State of Oregon Department of Environmental Quality

Written Comments

Greenhouse Gas Emissions Program 2021 Rulemaking: Advisory Committee Meeting 2

This document is a compilation of written comments received related to the second meeting of the advisory committee for the Greenhouse Gas Emissions Program 2021 Rulemaking to develop a new Climate Protection Program. Comments related to the second meeting received after the cutoff will be included with comments from the third advisory committee meeting.

Meeting 1 – Jan. 14, 2021

Additional comments received after deadline

Meeting 2 - Feb. 17, 2021

COMMENTS IN RESPONSE TO DEQ PRESENTATION

AT FIRST CAP and REDUCE ADVISORY COMMITTEE MEETING

Submitted by

Robert E. Yuhnke

On behalf of Elders Climate Action, Oregon Chapter

I. **Executive Summary.**

Elders Climate Action (ECA) was particularly disappointed by the program outline and presentation by DEQ at the January 14 meeting of the Rules Advisory Committee for the Cap and Reduce Program as part of the Oregon Climate Action Plan (OCAP) for a host of reasons. These include –

1. A failure to even consider a zero emission program strategy designed to implement the global emissions targets identified by the Intergovernmental Panel on Climate Change (IPCC) as necessary to stabilize the climate and stop future warming.
2. A failure to explain in response to comments requesting a science-based zero emission option why a plan designed to stabilize the climate is not included in the options being considered.
3. In the absence of a commitment to achieve the reductions needed to stabilize the future climate, the failure to discuss any climate-based, public health, environmental protection or equity criteria for evaluating the effectiveness that a final reduction plan should be designed to achieve.
4. The failure to identify the reductions in CO2e needed to implement, and the failure to provide any rationale for not adopting, the 80% reduction from 1990 emissions contained in Governor Brown's Executive Order (EO) as the minimum design criteria for a final OCAP.
5. The failure to provide any rational basis for not considering zero emission limits for CO2e emitted from in-state electric generating units, and instead declaring an intention to exclude emission reductions or limits on natural gas fired EGUs.
6. The failure to consider regulatory options designed to reduce CO2e emissions from the on-road transportation sector to zero.
7. The failure to consider reducing CO2e emissions from the transportation sector by strategies designed to replace fossil fueled internal combustion (IC) engines with commercially available zero emission vehicles.

As a result of these failures, ECA contends that the plan as currently conceived will fail to provide the reduction in GHG emissions needed to stabilize the climate, and will fail to protect the public health of Oregonians, fail to protect natural and environmental resources being harmed by a warming climate, and will allow widespread damage to Oregon's economy, disrupt the habitability of most of Oregon, and contribute to social instability in the State. For these reasons the plan, as currently conceived, fails to fulfill DEQ's statutory responsibility to protect the

public health, environment, and natural resources of Oregon, and fails to fulfill the commitment of Governor Brown's Executive Order "for the State of Oregon to reduce its GHG emissions (1) at least 45% below 1990 emission levels by 2035; and (2) at least 80% below 1990 emission levels by 2050."

II. DEQ's January Plan Scenarios Are Not Designed to Contribute to Stable Global Climate or Protect Oregon Resources at Risk.

In ECA's December comments on the modeling scenarios, we asked that DEQ include at least one scenario designed to achieve the IPCC goal of stabilizing the climate at 1.5 C above the 19th Century baseline by reducing CO2 emissions to net zero by 2050. The science is clear: climate stability can be achieved only by reducing GHG emissions to zero.

> To stabilize global temperature at any level, 'net' CO2 emissions would need to be reduced to zero. This means the amount of CO2 entering the atmosphere must equal the amount that is removed. Achieving a balance between CO2 'sources' and 'sinks' is often referred to as 'net zero' emissions or 'carbon neutrality'.[1]

We highlight this point again because of the immediate devastation climate-induced wildfire caused Oregon in 2020, and the expectation that this devastation will cause massive destruction to Oregon's environment, economy and public health as long as warming climate conditions continue to accelerate the incineration of Oregon's forest resources. The 2020 global temperature regime is now 1.2 C above the 19th Century baseline, with warming to 1.5 C by 2032, and 2.0 C by 2050. At 1.2 C, Oregon is experiencing severe wildfire conditions well outside the historical norm. The area burned in Oregon has increased 100% from 550,000 acres in 2017 to a record 1.2 million acres in 2020, with 500,000 residents evacuated ahead of the flames, 4,000 homes incinerated, 10,000 residents displaced and 11 killed.

Future warming is expected to severely exacerbate the destructive impact of wildfire in Oregon. The Oregon Climate Assessment (OCAR5.pdf | Powered by Box, Januray 5, 2021) cites studies predicting the effects of warming on seasonal heat and a six-fold increase in hot days (>90° F) during Oregon summers (pp. 12-13), and reductions in summer precipitation (Table 2). Hotter and drier summers are expected to increase the area incinerated by wild fires (pp. 48-54). Expected future hot, dry climate conditions are associated with severe fires:

> High-severity fires dominate wet, cool forests, including remnant old growth forests, in Oregon's Coast Range and western Cascade Range. High-severity wildfires in wet, cool forests typically are … facilitated by extremely dry and warm springs and summers or high winds.

The Climate Assessment (p. 53) quotes a 2017 modeling analysis that "projected a 200% increase in median annual area burned in Oregon" during the 2010-2039 period compared to 1961-2004. Another 2017 study looking at fires across the American West estimates a 200-400% increase in the "annual probability of very large fires." (p. 54).

[1] **Global Warming of 1.5° C, Chapter 2,** FAQs.

A 200% increase above 2017 will be 2.5 million acres. Oregon could well see annual wildfires burn 2.5 million acres by 2025-30 as the climate is now warming more rapidly. This rapid annual expansion in fire affected area occurred in Australia since 2017 where the area burned during their last austral summer reached 30 million acres. In 2020 California's burn area grew to nearly 5 million acres, and the total area burned in the 11 Western states exceeded 10 million acres: 2020 Western United States wildfire season - Wikipedia. Going forward, the OR Assessment (p. 53) makes clear that all "empirical models … consistently project that the area burned in Oregon will increase."

New research shows that wildfire in the western U.S. now accounts for half of PM2.5 emissions in some areas of the West.[2]

> A warming climate is responsible for roughly half of the increase in burned area in the United States (4), and future climate change could lead to up to an additional doubling of wildfire-related particulate emissions in fireprone areas (36) or a many-fold increase in burned area (37, 38). Costs from these increases include both the downstream economic and health costs of smoke exposure, as well as the cost of suppression activities, direct loss of life and property, and other adaptive measure (e.g., power shutoffs) that have widespread economic consequences.

Using satellite measurements of smoke plumes integrated with ground level monitored PM2.5 (fine particle) concentration data, the report estimates that between 7,000 and 14,500 deaths per year (depending on the dose/response curve used to estimate mortality from observed exposures) are attributable to fire smoke in the contiguous U.S. Scaling these results for Oregon suggest that hundreds of premature deaths occurred among Oregonians as a result of exposure to fire smoke in 2020. Fire smoke-related mortality will increase in future years as the area burned grows, the smoke plumes increase in density, and the smoke season lengthens in duration from 10-20 days to many weeks.

In addition to the economic and environmental damage, social disruption, and harm to health that will result from a longer fire season and expanded fire zones, more deadly air quality will likely make Oregon uninhabitable during the fire season, especially for the most vulnerable populations such as the elderly and children.

The data and modeling estimates presented in the Oregon Climate Assessment and other sources predict a future in which the destruction of Oregon's forest resources by wildfire will continue until either 1) the cool and wet conditions that sustained Cascadia's forests during the 8,000 years before 1980 are restored, or 2) the standing forests are reduced to ash. To preserve the quality of life in Oregon, save our forests and the wildlife and industries dependent on them, and to protect public health, the climate will need to be cooled to the levels associated with atmospheric loadings of GHG gases prior to 1980. To accomplish that result, the IPCC has provided clear guidance: the economy must first be converted to zero emission energy systems and forests expanded to extract CO2 from the atmosphere.

[2] Burke, M. et al., The changing risk and burden of wildfire in the United States | PNAS (Jan 11, 2021).

