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Colin McConnaha
Manager, Office of Greenhouse Gas Programs
Oregon Department of Environmental Quality
Via email to CapandReduce@deq.state.or.us

Re: Comments on Cap and Reduce Program Technical Workshop 1: Program Scope

Dear Mr. McConnaha:

The Green Energy Institute at Lewis & Clark Law School is a nonprofit energy and climate law and policy institute within Lewis & Clark's top-ranked environmental, natural resources, and energy law program. Our team of attorneys and law students work to design comprehensive legal and policy strategies to address climate change and support a swift transition to a clean and renewable energy system. We appreciate the opportunity to comment on the Department of Environmental Quality's (DEQ) Cap and Reduce Program Technical Workshop on Program Scope.

In addition to addressing the specific issues and considerations discussed during the technical workshop, we encourage DEQ and the Environmental Quality Commission (EQC) to consider some overarching principals and constraints when determining the appropriate scope of the cap and reduce program. First, DEQ and the EQC should ensure that the cap and reduce program will facilitate quick and meaningful reductions in greenhouse gas emissions (GHG) along a pathway that is consistent with achieving the statewide GHG reduction targets established through Governor Brown's Executive Order 20-04 (EO 20-04). By itself, a cap and reduce program almost certainly will not reduce Oregon's GHG emissions to 80% below 1990 levels by 2050. If designed well, however, cap and reduce could spur regulated sectors to invest in new technologies, reduce energy consumption, and transform existing markets to a degree that puts the state on a path to achieving our climate targets.

Second, when determining which gases, fuels, activities, and sources should be regulated under the program, the EQC and DEQ should aim to maximize emissions reductions from sources that fall within the agency's jurisdiction and avoid establishing additional exemptions for certain sources or sectors. Unless necessary to comply with the federal Clean Air Act, Oregon law exempts certain activities, equipment, and emissions from regulation under the state's air

pollution laws, including agricultural operations and equipment and carbon dioxide (CO_2) emissions from biomass combustion and decomposition.[1] Oregon's air pollution laws also likely preempt the EQC from imposing emissions caps on out-of-state sources, including electricity generating units. Because emissions associated with imported electricity represent approximately 16% to 20% of Oregon's total anthropogenic GHG emissions, and the agricultural sector contributes approximately nine percent of total GHG emissions, the cap and reduce program will at most apply to 75% of Oregon's anthropogenic GHG emissions.[2]

Due to these legal limitations, the EQC must cap and reduce GHG emissions from as many jurisdictional sectors and sources as possible to put Oregon on a trajectory to meet its statutory GHG reduction goals and the science-based GHG targets established through EO 20-04. The EQC should avoid issuing exemptions for any gases, sources, or activities that contribute to Oregon's anthropogenic GHG emissions and would impede the state's progress toward its GHG reduction targets. The cap and reduce program will only be effective if it maximizes emissions reductions from all sources under the EQC's jurisdiction.

Third, DEQ and the EQC should design the program to provide an emissions reduction backstop for Oregon's other climate and energy policies, rather than serve as a substitute or replacement for other programs and mechanisms that address GHG emissions. While a cap and reduce program has the potential to meaningfully reduce emissions from fossil fuel combustion and other industrial processes, it does not nor should not represent Oregon's sole strategy for addressing the state's anthropogenic climate impacts. Oregon has a variety of other programs and standards in place to help its economy transition to carbon-free energies and technologies, such as a renewable portfolio standard (RPS), a low carbon fuels standard, zero emissions vehicle standards, and a CO_2 standard for new power plants. These existing standards are complimentary to a cap and reduce program and will help facilitate compliance with a statewide GHG emissions cap. However, Oregon's existing climate and energy policies are not effective substitutes for an enforceable cap on anthropogenic emissions. Some regulated sources will likely find that their efforts to comply with other programs will help facilitate compliance with their cap and reduce obligations, but the EQC and DEQ should not assume that a source's compliance with another regulatory program negates the need for regulation under the cap and reduce program. The cap and reduce program should serve as a backstop for Oregon's other complimentary climate policies to ensure the state's progress in reducing GHG emissions.

The following comments aim to respond to the specific questions raised by DEQ under each of the technical workshop's discussion topics. We particularly want to emphasize the importance of regulating emissions from in-state electricity generating units under the cap and reduce program, which we describe in greater detail in Part IV of these comments.

