct scenarios. Additionally, the information gleaned from evaluating proposed investments through a depreciation lens could be a useful tool.

First, for existing gas infrastructure, the OPUC should evaluate accelerating depreciation on the remaining book value of these assets. Many gas infrastructure investments have extremely long asset lives, in some cases reaching 60 or even 80 years. As a result, even for infrastructure that was installed and deemed prudent decades ago, there may be significant remaining undepreciated book value meant to be recovered from ratepayers over the next several decades. Over the

[46] The newer electric line extension allowance for PGE can be found in Order No. 20-483, No. UE 385 (Or. Pub. Util. Comm'n Dec. 23, 2020).

coming years, it is extremely likely that significant numbers of gas customers will transition to all–electric systems, that the gas system may need to change or shrink significantly, and that remaining gas infrastructure may become obsolete. **If the depreciation schedules remain unchanged, it is likely that gas infrastructure may become stranded assets and that customers who remain on the gas system for longer (e.g., lower–income and middle–income customers) will be responsible for disproportionately high shares of the depreciation expense.**

Accelerating the depreciation schedule can help to ensure that a large customer base helps pay for the costs of existing—and previously deemed prudent—investments rather than allowing the remaining costs of the existing system to fall on those with the least ability to pay. While accelerating the depreciation schedule can result in a short–term rate increase, paying off the debt sooner ultimately lowers costs. While the potential rate shock should be closely examined and strategies should be developed to limit impact on low–income customers, **allowing depreciation schedules to remain unchanged puts gas utility customers remaining on the system at greater risk of significant rate increases in the future.**

Second, when evaluating *new* infrastructure, the OPUC should evaluate costs on a shorter depreciation schedule: 10–years or even less. While utility capital investments are often designed to last for multiple decades, new investments in gas infrastructure—especially those related to heating buildings—are unlikely to remain economically prudent over such a long time horizon. Any new investment in the build out of gas infrastructure should be closely scrutinized and have its costs evaluated on a short–term timeframe in order to fully evaluate likely costs to ratepayers. **If gas utilities choose to nevertheless pursue new infrastructure projects with longer assumed lifespans, the OPUC should make clear that ratepayers will only be responsible for the costs through the project's first ten years,** unless the gas utility can demonstrate that continued operation and maintenance of the infrastructure is in customers' best interest. Otherwise, shareholders should be responsible for any remaining undepreciated book value.

Finally, evaluating proposed infrastructure investments as being fully depreciated by 2050 to determine whether there is a significant cost to ratepayers from stranded assets could be a useful tool. While the OPUC may not necessarily require investments to be depreciated on this schedule, the evaluation may serve to clarify the trade–offs inherent in comparing proposed gas infrastructure investments and non–pipes solutions.

D. <u>The OPUC Should Explore Securitization</u>

In conjunction with the legislature, the OPUC should explore the possibility of utility securitization in Oregon. As Oregon moves toward a decarbonized energy grid, the potential for stranded assets related to the existing gas system increases. While accelerating an asset's depreciation schedule in order to avoid that asset from becoming stranded is one solution, it can also quickly drive up rates, resulting in a rate shock for customers. Securitizing certain past investments offers an alternative solution that is often lower cost.

At its core, ratepayer–backed securitization is refinancing, similar to a homeowner refinancing a mortgage in order to take advantage of lower interest rates. In the utility context, debt still owed on certain assets is replaced with a lower–interest bond guaranteed by ratepayers, thereby reducing costs. There are three essential elements to securitization: (1) identification of large, well–defined, and non–recurring expenses authorized for recovery; (2) a finance order authorizing ratepayer–backed bonds to "buy out" the utility's debt; and (3) the creation of a bankruptcy–remote entity responsible for pay the bondholders.

First, the OPUC must identify assets for which securitization would be a useful tool. Importantly, before being eligible for securitization, the utility must establish that the costs have been prudently incurred and are eligible for recovery. Typically, after this showing, the OPUC will create a regulatory asset and authorize recovery of the remaining debt through securitization.