DEQ must acknowledge that the failure to convert the economy and energy systems to zero emissions will contribute to the destruction of Oregon's forests, and the creation of conditions likely to prevail for decades until forests are no longer available to supply the fuel for uncontrollable firestorms and their resulting air pollution. DEQ's failure to contribute to the global campaign to stabilize the climate will render the State uninhabitable during most summers for at least a generation, and leave a transformed landscape devoid of standing forests.

III. DEQ's Proposed Plan is Fundamentally Flawed By a Failure to Define the OCAP Objectives, and Provide Any Rational Basis for the Framework and Plan Exclusions.

The DEQ presentation at the January RAC meeting identified three goals for the program: reducing greenhouse gas emissions, equity and economic costs. However, the presentation failed to identify any goals to be achieved with respect to each of these three policy considerations, and failed to propose any criteria for evaluating whether a Plan presented to the EQC would accomplish the goals.

With regard to the first goal --reducing GHG emissions -- the Plan scenarios outlined by DEQ failed to include a zero emission scenario as a regulatory option, and foreclosed the possibility of a zero emission OCAP by declaring its intent to

(1) exclude gas-fired power plants from any emission reduction requirements,
(2) reduce transportation emissions by regulating fuel suppliers rather than adopting programs designed to replace fossil fuel vehicles with zero emission technologies, and
(3) to exempt some industrial processes from regulation.

ECA opposes any plan that fails to achieve the 2030 reductions and the 2050 zero emission target identified by the IPCC as necessary to stabilize the climate. Oregon must not exclude itself from the global effort needed to stabilize the climate and preserve human civilization. In addition, ECA opposes (1) the exclusion of gas-fired electric power generating units from the requirement to reduce emissions, (2) the regulation of petroleum fuels as an alternative to replacing fossil fuel vehicles with zero emission vehicles (ZEVs), and (3) the exclusion of industrial processes from emission reduction requirements.

The Cap and Reduce plan, as proposed, puts the economic interests of corporations ahead of the health, quality of life, job opportunities and economic stability of Oregon's families. This is unacceptable.

For the following reasons, ECA believes that the Cap and Reduce program as proposed represents a failure of DEQ to fulfill its statutory mission, fails to implement the Governor's EO, and is unreasonable and unlawful.

A. Failure to Define the Environmental, Social Equity and Economic Goals to be Achieved By the Plan Violates the Duty to Base Its Decision on Reasoned Decisionmaking.

1. Failure to even consider a zero emission program strategy.

DEQ revealed in the plan assumptions presented at the January RAC meeting that it is not even considering a zero emission plan as a regulatory option. Despite comments submitted in December summarizing the findings of the IPCC's 2018 Report that the climate will not be stabilized until zero GHG emissions are achieved, and that overwhelming damage to Oregon's economy, social dislocation, and environmental devastation will continue to worsen until the climate is stabilized, DEQ provides no rational basis for a failure to consider the economic, social and environmental burdens and benefits of a zero emissions scenario.

Making this decision prior to commencing the regulatory development process, and without offering any rational basis, is not consistent with DEQ's statutory obligations to protect the quality and uses of Oregon's air and water resources, to protect the public health from air pollutants emitted by both anthropogenic permitted sources and climate-exacerbated forest fires, and the contamination of warming water sources by algal blooms, mud slides and sedimentation from fire-denuded landscapes, and to protect the environment, agricultural and silvicultural production, and habitat for wildlife by preserving natural systems.

In addition, this proposal puts Oregon at risk of not qualifying for, or losing, federal resources because Oregon will be in conflict with national policy. The President announced that the policy of the United States is to "**put the United States on a path to achieve net-zero emissions, economy-wide, by no later than 2050."**[3]

2. Failure to Consider the Climate Science Describing the Environmental Disasters to be Avoided by the Plan.

[3] Executive Order to Tackle Climate Change (January 27, 2021).
Sec. 201. Policy. Even as our Nation emerges from profound public health and economic crises borne of a pandemic, we face a climate crisis that threatens our people and communities, public health and economy, and, starkly, our ability to live on planet Earth. Despite the peril that is already evident, there is promise in the solutions — opportunities to create well-paying union jobs to build a modern and sustainable infrastructure, deliver an equitable, clean energy future, and **put the United States on a path to achieve net-zero emissions, economy-wide, by no later than 2050.**
We must listen to science — and act. We must strengthen our clean air and water protections. We must hold polluters accountable for their actions. We must deliver environmental justice in communities all across America. The Federal Government must drive assessment, disclosure, and mitigation of climate pollution and climate-related risks in every sector of our economy, marshaling the creativity, courage, and capital necessary to make our Nation resilient in the face of this threat. Together, we must combat the climate crisis with bold, progressive action that combines the full capacity of the Federal Government with efforts from every corner of our Nation, **every level of government**, and every sector of our economy.
It is the policy of my Administration to organize and deploy the full capacity of its agencies to combat the climate crisis to implement a Government-wide approach that reduces climate pollution in every sector of the economy; increases resilience to the impacts of climate change; protects public health; conserves our lands, waters, and biodiversity; delivers environmental justice; and spurs well-paying union jobs and economic growth, especially through innovation, commercialization, and deployment of clean energy technologies and infrastructure.
Successfully meeting these challenges will require **the Federal Government to pursue such a coordinated approach from planning to implementation, coupled with substantive engagement by stakeholders, including State**, local, and Tribal governments.

The Background Brief for the Greenhouse Gas Emissions Program (Dec 18, 2020) acknowledges that the adverse effects of climate change are occurring in Oregon, and that these effects are expected to worsen in the future:

> Effects of climate change are now evident in Oregon with reduced snowpack, sea level rise, more frequent and intense wildfires, drought and more.
>
> Without major reductions in global greenhouse gas emissions, it is increasingly likely that society will face more severe impacts and potentially irreversible changes. Global reductions in greenhouse gas emissions can slow the speed of future climate change and associated public health, environmental, and economic impacts. Oregonians have to do our part to avoid the most catastrophic effects of climate change.

To avoid "the most catastrophic effects of climate change" the Intergovernmental Panel on Climate Change made clear in their 2018 Report that global warming must be stopped before a warmer atmosphere triggers natural sources of GHG emissions that will drive the climate system to continue warming even if anthropogenic emissions are reduced to zero. Once those "tipping points" are crossed there will be no turning back. Such irreversible climate conditions will cause devastation to natural and human systems that are beyond the capacity of human institutions to reverse.

It is arbitrary and capricious for DEQ to consider only Plan scenarios that fail to achieve zero emissions, and will therefore inevitably contribute to a runaway climate disaster. There is no rational basis for such a decision, and DEQ offers none.

3. Absent Reliance on Climate Science as the Basis for Plan Development, DEQ Offers No Other Criteria As the Rational Basis for Partial Reduction Scenarios.

DEQ offers no rationale for rejecting a zero emission option based on either the equity or economic cost goals of the Plan. No criteria are offered for how equity is to be measured or assessed. The presentation suggests that equity will be evaluated with respect to impacts of the plan on community health, economic consequences for low income and communities of color. But there is no discussion of how these factors will measured, quantified and weighed in Plan development. Impacts of the Plan on employment opportunities created, income levels associated with likely employment opportunities, family energy costs, or the impact on family mobility, transportation costs and access to alternative forms of transportation are not mentioned as relevant criteria.

None of these equity factors are identified as the basis for rejecting a zero emission scenario. In fact, by rejecting a zero emission scenario DEQ omits from the outset achieving significant benefits for community health that will flow from eliminating community exposure to the co-pollutants emitted as by-products of the combustion of carbon fuels. For example, tailpipe emissions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) are the primary cause of urban ozone along with NOx emitted from fossil fuel fired power plants and industrial

operations.[4] Converting vehicles, power plants and industrial operations to zero carbon alternatives will virtually eliminate the smog that impairs the health of urban residents. By not considering a zero emission plan, DEQ forecloses the possibility of providing significant health benefits to the communities most exposed to emissions from power plants, highways and industrial operations. Foreclosing those equity benefits for communities most exposed does not provide a rational basis for excluding a zero emission scenario.