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[1] OR. REV. STAT. § 468A.020.

[2] According to data presented in the Cap and Reduce Technical Workshop 1 slides, emissions from imported electricity totaled approximately 12.7M MTCO2e in 2018. Oregon's 2018 anthropogenic emissions total has not yet been finalized, but these imported electricity emissions would represent approximately 20% of the state's 2017 emissions. OR. DEPT. OF ENVT'L QUALITY, TECHNICAL WORKSHOP 1: PROGRAM SCOPE (2020), *available at* https://www.oregon.gov/deq/ghgp/Pages/ghg-cap-and-reduce.aspx.

I. Greenhouse Gas Emissions

1. *Which GHGs might be regulated? Why?*
2. *Are there specific gases that should be considered for exemption?*
3. *Which GHGs relating to industrial processes should be regulated at large stationary sources? Why or why not?*

All gases that fall within the definition of "greenhouse gas" under ORS 468A.2010 should be subject to regulation under the cap and reduce program. The program should prioritize reductions in carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and the high global warming potential (HGWP) gases, including hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). These gases are currently included in Oregon's GHG emissions inventory based on their CO_2 equivalencies and are subject to reporting requirements under the state's GHG Reporting Program, so DEQ and major emitting sources already have systems in place for measuring and tracking emissions of these gases.

The EQC and DEQ should not exempt any specific gases or categories of gases from regulation under the cap and reduce program. The program should cover all anthropogenic GHG emissions, including but not limited to CO_2, CH_4, N_2O, and the HGWP gases. The program should include mechanisms for subjecting additional gases to regulation in the future if the gases are found to contribute to climate change and are emitted through anthropogenic activities.

The program should regulate all anthropogenic GHG emissions produced through industrial processes at large stationary sources. Carbon emissions from industrial natural gas and petroleum combustion must be subject to regulation under the program, as well as CO_2, CH_4, and HGWP emissions produced directly through industrial processes.

II. Fuel Suppliers

1. *Which fuels and activities result in emissions that should be regulated? Why?*
2. *What tradeoffs are important when establishing emissions thresholds for inclusions?*
3. *Which entities should be responsible for which sources of emissions and therefore might be covered? Why?*
4. *Are there fuel types and/or fuel uses that should be considered for exemption?*
5. *What Clean Fuels Program Considerations are there?*

The transportation sector is the largest source of GHG emissions in Oregon, and the vast majority of these emissions result from the combustion of gasoline and diesel fuels in internal combustion engines. The program should aim to maximize emissions reductions from all transportation fuels and sources under the agency's jurisdiction by establishing low applicability thresholds that cover the greatest number of regulated sources.

Transportation fuels such as gasoline and diesel fuels should primarily be regulated at the supplier level to avoid potential legal preemptions under state or federal law. The federal Clean Air Act preempts the EQC and DEQ from directly regulating emissions from nonroad and new

on-road motor vehicles and engines.[3] Oregon law preempts the EQC and DEQ from regulating emissions from engines used in agricultural operations, unless such regulations are necessary to implement the federal Clean Air Act.[4] In addition to avoiding these legal constraints, regulating at the fuel supplier level would likely ease administrative burdens by reducing the number of entities subject to regulation. However, this strategy would also impose compliance obligations on entities that do not have direct control over the equipment and activities that contribute to Oregon's transportation sector emissions. The EQC could potentially shift compliance obligations onto some non-agricultural emitters by regulating bulk purchases of transportation fuels.

III. Large Stationary Sources

1. *Which fuels and activities result in emissions that should be regulated? Why?*
2. *What tradeoffs are important when establishing emissions thresholds for inclusions?*
3. *Which entities should be responsible for which sources of emissions and therefore might be covered? Why?*
4. *Are there facilities that should be considered for exemption?*
5. *Should natural gas be regulated on-site at the user? Why or why not?*

All large stationary sources that are subject to Oregon's GHG reporting requirements should be regulated under the cap and reduce program, with a near-term focus on reducing anthropogenic emissions from industrial sources, such as manufacturing facilities, foundries, mills, and processing plants. The program should regulate all natural gas and petroleum consumed by large stationary sources and regulate all stationary source activities that directly produce anthropogenic GHG emissions, including HGWP gases. Industrial facilities are a major source of GHG emissions in Oregon, and these facilities have control over the equipment and processes that produce on-site GHG emissions. Industrial facilities also typically emit other air pollutants in addition to GHGs, so requiring on-site reductions of GHG emissions will likely reduce emissions of other harmful air pollutants as well.