Second, the OPUC must issue a finance order authorizing the issuance of lower–interest ratepayer–backed bonds, which become a surcharge on customers' monthly utility bills. The order must be irrevocable and customers may not avoid or bypass the charge. These steps are necessary to make the resulting bonds extraordinarily low risk to investors and thus capable of securing extremely low interest rates and reducing overall costs. For instance, ratepayer–backed bonds could be available for 3 or 4 percent. This interest rate would replace the utility's current cost of capital, often upwards of 7 or 8 percent.

Third, once the bonds have been issued, the now–securitized asset would come off of the utility's balance sheet and utility shareholders would receive full repayment of their invested capital and no longer receive a rate of return on the returned capital. Ratepayers would then pay off the issued bonds at somewhere between 3 and 4 percent (or lower) compared to adjusted weighted average cost of capital, often exceeding 7 or 8 percent. The costs would appear as a separate line item on customers' bills and be paid to a specially–created, bankruptcy–remote entity responsible for paying the bondholders.

In nearly all states, legislation has been necessary to provide public utility commissions with the needed authority to issue irrevocable ratepayer–backed bonds and also to establish a bankruptcy–remote entity responsible for paying the bondholders. However, when properly established, securitization can result in significant savings compared to traditional financing costs or even accelerated depreciation. As one example, the Michigan Public Service Commission authorized Consumers Energy Company to securitize up to $389.6 million for the retirement and demolition of three coal–fired power plants which had a book value of $361.2 million. Consumers Energy

Company estimated that the weighted average interest rate for the securitization bonds would be 3.59 percent, well below the utility's then cost of capital of 9.48 percent. By securitizing the retirement and demolition, Consumers estimated that customers would save approximately $133.5 million compared to traditional financing costs.

While securitization is not currently authorized in Oregon, the OPUC could take steps now to evaluate whether securitization would be beneficial to customers and should be considered by the legislature. Integrated resource planning, across the gas and electric sectors as recommended earlier in this comment, would likely identify whether it would be beneficial to retire or decommission certain gas assets prior to the end of their depreciable life. If so, these past investments may be good candidates for securitization, in order to allow for their retirement as soon as possible and at ratepayer savings

E. <u>Revise Incentives to Align with Goals Through Performance–Based Mechanisms</u>

Increasingly, utility regulators are recognizing that traditional cost of service regulation no longer provides the correct incentives for 21st century utilities, particularly when state law and policy seek to quickly and equitably transition to a decarbonized energy system. Traditional cost of service regulation incentivizes utilities to maximize shareholder value by increasing large capital investments. However, as the OPUC considers the future of gas regulation, it is important to reevaluate whether a traditional cost–of–service regulation provides the correct incentives when reducing investment in gas infrastructure is key to transitioning to a cleaner energy mix.

The OPUC should move towards implementing a new regulatory construct that does not incentivize gas utilities to overinvest in capital projects and instead encourages smart and efficient performance, centering customers' needs. The OPUC should consider implementing a performance–based regulation, which is an alternative to cost of service regulation and can help the Commission to reorient utility objectives.

Performance–based regulation can take many forms but typically includes two components: multiyear rate plans (MRPs) and performance incentive mechanisms (PIMs). First, MRPs can provide a new revenue model for utilities that does not reward continuous large–scale capital investment. Under an MRP, revenues are not reconciled with actual costs. Instead, the utility is granted an allowed revenue and is permitted to keep a portion of cost savings during the rate plan period, which typically lasts for three to five years, during which time the utility and commission agree to avoid new rate cases. In other words, the utility must operate within its authorized revenue amounts and is rewarded for finding the most cost–effective solutions for serving customers. In this way, the utility will experience the budget as its own money at risk. The OPUC should take care to avoid creating incentives for gas utilities to *add* customers, which would be the case if allowed revenues in an MRP were based on a per–customer figure.