In addition, economic costs are not offered by DEQ as a rational basis for excluding a zero emission scenario from consideration as part of the rulemaking process. It is unreasonable for DEQ to exclude from consideration the well-documented economic benefits to the broader economy of the region and the State of weaning transport from dependence on petroleum fuels. Many economic analyses demonstrate that the fuel cost savings to be achieved by switching from petroleum fuels to electricity will exceed billions of dollars for Oregon. Research shows that retaining those dollars in Oregon's economy will enhance income for low income families by 8 to 10%, and create 16 jobs in the local economy for every job lost in the Oil Patch.

These kinds of dramatic benefits for Oregon families and the economy are removed from consideration by DEQ's pre-emptive decision to regulate fuel suppliers instead of considering policies designed to replace fossil fuel vehicles with zero emission vehicles.

The rejection of a zero emission scenario cannot be, and has not been, justified by a balanced consideration of costs to all economic stakeholders. The pre-emptive rejection of a zero emission option appears to be motivated by exclusive consideration of the costs to be borne by regulated entities, and not by a balanced consideration of the economic costs and benefits that will accrue to all stakeholders. This kind of exclusive consideration of costs by the regulated without weighing the benefits to the public interest of imposing those costs is not a rational basis for rejecting a zero emission scenario. It is, instead, arbitrary and capricious.

B. Exempting Large CO2 Source Categories from Regulation is Not Consistent with Climate Goals, Fairness, Equity, and is Not Reasonable.

At the January RAC meeting, DEQ explained that it does not intend to require electric power generating units (EGUs) that emit GHG emissions from natural gas or biomass to reduce their emissions. In addition, DEQ stated its intention to only reduce CO2 emissions from transportation rather than eliminate CO2 from transport because it will limit its consideration to a program that regulates fuel suppliers. DEQ also proposed to exclude some industrial sources from regulation. No analysis was by presented by DEQ staff to the RAC regarding the significance to the Cap and Reduce program if these sources are omitted from the program, or offer any logical rationale for failing to consider regulations that include a zero emissions option for each of these sources categories.

1. Excluding Electric Power Generators Will Defeat the Program Goals.

[4] ECA explored the public benefits of eliminating air pollution from carbon combustion in comments on program goals submitted to DEQ on October 21, and comments on Plan scenarios on November 13, 2020.

Electrification of energy used in transportation, industrial processes, commercial property and residential structures is the primary strategy likely to be implemented by those sources between now and 2035 to reduce carbon fuel use and CO2 emissions from those source sectors. Shifting the demand for energy from fossil fuels to the grid will significantly increase electric power generation, possibly a near doubling of the power produced from EGUs.[5] If the EGUs generating that power are allowed to continue to use fossil fuels, emissions from those sources will increase with the increase in load.

It appears from data contained in slide #38 presented by DEQ staff at the RAC meeting that current GHG emissions from EGUs represent (.49 x 16.9 CO2e) 8.3 MMT CO2e (2019), or approximately 13% of the statewide inventory reported on slide #32 (estimated 66 MMT CO2e). If power production from in-state EGUs is increased 60% to 75% by 2050, EGU emissions will rise to 14.5 to 13.3 MMT CO2e.[6] At that rate, the share of the 2019 inventory represented by EGU emissions in 2035 will be > 20%.

Emissions of this magnitude will far exceed the level of emissions allowed if the 80% reduction from 1990 levels required by the Governor's EO is to be implemented by 2050. Slide #32 shows the 1990 baseline as approximately 58 MMT CO2e. The Governor's EO directs the DEQ to adopt a plan designed to reduce emissions to "at least" 11.6 CO2e, or less, by 2050, and to 31.9 MMT CO2e by 2035. Obviously exempting EGU emissions is critically important to the effectiveness of the Cap and Reduce program because the exemption implies that even if all other source categories are reduced to zero by 2050, the EGU exemption will cause the 80% reduction goal to be violated.

2. **Leakage is Not a Rational Basis for Exempting EGUs.**

The only rationale offered by DEQ for its failure to consider zero emissions or other reductions in CO2 from EGUs is that imposing those regulatory requirements might induce in-state EGU operators to discontinue operations and instead import power from out-of-state EGUs that burn natural gas or coal. DEQ offered no evidence in support of this rationale for excluding EGUs from regulation other than a general apprehension that requiring in-state EGU operators to reduce emissions would create a strong incentive for power providers in Oregon to obtain electricity from unregulated out-of-state sources. Without evidence, DEQ has no rational basis for this apprehension.

A review of system plans announced by Oregon's two largest EGU operators, PGE and Pacific Power, shows that they do not intend to be operating fossil fuel fired EGUs either in Oregon or

[5] PGE reports that "By 2050, retail electricity sales are projected to increase by 60 to 75 percent relative to today's level. As a result, electricity's share of overall energy demand is projected to increase in a deeply decarbonized future."
at https://assets.ctfassets.net/416ywc1laqmd/2WzCHrdAKz3InBbp0ecdD8/57c8695890d8d3ee4b09f39c2089548b/exploring-pathways-to-deep-decarbonization-PGE-service-territory.pdf.

[6] These values are estimated from the data provided to the RAC because the DEQ did not present any evaluation of the consequences of excluding current or future EGU emissions.

in the Pacific Power/Rocky Mountain Power network.[7] Washington State has closed its last coal plant, and California is on track to zero out GHG emissions from EGUs.

For DEQ to base a decision on its apprehension that requiring reductions at Oregon EGUs will be counterproductive, DEQ must provide evidence showing the sources that could supply the power that would be sold to end users in Oregon if Oregon EGUs are shut down.

3. Failure to Disclose Data and Analysis Relevant to Decision is Unlawful.

To provide the information needed for meaningful comments, ECA submitted to DEQ two days following the January meeting a request for any analysis prepared by or available to DEQ showing what share of the current State greenhouse gas inventory is represented by in-state EGUs, and what share they are expected to represent in 2035 and 2050 after accounting for load growth if they are exempted from emission reduction requirements. Despite the importance of this information for the purpose of determining future GHG emissions from EGUs and the effectiveness of the Cap and Reduce program, DEQ responded to this request stating that they had not undertaken any investigation of load growth that would be expected when transport, home heating and industrial processes switch to electricity as an alternative source of energy.

Given the lack of any such analysis, it would appear that proposing to exempt EGUs as the sole regulatory option is unsupported by consideration of the impact on total emissions, and the consequences for the Cap and Reduce program. As a result DEQ's pre-emptive decision fails to satisfy traditional criteria for reasoned decision-making, and is arbitrary and capricious.

CONCLUSION.

ECA contends that DEQ is violating its statutory obligation to protect the forests and other natural resources of the State from the many threats associated with a warming climate by its failure to propose for consideration at least one zero emissions Plan scenario. For the reasons discussed in this comment, ECA asks that DEQ include a net zero scenario in the development of the Plan for consideration by the Environmental Quality Council.

Respectfully submitted on behalf of

Elders Climate Action, Oregon Chapter

Robert E. Yuhnke, ECA Policy Committee

[7] See PacifiCorp Embraces Massive Renewables Build-Out, Early Coal Retirements | Greentech Media.

From: Gail Cordell <campaigns@good.do>
Sent: Tuesday, January 26, 2021 12:21 PM
To: Governor Kate Brown; Director Whitman
Cc: kristen.sheeran@oregon.gov; colin.mcconnaha@state.or.us; CapandReduce
Subject: Exempting fossil fuels from the OCAP???

Dear Governor Brown,
(cc: Director Whitman)

Please do not exempt any major fossil fuel emitters from the OCAP. If this is your intention, don't bother calling this a Climate Action Plan.

There is enough science to enable us to identify the most productive targets, how to find alternatives and make allowances for PEOPLE who will be most severely impacted.

Companies have had long enough to begin moving away from fossil fuels in an orderly manner and that has not happened in many cases.

The price of our lifestyles should reflect strongly the unpaid costs to our environment and future.

Gail Cordell
No-apologies environmentalist
Oregon City OR

_____

Subject: Inexcusable to exempt fossil gas power plants

Dear Governor Brown,
(cc: Director Whitman)

I'm a proud Oregonian and celebrated the signing of the Oregon Climate Action Plan (EO 20-04) last year as potentially the biggest climate action Oregon has ever taken.