When establishing emissions thresholds for regulation under the cap, DEQ and the EQC should consider the percentage of GHG emissions produced under various thresholds and aim to maximize emissions reductions as quickly as possible. Based on 2017 reporting data, an emissions threshold of 5,000 metric tons of CO_2-equivalent ($MTCO_2e$) would cover 98% of anthropogenic emissions from large stationary sources, while a threshold of 50,000 $MTCO_2e$ would only cover 86% of anthropogenic emissions.[5] To achieve the state's 2035 and 2050 GHG reduction targets, it will therefore likely be necessary to regulate a larger number of sources by setting a lower applicability threshold.

[3] Clean Air Act § 209, 42 U.S.C. § 7543(a), (e). The Act includes an exception for California, which may seek a waiver from EPA to adopt its own emissions standards if certain conditions are met. *Id.* § 7543(b), (e). States with Clean Air Act nonattainment plans, including Oregon, may adopt California emissions standards that have received an EPA waiver. *Id.* §§ 7507, 7543(e).

[4] OR. REV. STAT. § 468A.020(1)(b), (2).

[5] OR. DEPT. OF ENVT'L QUALITY, 2017—GREENHOUSE GAS EMISSIONS FROM FACILITIES HOLDING AIR QUALITY PERMITS, *available at* https://www.oregon.gov/deq/aq/programs/Pages/GHG-Emissions.aspx.

Large stationary sources should generally be responsible for reducing their direct GHG emissions produced through on-site activities. Regulating direct GHG emissions from industrial facilities would likely help reduce emissions of other harmful air pollutants, which would provide dual climate and community benefits, particularly in environmental justice communities. Non-industrial commercial or municipal facilities that are subject to Oregon's GHG reporting rules and only produce on-site emissions through natural gas combustion for space and water heating could be regulated directly or through their gas suppliers.

IV. The Electricity Sector

1. *In an Oregon-only program, what are the benefits/risks of including in-state generators?*
2. *What is your take on the level of leakage risk in Oregon for the electricity sector?*

Oregon's cap and reduce program must regulate emissions from in-state electricity generation in order to achieve the state's GHG reduction targets. After the Boardman coal-fired power plant is removed from service this year, natural gas-fired electricity generating units will be the greatest individual sources of GHG emissions in Oregon. In 2017, in-state natural gas-fired power plants emitted approximately 6.35M $MTCO_2e$, and in 2018 those emissions increased to 7.19M $MTCO_2e$.[6] In the aggregate, emissions from in-state natural gas plants represent approximately 10 percent of Oregon's total GHG emissions.[7] It would defeat the purpose of the cap and reduce program to exempt in-state power plants from regulation under the program. The electricity sector produced approximately 26% of Oregon's GHG emissions in 2018, and the EQC likely lacks jurisdiction to cap and reduce the emissions produced by out-of-state power plants that export power into Oregon. Exempting in-state generation from regulation would therefore compromise the cap and reduce program's potential to help achieve the GHG reduction targets identified in Governor Brown's executive order.

We do not believe leakage represents a significant enough risk to justify exempting in-state natural gas-fired electricity generation from regulation under a cap and reduce program. The Oregon Public Utility Commission (PUC) can effectively mitigate leakage risks associated with investor-owned utilities (IOUs) operating in Oregon, and climate policies in neighboring states and the lack of available east-west transmission capacity significantly reduce non-IOU-related leakage risks.

First, the PUC has authority to mitigate leakage risks related to IOUs that own (in full or in part) natural gas-fired electricity generating units operating in the state. Oregon law only permits IOUs

[6] *Id.* Emissions estimates were supplemented by EPA data for in-state natural gas-fired electricity generating facilities that are not included in DEQ's data. U.S. ENVT'L PROTECTION AGENCY, 1995 VS. 2018 ANNUAL CO_2 COMPARISONS: ACID RAIN PROGRAM AND CROSS-STATE AIR POLLUTION RULE EMISSIONS AND CHANGES AT FACILITIES (2019), *available at* https://www.epa.gov/airmarkets/power-plant-emission-trends.