When considering whether to implement an MRP, the OPUC should closely examine any adjustor or "tracker" mechanism that would allow the utility to recover fluctuating costs.[47] Adjustor mechanisms can undermine effectiveness of an MRP design when utilities track costs that are consistently increasing but not costs that are decreasing, meaning that customers are not capturing the gains from decreased costs. The OPUC should pay particular attention to any proposed tracker for infrastructure replacement or similar that would allow utilities to replace gas distribution lines or other infrastructure without appropriate scrutiny

Second, performance–based regulation typically includes performance incentive mechanisms, or PIMs, which can create a counter balance to the potential downside of MRPs, in that utilities may be incentivized to reduce costs at the expense of customer service or other utility performance. Importantly, however, PIMs can be used with or without an MRP and thus could be implemented immediately because, even as part of a traditional cost–of–service regulation, PIMs can be used to express regulatory expectations and connect those expectations with financial consequences.

Various options exist to establishing a PIM framework, but common examples include: establishing a system of penalties and rewards while keeping more traditional ratemaking features in place; and/or reducing the baseline return on equity built into the revenue requirement but allowing a utility to achieve a typical profit level with good performance or even to exceed a typical profit level with excellent performance. The specific details for which utility actions to reward or penalize can be quite flexible, covering topics such as quality of service, fair treatment of low–income ratepayers, and/or decarbonization goals.

The OPUC should begin evaluating the benefits of incorporating PIMs into either its current ratemaking regulatory scheme or through a MRP by clearly establishing goals for utilities, such as: exceeding the greenhouse gas emission reduction requirements under the Climate Protection Plan, facilitating high electrification of residential and commercial buildings, increasing energy efficiency, and/or establishing low and middle–income ratepayer programs that would facilitate energy efficiency and carbon reduction. In addition, **the OPUC should consider developing targets against which to judge the utilities' performance.** Some targets may be set based on a known baseline, such as exceeding greenhouse gas reduction requirements of the CPP, while other targets will require the OPUC to first establish a baseline. For example, if the OPUC would like to encourage greater energy efficiency gains, it could require that the utilities report a simple metric, such as kilowatt hours of energy the utility helped customers save compared to total kilowatt hours of energy sold, and set a target based on the known baseline.

[47] For example, in Oregon, the Transition Adjustment Mechanism, which allows utilities to recover yearly fuel costs, would be an adjuster or tracker mechanism that should be closely scrutinized.

Finally, **the OPUC should also consider financial incentives or shared–savings mechanisms that could serve as a reward for meeting performance targets.**

While there are many possible PIMs formulations, the OPUC can implement various options incrementally and iteratively. **The important thing is to ensure that the OPUC has the right metrics on hand against which to establish targets and devise financial incentives.** This requires establishing clear expectations for utilities as Oregon undergoes a vast energy transformation to meet its ambitious climate goals.

In conclusion, we urge Commissioners to do everything in their authority to support a just, equitable and rapid transition off of methane gas. While supporting this transition, it is critical that the Commission protect ratepayers' best interests, including ensuring access to affordable and reliable energy. As we have heard in this proceeding from experts at the Regulatory Assistance Project (RAP), there are a variety of planning, program, and ratemaking tools the Commission can use to facilitate and manage this transition. And as we outlined above, we believe the most critical tools the Commission should undertake immediately include:

1. Updating gas utilities' Integrated Resource Planning (IRP) guidelines so that the risk of continued and expanded investments in gas infrastructure, including renewable natural gas, is shouldered by shareholders rather than customers;

2. Lowering barriers to electrification and energy efficiency immediately, while eliminating and urgently phasing out incentives for gas infrastructure and appliances, respectively;

3. Creating new programs to support beneficial electrification and energy efficiency, particularly for low– and moderate–income (LMI) customers;

4. Protecting LMI customers by actively engaging with relevant stakeholders to understand and address their needs through new programs and rate designs.