I'm writing today out of a deep concern you are letting some of the state's largest polluters entirely free rein to continue spewing climate pollution, before the Climate Protection Program (frm. cap & reduce) even begins a rule-writing process. There is no role for fossil fuel "natural" gas in a climate-safe future. Fossil gas-burning power plants in Oregon must be fully regulated by the Climate Protection Program, along with every other large polluter in the state.

Fossil gas power plants are the largest stationary sources of climate pollution in Oregon. One out of every 10 tons of climate pollution in Oregon comes from gas-burning power plants. We just finished the important work of closing the last coal-burning power plant here. Ignoring the next generation of polluting power plants in a "climate protection program" is unthinkable!

A second major area of concern for this program, as initial rulemaking gets underway, is the matter of near-term targets for reducing pollution. Oregon must not depend on decades-old science for setting the targets of the Climate Protection Program. So far, DEQ has refused to commit to strong targets for climate pollution reductions, especially an interim target.

We must cut climate pollution in half by 2030 according to the best available science. Our current state targets do not meet that threshold, and thus the Climate Protection Program, focused on the biggest sources of pollution, should be more ambitious than even the overarching state targets.

You are our protector from large polluters. You clearly value science and have a vision for a prosperous, clean energy economy for Oregon, as exemplified by the Oregon Climate Action Plan. This gross exemption cannot be allowed or the ambitions of your executive order will not become reality.

Please instruct the Department of Environmental Quality to include gas-burning power plants and all other large polluters in the Climate Protection Program and set truly ambitious targets to protect the health of Oregonians, move toward a more equitable state for all, and help our economy recover into a sustainable future.

Sent by the following 12 individuals:

Amanda Nicolai
Carmen Ebel
Denise Lytle
Evert Vermeer
James Freeman
Jim Labbe
Kathleen Chapman
Mary Wallace
Matthew Tarpley
Noelle Smith
Sandra Oliver-Poore
Vanessa Jamison

February 3, 2021

Governor Kate Brown
Office of the Governor
900 Court Street NE, Suite 254
Salem, OR 97301-4047

Director Richard Whitman
Department of Environmental Quality
700 NE Multnomah St. Suite 600
Portland, OR 97232

Re: DEQ's Climate Protection Program rulemaking

On behalf of the Oregon Climate Action Plan (OCAP) Steering Committee, representing a broad coalition of environmental justice, labor, business, culturally-specific and climate advocacy organizations from across Oregon, we write to express our concerns regarding the policy proposals outlined at the Department of Environmental Quality (DEQ)'s "Climate Protection Program" January 14, 2021, rulemaking kickoff meeting.

Our organizations and the broader OCAP coalition collectively represent stakeholders and constituents from all four corners of the state, who expect their leaders in government to prioritize public health, racial equity, environmental justice, community resiliency, and their children's futures in decision-making. The OCAP Steering Committee advocates to secure the most equitable and climate-protective policy outcomes from DEQ and other state agency rulemaking processes to support Oregon's greenhouse gas reduction goals.

With these goals in mind, our organizations and coalition members have shown up time and time again--even as some of us were actively being evacuated due to the 2020 wildfire emergencies--to advocate for strong climate protections and equity benefits as part of DEQ's Climate Protection Program. Our policy recommendations have been unwavering throughout every stage in the public engagement process: **DEQ should maximize emissions reductions, equitable outcomes, and local economic benefits by creating a program that is based in the best available science, requires early emissions reductions and doesn't provide exemptions for polluters.**

We have emphasized these priorities through dozens of written comments, as well as active participation and oral testimony at all 13 public meetings that DEQ held as part of the preliminary rulemaking phase for the Climate Protection Program. We were therefore very disappointed to see DEQ present at the formal rulemaking kickoff meeting policy "leanings" that would exempt an entire polluting sector from regulation, and uncertainty as to whether the program will establish an interim goal to ensure near-term emissions reductions. If implemented, these policy decisions would significantly undermine the greenhouse gas reduction potential of the program.

As an agency with a stated mission to be a "leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water," DEQ knows better than most the urgency of the climate crisis and the severity of the costs of inaction. By moving forward with a program that exempts major polluters and fails to establish interim emissions reduction targets that reflect the best available science, DEQ is failing to meet a number of aspects of its mission, not least of which is leadership.

Emissions targets

With less than a decade remaining to cut global greenhouse gas emissions in half and avoid catastrophic and irreversible climate impacts, the urgency of the climate crisis has never been more stark. Likewise, the extreme cost of climate inaction has never been clearer: the devastating and unprecedented September 2020 wildfire events are just the latest example of how climate change is worsening public health crises and costing Oregon taxpayers billions of dollars in health costs alone.[1] The urgency of the crisis makes Oregon's failure to reach even its outdated goals that much more staggering: preliminary 2019 sector-based emissions data exceed the state's 2020 emissions reduction target by 26 percent or 13 million metric tons of carbon dioxide equivalent.[2]

As our organizations have continually underscored through public comment, requiring early emissions reductions, which can be driven by a strong interim target, is not only critical to achieving our state's climate goals, but will also have immediate public health benefits and alleviate burdens for impacted communities, by reducing harmful co-pollutants that disproportionately affect Black, Indigenous and People of Color communities and low-income Oregonians.[3] Further, near-term reductions have the potential to provide significant economic benefits, by encouraging early investment in clean energy and other emissions-reducing technologies that provide immediate benefits for impacted communities.

Moreover, if DEQ truly seeks to design a Climate Protection Program that "achieves greenhouse gas emissions reduction targets without sacrificing equitable outcomes and while limiting costs to consumers," it must establish an interim target that reflects the best available science. Science says we must cut our emissions in half by 2030. DEQ should be presenting scenarios that are consistent with the best available science, not anything less ambitious.

Exemptions

Further, if the Climate Protection Program is to achieve these science-based emissions reductions, it must cover all major polluting industries and sectors within DEQ's regulatory authority. We therefore continue to be extremely concerned to see that DEQ is heavily leaning towards exempting emissions from all electric generation in Oregon--with fossil gas plants being the largest stationary sources and fastest-growing source of climate pollution in Oregon[4]--from regulation under the program.

Exempting in-state electricity generation from regulation under this program means letting major polluters off the hook, plain and simple. DEQ has said that there is a policy explanation for not including in-state electricity generation under the program, out of concern that it would result in leakage--e.g.

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[1] https://www.nrdc.org/experts/vijay-limaye/smoke-oregon-wildfires-cost-billions-health-harms.

[2] Oregon Global Warming Commission 2020 Biennial Report to the Legislature. https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5fe137fac70e3835b6e8f58e/1608595458463/2020-OGWC-Biennial-Report-Legislature.pdf

[3] Oregon Health Authority's recent Climate and Health in Oregon 2020 report underscored that rapidly accelerating climate change is intensifying public health crises in Oregon, hurting communities of color and tribal communities first and worst, and that these health risks will only get worse with continued inaction. https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/CLIMATECHANGE/Documents/2020/Climate%20and%20Health%20in%20Oregon%202020%20-%20Full%20Report.pdf

[4] Based on DEQ Greenhouse Gas Program data, electricity from gas plants is the fastest-growing source of climate pollution of any fuel in Oregon, increasing by almost 60 percent in six years (from 2012 to 2018, latest available data).

energy suppliers shifting their resource utilization (and therefore emissions) out of state. However, as many of our organizations have expressed to DEQ previously, we have not seen evidence that potential emissions leakage concerns outweigh the benefit of capping in-state power sector sources. We would therefore at the very least request that if DEQ plans to exclude this top polluting sector from the program, that the agency show its work with data and analysis to back up this conclusion.

Process integrity

In addition to the repercussions that these policy leanings (if implemented) will have on the integrity of the Climate Protection Program overall, we are concerned about what this says about DEQ's process for considering and integrating public and stakeholder input into program design decisions. The agency has clearly heard these strong preferences from the public, including scientific and legal experts, as indicated in the public record and part of meeting summaries published on DEQ's website. We would therefore request that DEQ leadership provide an explanation of how the agency reached the above policy leanings, and how the agency plans to ensure that the public's views are more adequately represented and integrated into program design considerations moving forward.