[7] A small percentage of electricity produced by in-state power plants is exported for sale in other states, and DEQ excludes the emissions associated with these exports from Oregon's GHG inventory. However, due to the jurisdictional limits and purpose of the cap and reduce program, all emissions from in-state power generation should be covered under the statewide emissions cap. In 2018, in-state fossil fuel-fired power plants emitted approximately 9.9M MTCO2e, with natural gas plants emitting 7.19M MTCO2e.

to recover costs associated with assets that are "presently used for providing utility service" to customers.[8] This means that PGE and PacifiCorp may only recover and earn a rate of return on their capital investments (including in-state natural gas plants) if those resources are used to provide electricity to customers. The PUC would likely approve accelerated depreciation schedules for natural gas resources if early retirement of those facilities is necessary to comply with state law; however, the PUC is unlikely to allow accelerated cost recovery for plants that are no longer in use because an IOU has chosen to avoid regulation and save costs by importing electricity from out-of-state fossil fuel-fired power plants. In addition to denying cost recovery under Oregon's "used and useful" requirement, the PUC has authority to deny cost recovery for imprudent utility resource investments through the integrated resource planning and competitive bidding processes.

Second, given the existing and likely forthcoming programs to address GHG emissions in California and Washington, it would be extremely risky and challenging for a utility or an independent power producer (IPP) to construct new natural gas-fired electricity generating units in those states for the purpose of exporting electricity into Oregon. It would potentially be feasible to construct new gas resources in Idaho or other Western states; however, Oregon currently lacks available transmission capacity to transport electricity from the state's Eastern neighbors to consumers in Western or Central Oregon.

V. Natural Gas Sector

1. *Which entities should be responsible for which sources of emissions and therefore might be covered? Why?*
2. *Should natural gas be regulated entirely at the utility (for transport and sales) or disaggregated to utility and gas marketers on that distribution system? Pros/cons?*

Natural gas use and transport produces a significant portion of Oregon's anthropogenic GHG emissions, and the cap and reduce program should cover all emissions from the direct use of natural gas in buildings and industrial facilities, as well as any additional emissions resulting from natural gas transport. Many jurisdictions across the country have started to transition away from the direct use of natural gas, and Oregon can help insulate its citizens from potential future cost impacts or supply disruptions if it starts reducing reliance on direct natural gas use sooner rather than later.

When determining the appropriate point of regulation for natural gas emissions, DEQ should consider the speed and feasibility of reducing emissions under various approaches, as well as economic and administrative efficiencies. End users generally have control over the equipment, processes, and practices that use natural gas, and these users can reduce emissions by decreasing their on-site natural gas consumption. Suppliers have little direct control over end-use demand, but can potentially reduce emissions by transitioning to renewable natural gas or helping customers increase building efficiencies and/or transition to non-emitting technologies. A bottom-up approach (*i.e.,* regulating end users) could create regulatory challenges due to the number of entities subject to regulation, but could potentially be more effective in achieving

[8] OR. REV. STAT. § 757.355(1).

near-term emissions reductions. A top-down approach (*i.e.,* regulating suppliers) could simplify the regulatory process by reducing the number of entities with compliance obligations, but could fail to achieve meaningful near-term emissions reductions.

Emissions from residential and commercial gas use should be regulated at the utility level to greatly reduce the number of regulated entities and avoid practical constraints and potential legal preemptions. However, this top-down regulatory approach risks shifting costs onto residential end users, so the program must include mechanisms to prevent or mitigate cost increases for lower-income customers that already face disproportionate energy cost burdens.

VI. CONCLUSION

We greatly appreciate DEQ's efforts to solicit and consider stakeholder input on program scope in advance of the formal rulemaking process. A program of this magnitude will have tremendous implications for Oregon's energy, transportation, and industrial sectors, but it also has the potential to spur market transformations that will make the state's economy more sustainable and resilient over the long term. In addition to reducing Oregon's climate impacts, an effective cap and reduce program will lead to healthier communities and help create new economic opportunities that will survive and thrive in a post-carbon future.

To achieve these outcomes, the cap and reduce program must apply to a vast majority of the fuels and activities that contribute to Oregon's anthropogenic GHG emissions. We strongly encourage DEQ and the EQC to design a program scope that captures as many GHG emissions as possible and will put Oregon on a path to achieving its climate goals. We appreciate your consideration of our comments.

Sincerely,

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