5. Creating a comprehensive gas and electric utility planning process that involves a wide diversity of stakeholders.

Thank you for your consideration of our comments and we look forward to continuing to participate in this process.

Signed,

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ATTACHMENT 1

I. Avista Corporation – Rule No. 15[48] – Gas Main Extensions:

Extensions to Individual Applicants

1. Free Extension

Gas main extensions will be made by the Company, provided the estimated total cost of the required extension from existing distribution mains to the premises to be served does not exceed three (3) times the estimated annual gross revenue as determined by the Company to be derived from bonafide applicants for such service; provided, however, that the request for service shall be of such permanence as to warrant the expenditure involved.

2. Extension Beyond Free Length

    a. An extension where the estimated cost is more than three (3) times the estimated annual gross revenue shall be constructed by the Company upon fulfillment of the following conditions:
        i. The execution of a main extension agreement.
        ii. The applicant or group of applicants shall advance in cash to the Company an amount equal to the difference between the cost of the extension and three (3) times the estimated annual gross revenue times the number of applicants.
    b. Upon completion of an extension, where an advance is made based on the estimated cost thereof, said advance will be adjusted only where the actual cost is found to be less than the estimated cost.
    c. The amount advanced hereunder will be subject to refund, without interest, as provided for in Section B.3.

3. Method of Refund

The amount advanced in accordance with Section B.2. will be subject to refund in the following manner:

    a. A refund will be made for each additional customer connected to an extension for which all advance payments have not been refunded, equal to the amount by which three (3) times the estimated annual revenue exceeds the cost of a construction to serve such additional customer.
    Where there is a series of extensions, on any of which an advance is still refundable, and the Company makes succeeding free extensions with excess allowances (three (3) times the estimated annual revenue times the number of applicants less the cost of construction to serve), refunds will be made to repay in turn each of such advances which remain refundable beginning with the first series from the original point of supply. When two or more parties make a joint advance on the same extension, refundable amounts will be distributed to these

[48] Avista, Or. Pub. Util. Comm'n Rule No. 15, Gas Main Extensions, *available at* https://www.myavista.com/-/media/myavista/content-documents/our-rates-and-tariffs/or/or_15.pdf/.

parties in the same proportion as their individual advances bear to the total joint advance.

b. No refunds will be made by the Company on advances, or portions thereof, covering extensions which have been in service more than five (5) years.

c. Any assignment by a customer of his interest in any part of a cash advance made as above which at the time remains unrefunded, must be made in writing and endorsed by the Company showing the amount still unrefunded, and a copy of such assignment bearing the signature of both the assignor and assignee must be filed with the Company before it shall be effective and binding upon the Company.

d. Any portion of the cash advance which shall remain in the possession of the Company after the termination of the refunds as above provided for shall become the property of the Company.

*See Rule No. 15 document for separate formula governing main extensions to subdivisions

II. **Cascade Natural Gas Corporation – Rule 10[49] – Main Installations:**

The Company may require the applicant(s) pay all costs for the main installation that are in excess of the allowance plus 11.7% for federal income taxes. Customer contributions may be subject to refund without interest on the following basis:

1. An amount equal to four and one-half (4-1/2) times the estimated annual gross margin (gross revenue less cost of gas) to be derived from each additional customer, in excess of the number of customers on which the advance was predicated, whose service line is connected directly to the main extension upon which the advance was made. Such refund shall be granted within thirty (30) days of setting of a meter for such additional customer or customers.

2. An additional amount determined at the end of the fifth year as follows:

a.	Actual therms billed for the five-year period to the customer or customers upon which the advance was predicated	XXXX
b.	Less estimated annual therms used in calculating the advance* (5)	XXXX
c.	Difference	XXXX

If (c) is a positive number, an additional refund shall be calculated by multiplying (c) by the gross margin per therm employed in determining the original free footage allowance:

3. Refund or refunds in total shall not exceed the total amount advanced. If the total advanced has not been fully refunded within five (5) years of the date the advance was received by the Company, any remaining unrefunded amount shall become the property of the Company.