DEQ's actions also leave us with a larger concern about implementation of the Governor's Executive Order and our state's action on climate moving forward. If DEQ is not going to adhere to the Executive Order's directives and ensure that the Climate Protection Program at least tracks the emissions reduction targets set out in the Executive Order as a backstop to achieving these goals, what does that mean for implementation of the rest of the Executive Order? Will other agencies also look to lower ambition? With just ten years remaining to avoid irreversible climate catastrophe, we are at an inflection point: backtracking now harms Oregon's climate legacy and threatens a safe climate future for our children.

Thank you for your consideration, and we look forward to continuing to work with you to ensure a healthy future and a stable climate for all Oregonians through the establishment of a strong and just Climate Protection Program.

Sincerely,

Affiliated Tribes of Northwest Indians
Beyond Toxics
Climate Solutions
Community Energy Project
Hacienda CDC
NAACP Eugene-Springfield
Oregon Environmental Council
Oregon League of Conservation Voters
Oregon Public Health Association
Oregon Wild
Our Climate
PCUN
Sustainable NW

DEQ Comments for Cap and Reduce

Date February 20, 2021

By: Diane Hodiak, 350Deschutes, dhodiak@350deschutes.org,

206-498-5887

I commend DEQ for providing an optional reduction goal of 50% by 2035, 90% by 2050. But the latest analysis from Australia suggests that we need to be netzero by 2030. But there are other factors that must be changed to make any of these goals realistic:

Too Many Cap Exemptions are Likely to Hinder Reaching Oregon's GHG Emission Reduction Goals

In the past and present, DEQ has come under fire by the legislature, (justified or not) for its inability to manage and reduce emissions. If DEQ implements a high exemption and minimal to moderate rule scenario, the existence of the entire agency, and/or its charge from the Oregon legislature might be at risk. This is the time for ***bold action,*** to protect Oregonians and the DEQ.
A weak regulatory framework has no place in a Climate Emergency and this should be stated as a rationale, similar to what other jurisdictions are doing.

Two questionable objections are the exemptions to natural gas power plants and the electricity sector. If you cannot do it now, **include the electricity sector** later, but in the near term with alternative provisions. For example, If DEQ is dependent on the PUC or the legislature to regulate utilities, then DEQ must make sure that this happens by stepping up with alternate scenarios should they NOT happen. This could be a convoluted pathway, however. A more simple path to fairness would be to include all power plants under the cap with zero exemptions.

Regulate existing and proposed gas fired power plants. OR If you cannot do this then, at a minimum require regulation of methane from the oil and gas industry. It is currently voluntary under the EPA. If natural gas plants and interstate pipelines in Oregon are exempt, then they should be **required not voluntarily agree to participate in the highly successful EPA Methane Reduction Program.** They should be required to set up goals consistent with overall scoping to begin in one or two years.

https://www.epa.gov/natural-gas-star-program

Thank you for including process emissions in Scoping. May question is for scenario One: does this mean that stationary sources must include natural gas plus process and they will not be regulated if they are just process?

Emission Targets:

- **Strongly consider 2 year rather than 3 year targets**. We need emission reductions sooner rather than later.
- **Require Interim Targets to Ensure Reductions are ON Track;** At least include those specified in Governor Brown's EO. This could help DEQ plan and mitigate in case emissions are not on track. Interim targets are found in other emission reduction programs.

Banking and Alternate Compliance Instruments Could Also Threaten Meeting Proposed Emission Reduction Goals.

Emitters should **not be allowed both alternate compliance AND allowances.** This gives them double counting options and will contribute to far fewer emission reductions, and likely prohibit reaching the reduction goals. Withholding allowances and/or using different compliance instruments would need to work together to ensure that the polluter isnt give a pass to emit more up to the cap.

Another item contributing to far fewer emission reductions is DEQ's proposed percentage allowance for ACI. For the three scenarios, they should be something like 0%, 5%, and 8%, not the greater amounts currently proposed. One must question what damage this might do at the higher levels to interfere with real emission reduction.

Other emission reduction programs show that it is possible to game the system with alternate compliance, banking, and buying offsets when cheap and then selling at a higher price. Thus, this should only be allowed for the first three years. It also indicates why there is a need to manage the market, over time. If the emitter is allowed to frontload banking, there is a need to incent the emitter upfront but then lock in emission reductions. Banked credits can be allowed for 10 years if emitter is willing to give 20%

back to state. Incent the polluter to turn in allowances which encourages emission reductions.

What Counts and Using ACI

- No biomass (see justification below)
- No trash burning
- Agriculture programs should be incentivized
- Longer forest rotations and prohibitions of cutting trees with a diameter of 21inches or more
- Contributions to Land Trusts and Forest Recovery programs with verified Restoration efforts. (connecting forests, not inclusive of thinning)
- These alternative compliance measures must be verified and managed by an independent 3rd party verifier who ensures that the mechanism is viable in the year taken as an ACI.
- ACI should not be allowed for stationary sources near vulnerable or any populated area, within a certain radius.(there is research that shows population vulnerabilities as far away as 200 miles) BACT requirements could help here. Also, OHA has this data, but needs resources to begin to quantify what a reasonable radius might be.

EITE and Leakage

There is history of other programs in Canada and elsewhere, where industry "gamed" the system for exemptions that were unjustified. This may be more true than ever for out of state power supply where Washington and California are becoming more advanced in regulating emission reductions in this sector. As a safeguard, exemptions could be provided as a credit at the end of the reporting period, with the entity "accounting" and justifying that they did pay more for energy in order to verify the exemption. This is done in Massachusetts at year-end for the electric power supply sector.

Consider Options for Regulation of Biomass Burning Facilities

DEQ has stated it will not regulate biogenic emissions, however Oregon's false declaration of biomass as "carbon neutral" and this free pass is contributing harmful emissions to vulnerable populations and the planet. In

addition to carbon dioxide, biomass plants emit mercury, soot, lead, nitrogen oxides and sulfur dioxide, (EPA)

The California ARB Environmental Justice Advisory Committee provided these recommendations for their Scoping Plan:

“No burning biomass or considering it a renewable resource.

The North Carolina Academy of Family Physicians said the “burning of poultry litter and wood wastes creates emissions of particulate matter that research has shown increase the risk of premature death, asthma, chronic bronchitis, and heart disease.” “Burning biomass could lead to significant increases in emissions,” the American Lung Association wrote Congress in 2009, “and have severe impacts on the health of children, older adults, and people with lung diseases.”

In 2017, over half of U.S. wood pellet plants either violated permit pollution limits or failed to install required pollution controls. In the southeastern United States, forestry companies have been increasingly clearcutting forests to supply wood pellets to European power plants. (Food and Water Watch: https://www.foodandwaterwatch.org/insight/fact-sheet-biomass-cannot-be-part-us-renewable-energy-future)

Oregon has 17 woody biomass power facilities, primarily in the wood-products industry. An additional 21 facilities in Oregon use woody biomass to provide space heat; these include schools and hospitals. (ODOE https://www.oregon.gov/energy/energy-oregon/pages/bioenergy.aspx) https://en.wikipedia.org/wiki/List_of_power_stations_in_Oregon

To protect vulnerable populations these plants must be regulated and encouraged to shift to cleaner sources. It seems this rule would allow DEQ to do this: Oregon DEQ 340-200-0020 Air Pollution Procedures and Definitions: Under (B)

A major stationary source of air pollutants, as defined in section 302 of the Act, that directly emits or has the potential to emit 100 tpy or more of any regulated air pollutant, including any major source of fugitive emissions of any such pollutant. The fugitive emissions of a stationary

source are not considered in determining whether it is a major stationary source for the purposes of section 302(j) of the Act, unless the source belongs to one of the following categories of stationary source:

How else can biomass plants be regulated? A Manomet study to rewrite Massachusetts renewable energy criteria for biomass. Under the 2012 rules, a biomass facility was only eligible for subsidies if it used sustainable forest products, reached an efficiency standard of 60% and had fewer net carbon emissions than a gas-fired plant over *20 years. (perhaps make this 40 years,* as most forest biomass projects only become carbon neutral after several decades, sometimes as long as 75 years. A realistic carbon accounting method that includes the "lost carbon" from the carbon sink of forest trees eliminated should be used. This would be true life cycle.

If Agriculture and Forestry are Exempt, Strong Countermeasures Must be Enacted

The IPCC has stated that a **"whole systems" approach is needed** to restrict global warming to 1.5 C degrees. Yet DEQ is omitting Agriculture and Forestry, two substantial emitters.

https://www.ipcc.ch/sr15/chapter/chapter-4/ Forestry is one of Oregon's biggest emitters. Besides the carbon losses, logging equipment contributes significantly, and should be under a cap or incentive program to use cleaner fuels, and cleaner engines.

Forestry owners, and logging companies should be prohibited from cutting trees 21 inches or larger where 60% of the carbon is stored. Oregon only has about 3% of its forests that meet this criteria. *Study: Large Trees Dominate Carbon Storage in Forests East of the Cascade Crest in the United States Pacific Northwest, Eastern Oregon Legacy Lands, 2020*

Instead timber companies could be recruited to participate in restoration of forest lands to ensure connections between parcels, so important for biodiversity and facilitating a carbon sink.

Enacting Countermeasures Will Require Agencies Working Together
Many of these proposed ideas would require agencies working together, pooling resource and obtaining mutual goals, rather than in silos where resources are more limited and implementation restricted.

February 24, 2021

Submitted via email to: GHGCR2021@deq.state.or.us

Oregon DEQ
700 NE Multnomah St., Room 600
Portland, OR 97232-4100

Re: Airlines for America® Comments on the Climate Protection Program -- Rulemaking Advisory Committee Meeting #2 Discussion Questions

Dear Sir/Madam:

Airlines for America® (A4A), the principal trade and service organization of the U.S. airline industry,[1] appreciates the opportunity to comment on the above-referenced Discussion Questions document from the second meeting of the Oregon Department of Environmental Quality's (DEQ) Rulemaking Advisory Committee (RAC) for the under-development Climate Protection Program,[2] which would "set limits on greenhouse gas emissions from significant sources in Oregon, including . . . transportation fuels . . . ."[3]

A4A's brief comments focus on fuel suppliers and emissions, and in particular on DEQ's stated "leaning . . . to regulate emissions from [the] use of non-natural gas fossil fuels at fuel suppliers with regulated emissions above the threshold for inclusion."[4] DEQ further states in this issue brief that "[t]he fuel supplier would be regulated for the fuels they deliver in Oregon and are combusted in various end uses," although DEQ "does not currently have a leaning on determining the threshold for inclusion in the program."

While A4A did not participate in the February 17, 2021, RAC meeting, we have reviewed the accompanying document entitled "Modeling Study on Program Options – Initial Policy Scenario Assumptions."[5] We see that under policy scenarios 2 and 3, "[f]uels used for aviation" would be properly excluded from regulation. However, we see no such exclusion under policy scenario 1. Although this may have been an inadvertent oversight on the part of DEQ or its contractor, we write today to make clear that the same exclusion must also apply under policy scenario 1 (as

[1] A4A's members are: Alaska Airlines, Inc.; American Airlines Group Inc.; Atlas Air, Inc.; Delta Air Lines, Inc.; Federal Express Corporation; Hawaiian Airlines, Inc.; JetBlue Airways Corp.; Southwest Airlines Co.; United Airlines Holdings, Inc.; and United Parcel Service Co. Air Canada, Inc. is an associate member.

[2] Available at https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/ghgcr21AC2discussion.pdf.

[3] *See* https://www.oregon.gov/deq/Regulations/rulemaking/Pages/rghgcr2021.aspx.

[4] DEQ, "Understanding Point of Regulation," at 4 (Feb. 10, 2021), available at https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/ghgcr21rac2pointReg.pdf.

[5] Available at https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/ghgcr21ModelPolScenarios.pdf.

well as any other scenario(s) that DEQ develops), for the very same reason – federal law preempts state and local government regulation of aircraft emissions and the content of and emissions related to jet fuel.[6]

Thank you for your consideration of these brief comments. Please do not hesitate to contact me if you have any questions.

Sincerely yours,

Ira Dassa
Director, Environmental Affairs
idassa@airlines.org

[6] Federal preemption is established both under the federal Clean Air Act (CAA) and federal aviation law. For example, Section 233 of the CAA explicitly preempts states and their political subdivisions from "adopt[ing] or attempt[ing] to enforce any standard respecting emissions of any air pollution from any aircraft or engine thereof unless such standard is identical to a standard" established by the U.S. Environmental Protection Agency. 42 U.S.C. § 7573. Further, courts have long held that the Federal Aviation Act of 1958 creates a "uniform and exclusive system of federal regulation" of aircraft that preempts state and local regulation. *Burbank v. Lockheed Air Terminal, Inc.*, 411 U.S. 624, 639 (1973); see also *American Airlines v. Department of Transp.*, 202 F.3d 788, 801 (5th Cir. 2000) (aviation regulation is an area where "[f]ederal control is intensive and exclusive") (quoting *Northwest Airlines, Inc. v. Minnesota*, 322 U.S. 292, 303 (1944)). This pervasive federal regulatory scheme extends not only to aircraft in flight, but also to aircraft-related operations on the ground. In addition, the Airline Deregulation Act precludes states from "enact[ing] or enforc[ing] a law, regulation, or other provision having the force and effect of law related to a price, route or service." 49 U.S.C. § 41713(b)(1).

MEMORANDUM

To: Richard Whitman, Director, Oregon Department of Environmental Quality

From: Alliance of Western Energy Consumers

Edward Finklea, Natural Gas Director

Date: February 26, 2021

Re: Feedback on Oregon Climate Protection Rulemaking Advisory Committee Meeting 2

Thank you for the opportunity to provide written feedback to the questions posed by the Oregon Department of Environmental Quality ("DEQ") at the second meeting of the Oregon Climate Protection Program: Rulemaking Advisory Committee. The Alliance of Western Energy Consumers (AWEC) is a non-profit association of more than 40 businesses that consume electricity and natural gas in the states of Oregon, Washington and Idaho. As we noted in our January 21, 2021 comments, AWEC brings to this proceeding the concerns of natural gas consumers, especially Energy Intensive, Trade Exposed Entities (EITEs), for whom most have no alternative to using natural gas in their manufacturing processes and still make products in Oregon that can be sold into competitive markets.

From AWEC's prospective, a threshold question that must be addressed is how the agency intends to handle the compliance pathway for EITEs. EITE businesses in Oregon are numerous and diverse. What energy intensive businesses share in common is that they use a significant amount of natural gas in an industrial process. Many also have process emissions unrelated to their natural gas usage. If the result of the cap and reduce program is to make those energy intensive businesses uncompetitive, Oregon risks losing those businesses, and the emissions associated with the manufacturing of those products will go out of state. There is a great risk of increasing global emissions of greenhouse gases if Oregon's energy intensive businesses halt local operations due to higher natural gas costs here than elsewhere in the country.

The primary reason leakage is such a risk if Oregon acts alone in raising the cost or restricting the use of natural gas is due to our region's legacy hydro system. The total energy supply, including electricity, has a low carbon content compared to most other places in the United States and the world due to our relatively low carbon, hydro-heavy, electric grid. There is a real risk of losing manufacturing to more carbon intensive places and greenhouse gas emissions going up rather than down as a result of the Oregon cap and reduce effort if no accommodation is made for energy intensive businesses.

Whether the point of regulation is at the stationary source for large volume emitters or at the gas utility level, the risk of leakage due to the impact of the regulations on Energy Intensive, Trade Exposed (EITE) businesses is the same. Putting the point of regulation with the local distribution company (LDC) does not avoid the leakage risk or the need for EITEs to have a

separate pathway toward compliance. LDCs will pass through to their consumers the price of compliance with an Oregon cap and reduce program. The cost of natural gas is a pass-through item for Oregon's natural gas LDCs. The cost of carbon compliance will be the same, and compliance costs will be passed through to natural gas consumers. Compliance costs will rise for all natural gas consumers, including stationary sources that are EITEs, as the trajectory declines. Thus, EITEs will need a distinct compliance pathway, whether they are directly regulated or if the point of regulation is the LDC, or else the program will create leakage. Regardless of the point of regulation, energy intensive entities need an alternate compliance pathway.