[49] Cascade Natural Gas, Or. Pub. Util. Comm'n Rule No. 10, Main Installations, *available at* https://www.cngc.com/wp-content/uploads/PDFs/Rates-Tariffs/Oregon/10-main-installations.pdf.

4. When two (2) or more parties make a joint advance on the same extension, refund amounts which become payable will be allocated to such parties in proportion to the amounts advanced by the party.

All facilities installed under this rule shall be the property of and under the control of the Company at all times and may be extended to serve other customers at the option of the Company.

III. Northwest Natural Gas Company – Schedule X[50]

a. Construction Allowance

The Construction Allowance **per residential dwelling** is based upon the gas-fired appliances to be installed, as set forth in the table below:

Category	Description	Notes	Construction Allowance (**per Premise**)
A	Primary Natural Gas space heating (does not apply to centralized space heating that serves multiple units)	1	**$2,875**
B	Primary Natural Gas water heat (does not apply to centralized water heating that serves multiple units) Natural Gas heating fireplace for primary space heating Natural Gas wall heat for primary space heating	2	**$2,100**
C	Range, Cook top, Clothes dryer	3	**$ 850**
D	Gas barbecue, log lighter, gas log, tiki torch, Bunsen burner, pool, spa, or hot tub water heaters, standby space heating equipment including but not limited to natural gas back-up to electric heat pumps; non-primary space or water heat equipment; equipment installed in a detached garage, shop, or outbuilding	4	**$0**

1. Alone or in combination with any additional Category A-D gas-fired appliances.
2. Alone or in combination with any additional Category B-D gas-fired appliances.
3. Alone or in combination with any additional Category C-D gas-fired appliances.
4. Alone or in combination with any additional Category D gas-fired appliances.

[50] NW Natural, Or. Pub. Util. Comm'n Schedule X, Distribution Facilities Extensions for Applicant-Requested Services and Mains, *available at* https://www.nwnatural.com/-/media/nwnatural/pdfs/oregon-tariff-book---schedule/25xai.pdf?la=en&hash=16907AF6540316071184DEAA781AEBF5.

Maximum construction allowance for a single residential dwelling: $5825

b. Refunds of Construction Contributions

When the installation requires a Main Extension, any Construction Contribution paid may be subject to refund. A refund opportunity exists only when a new Service Line installation is added along the Main Extension within thirty-six (36) months from the date that the Main Extension was installed.

The Company will review Main Extension activity at the end of the thirty-six (36) month period to determine whether a refund of a Construction Contribution is due. The Company will perform a refund calculation prior to the end of the refund period upon specific request from the original contributor.

To determine the amount available for refund, the construction cost and the Construction Allowance will be updated. The construction cost will equal the actual construction cost of the original installation plus the cost of the subsequent connection. The Construction Allowance will equal the original Construction Allowance plus the Construction Allowance afforded the subsequent Applicant. If the resulting Construction Contribution is less than the Construction Contribution paid by the original contributor, then a refund equal to such difference will be issued to the original contributor. Example Calculation for a single original contributor:

Cost	Allowance	Contribution	Description
$ 6,900			Cost of original Main Extension with 1 Service Line
	$ 2,875		Less Original Construction Allowance
		$ 4,025	Original Construction Contribution Paid
$ 2,042			Add cost of new connection to Main Extension
$ 8,942			Updated cost of Main Extension and 2 Service Lines
	$ 5,750		Less Construction Allowance on 2 Service Lines
	$ 3,192		Revised Construction Allowance (updated cost less updated Construction Allowance)
		$ 833	Refund to Original Contributor (original contribution less updated Construction Allowance

In no event will a refund exceed the amount of the original Construction Contribution.