AWEC urges DEQ to set forth a pathway to compliance for energy intensive businesses that use natural gas as well as those with process emissions that is distinct from the general regulation of natural gas usage and the resulting carbon dioxide emissions. The pathway for EITEs will have to be less rigorous than the general pathway, or the program risks creating significant leakage of emissions to other states or parts of the world. AWEC urges the agency to start that discussion in earnest with the Rules Advisory Committee.

Thank you for the opportunity to provide DEQ with feedback during the public process. AWEC looks forward to providing additional input into this important process.

bp

Tom Wolf
Senior Government Affairs Manager
US West Coast

bp America Inc.
Cherry Point Refinery
4519 Grandview Road
Blaine, WA 98230

February 26, 2021

Department of Environment Quality
VIA Email Transmission
GHGCR2021@DEQ.STATE.OR.US

Dear Department of Environmental Quality Staff:

Climate Protection Program: Rulemaking Advisory Committee (RAC) Meeting #2

On behalf of bp America (bp), thank you for the opportunity to participate in the Department of Environmental Quality's (DEQ) RAC meeting on February 17th.

As a natural gas marketer to Oregon, bp supports DEQ's leaning for natural gas Point of Regulation to sit with natural gas utilities or large stationary sources.

With respect to non-natural gas fuel suppliers, DEQ indicated that it is still determining the minimum threshold for being considered a regulated entity. bp reiterates its support for a minimum threshold of 5,000 metric tons (MT) CO2e for non-natural gas fuel suppliers.

For more information, both issues are addressed in our August 26, 2020 letter that was sent following Technical Workshop #1 (copy attached).

Please do not hesitate to reach out to me at thomas.wolf@bp.com or 360-483-7438 if you have any questions or need additional context.

Sincerely,

Tom Wolf
bp America

bp

Pam Brady
Director
Government and Public
Affairs

BP America Inc.
4519 Grandview RD
Blaine, WA 98230

August 26, 2020

Department of Environmental Quality
VIA Email Transmission
CapandReduce@deq.state.or.us

Dear Department of Environmental Quality Staff:

Technical Workshop 1 – Program Scope

On behalf of bp America (bp), thank you for the opportunity to participate in Department of Environmental Quality's (DEQ) recent Technical Workshop 1: Program Scope. bp is an integrated energy company with a goal of being net zero across our entire operations by 2050 or sooner. We support efforts to reduce greenhouse gas (GHG) emissions and offer the following comments based on our experience with similar programs elsewhere, and as a natural gas marketer and fuels supplier in Oregon.

Considerations for the Fuels Supplier Sector

With respect to fuels and thresholds, bp believes that the 5,000 ~~million~~ metric[1] tons (MT) CO_2e threshold should be adopted as it equates reasonably closely to the minimum threshold expressed in gallons within the Oregon Clean Fuels Program. DEQ's issue brief rightly highlights that impacts on the competitive landscape should be a consideration. Applying a threshold higher than 5,000 MT CO_2e could not only distort competition, but also could lead to GHG leakage. While California applies a 25,000 MT CO2e threshold for fuels under its Cap and Trade program, its market for gasoline and diesel is almost ten times the size of Oregon's market.

When taking into account fuels and compliance, bp recommends that as many fuel uses as are practicable be included under the cap and that DEQ avoid applying end use exemptions in the manner adopted under the Clean Fuels Program. For such exemptions to work, there needs to be a clear line of sight from point of regulation to end use, and when this is not possible, the default should be for the fuel to be included under the cap.

[1] Corrected 2/26/21

Considerations for the Natural Gas Sector

bp supports designating the point of regulation for covered entities as close as is administratively feasible to the point of combustion, thus providing transparency to emitters and helping them make economic choices to reduce GHG emissions. For liquid fuels, it is feasible to designate the point of regulation at the fuel distribution rack. For natural gas customers, the only practical way for this regulation to work is to have the point of regulation at the gas meter where either natural gas customers or their immediate agents (such as regulated gas utilities) hold the reporting and carbon obligations. In situations where a natural gas marketer sells natural gas directly to a large industrial customer, the bilateral contract between the marketer and the industrial customer should be the basis for determining the quality (or non-renewable carbon content) of the natural gas sold. The natural gas utility should be responsible for providing the meter reads. Buyers and sellers have used these bilateral contracts to verify the carbon content of energy consumed for many years in California, and the same system could be adopted in Oregon. For example, bp Energy Company provides the California Air Resources Board with redacted contracts to help verify the carbon obligations associated with power delivered into the California Independent System Operator.

Relying on upstream transactions would create data that would be inaccurate and burdensome for the state and market participants to administer. This problem arises because gas may change hands multiple times, be stored over a long period of time, or be exported from and not consumed in Oregon. Further, designating the point of regulation at the meter is the only feasible way for DEQ to account for cost rebates to vulnerable populations if the agency so chooses.

bp would welcome the opportunity to participate in a dedicated breakout session with DEQ to help clarify some of the complexities associated with natural gas transactions.

We appreciate the opportunity to share these comments and look forward to working with you in order to achieve meaningful reductions in GHG emissions. If you have any questions or would more information, please contact me at pamela.brady@bp.com or 360-920-1171.

Sincerely,

Pam Brady
bp America

Submitted electronically via email:
GHGCR2021@deq.state.or.us;

Nicole Singh, Senior Climate Policy Advisor
Singh.Nicole@deq.state.or.us
Department of Environmental Quality
Office of Greenhouse Gas Programs
700 NE Multnomah St.
Portland, OR 97232

Dear Ms. Singh,

Thank you again for the opportunity to represent the perspective of Cascade Natural Gas and Avista (Rural Service Providers) through my position on the Department of Environmental Quality's (DEQ) Regulatory Advisory Committee (RAC). We appreciated the conversations that took place during the DEQ's February 17th meeting and the DEQ's engagement and thoughtful consideration of prior comments, evidenced by the requests for data, and the consideration of the nuances of SB 98 requirements as part of ICF's baseline scenario modeling. We believe RAC-2 continued to drive the conversation about how to best deliver a well-designed cap and reduce program for the benefit of our communities.

It's important to note that our utilities maintain concerns regarding the disproportionate focus on natural gas emissions during the proceedings to date, which represent only 7.5% of total greenhouse gas (GHG) emissions in Oregon based on DEQ's reference case analysis[1]. As discussions proceed, care must be taken to avoid migration from regulated emissions (such as those from the natural gas sector) to unregulated fuel sources (such as the electric sector) as a substitute for meaningful carbon reductions.

In preparation for RAC-3, the Rural Service Providers reiterate our request to review the details behind the analysis performed by ICF via a dedicated breakout session provided to RAC members and the public. We look forward to further opportunities to develop a shared understanding of the program's emerging framework and mechanics. We would also like to see further discussions on protections for low-income customers, such as allowances set proportionate to the number of economically vulnerable customers served by a utility.

Those caveats said, we appreciate the opportunity to have our voices heard in this proceeding, and we look forward to continued engagement in the areas outlined in our comments.

[1]Represents 2018 emissions for the natural gas sector, excluding transport customers, per slide 63 of the presentation provided during RAC-2.
https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/ghgcr2021rac2slides.pdf

Executive Summary

Natural gas LDCs play, and should continue to play, an important role in supplying Oregonians with clean, reliable, and affordable energy. Today, our utilities operate extensive infrastructure to deliver gaseous fuels to end users; in the future this infrastructure should be leveraged to deliver a blend of low-carbon fuels such as renewable natural gas and hydrogen. Our infrastructure also serves an essential role in addressing reliability challenges associated with intermittent renewable resources and the resilience of the overall energy system, such as those encountered through increasingly extreme weather events.

To this end, we have broken our comments into four key themes that address **flexibility and feasibility**, **domain responsibility** (ability to influence GHG reductions), and **transparency and accuracy** in modeling, with respect to program structure and the rulemaking process.

Flexibility & Feasibility

Natural gas consumption varies with economic and weather cycles, and emissions-reducing projects may require years of planning and development. A cap-and-reduce program that provides flexibility would allow regulated entities to pursue emissions reductions in a cost-effective manner.

1. The program should allow a high percentage of alternative compliance instruments that deliver meaningful carbon reductions.

2. Compliance periods need to be long enough to address short-term variations in weather, markets, and other factors that impact natural gas usage.

3. Program targets need to be achievable through commercially available programs and technologies while containing costs for all ratepayers.

Domain Responsibility

Different entities can influence GHG emissions at different points in the natural gas supply chain. To ensure that GHG reduction targets are achievable, regulated entities should be empowered and capable of exerting influence over emissions outcomes.

1. Utilities must be given all available tools to influence emissions for which they are responsible.

2. The program design should consider the existing regulatory framework under which Oregon's natural gas utilities, including energy efficiency, are operated.

3. DEQ should provide clarity on how emissions reductions for natural gas suppliers will be funded.

Transparency & Accuracy in Modeling

To properly evaluate program design options, all modeling activities should be informed by data that is relevant and accurate.

1. The costs and benefits of all fuel sources and technologies should be taken into consideration in modeling.

2. Key modeling inputs, including impacts, benefits, and costs associated with regulated emissions should be vetted transparently as part of RAC proceedings.

3. Baseline assumptions should account for annual variations due to weather, COVID, economy, etc.

4. NG utilities are willing to continue providing details on RNG, hydrogen, and EE capacity as well as usage data for core and transport customers to help inform assumptions regarding ramp up and program design.

5. ICF reference case EE modeling should consider achievable/economic potential identified in a utility's IRP, not the total technical potential for EE.

6. Scenario analysis should be designed with intentional contrasts and controls based on meaningful differences to answer a range of questions associated with distinct design options.

7. Modeling should show how costs impact the entities being regulated, including economic/energy burden on middle- and low-income households.

Comment Details

As stated in our Executive Summary, the Rural Service Providers have identified several core themes with respect to program structure and the rulemaking process.

Flexibility and Feasibility

Oregon's Rural Service Providers recognize the importance of achieving GHG reductions while maintaining energy affordability and reliability in our communities. A successful cap and reduce program will provide regulated entities with the tools necessary to meet program targets transparently and economically.

During RAC discussions, some stakeholders expressed concerns regarding flexibility in the design of compliance mechanisms. When discussing the concept of flexibility during RAC proceedings, it's important to ensure a shared understanding of the terminology, and the role it plays in ensuring meaningful GHG reductions.

Flexibility is not an evasion of responsibility, but rather a way to deliver on the expectations of the rule in the most cost-effective manner possible. As stated in our previous comments, successful delivery of cost-effective GHG reductions for our customers in compliance with the program will require a robust suite of options including trading, banking, and viable alternative compliance instruments.

Particularly in early years, Rural Service Providers will be ramping up our efforts to identify, design, and procure the resources necessary to support GHG reductions in our sector. As regulated utilities, we have an obligation to serve, providing our product based on our customers' needs. GHG reductions will be achieved through a combination of cost signals (incentives to customers and increases in gas costs driven by the program), low carbon gas supply options, and other pathways and innovations as allowed by regulation and law.

Due to certain barriers which will be discussed under "Domain Responsibility," it's unclear yet as to the full potential for utility-driven efficiency-based reductions. Biogas and hydrogen will have important roles to play in a low carbon future, but again, it will take time to bring these resources on-board. To maintain stable rates and ensure energy burden is managed for economically vulnerable customers, an all-of-the-above approach to GHG reductions will be essential.

As stated in our Executive Summary, we believe the cap and reduce program should allow a high percentage of alternative compliance instruments with meaningful impacts on carbon reduction such as carbon sequestration. Alternative compliance instruments should not be limited to specific implementation options, rather, a list of approved independent carbon offset registries should be selected to provide verified compliance instruments. This could include the American Carbon Registry which certifies a wide variety of offset projects including mine methane capture, wetland restoration, carbon capture and storage, agriculture methane recovery, and many others.[2] We believe DEQ could adopt existing registry protocols and provide a way to incentivize offset projects in Oregon, driving benefits toward communities in Oregon from these alternative compliance options. To ensure successful achievement of GHG reduction goals, we encourage the DEQ to allow at least 25% alternative compliance instruments as part of this program.

Conversely, we *do not* perceive electrification as an economic or sustainable pathway for achieving GHG reductions under this cap and reduce program. Electrification has been the sole alternative compliance mechanism listed during RAC discussions to-date. However, this pathway is likely to be costly and unsustainable and would, threatening resiliency and strain the electric grid if natural gas end uses (such as space and water heating, and core commercial uses) were converted to electric load. In addition, there is a potential risk of *increases* to GHG emissions if customer energy use was switched from a regulated source under the program to electricity which DEQ has stated will be *unregulated* under this cap and reduce mechanism.

Regardless of the mechanisms utilized, we maintain that cap and reduce targets should be designed to be achievable through currently available programs and technologies. That means having a mechanism that strikes an appropriate balance between driving innovation and setting realistic goals based on achievable outcomes. Ramp rates should be paced in a way that allows

[2] https://americancarbonregistry.org/how-it-works/what-we-do

entities to realistically achieve compliance, while adjusting as carbon reduction technologies evolve, and regulated entities become more sophisticated in their ability to achieve compliance. Regulatory pathways to compliance will need to be developed through workshops with the OPUC for regulated entities to be able to deliver on the State's critical goals.

In addition, compliance periods should be long enough to address short-term variations in weather, markets, and other factors that impact natural gas usage. We recommend a five-year period. If a five-year compliance period is determined to be infeasible, we recommended a minimum three-year compliance period, which is consistent with cap-and-trade programs in California[3] and the Regional Greenhouse Gas Initiative (RGGI).[4]

Finally, the Rural Service Providers strongly disagree with the suggestion made by a stakeholder during the breakout session of RAC-2 that compliance tools (such as those listed above) solely benefit regulated entities and should be paid for with higher targets. This perspective may be based on a misunderstanding that having a full suite of compliance mechanisms provides benefits to regulated entities above and beyond the ability to fully meet carbon reductions targets at minimum costs to the communities we serve. This is not the case. Each proposed compliance mechanism serves a unique purpose and works in conjunction with the full suite of mechanisms to ensure meaningful carbon reductions can be achieved. Before any compliance mechanism is taken off the table, we recommend working through specific concerns with a sub-group of interested RAC members. During this discussion, members could develop agreed-upon parameters which are reasonable to ensuring accountability and meeting program targets while managing energy burden for ratepayers.

We're also concerned with aspects of modeling Scenario 3 that only allows greater offsets when paired with a steeper cap. Allowing a greater number of offsets for compliance in proposed Scenario 3 provides for a more cost-effective approach. However, DEQ combines more offsets with a steeper cap and the modeling results from this combination may not be much different from Scenario 2. Adding another scenario using the same assumptions presented in Scenario 1 and increasing alternative compliance options allowed to "up to 25% per year" would present the relative cost difference of the program given further flexibility and still achieve emissions reductions, including offset emissions reductions that would not have occurred but for the program being implemented

We encourage the DEQ to facilitate conversations as part of the RAC proceedings to determine how alternative compliance mechanism can help support resilience and alleviate energy burden for traditionally underserved communities.

Domain Responsibility

We believe that to be well designed, a cap and reduce program needs to be built from a clear understanding of the resources available to regulated entities to reduce GHG emissions. To deliver on the program goals, the Rural Service Providers will be leveraging all available options to achieve GHG emissions reductions. Such options include the acquisition of resources (such as energy efficiency reductions) which are not directly under the control of the utility.

[3] https://www.c2es.org/content/california-cap-and-trade/
[4] https://www.rggi.org/allowance-tracking/offsets

Currently, all public purpose funded energy efficiency programs (except for Low Income Weatherization) are independently operated by the Energy Trust of Oregon under the oversight of the OPUC.

As mentioned in our RAC-1 comments, natural gas customers are eligible to receive rebates through the Energy Trust for a suite of measures determined to be cost effective under the methodology allowed by the OPUC. While certain carbon cost and social adders can, and have, been built into avoided costs, the programs operated under the Energy Trust were not specifically designed for the purposes of GHG reductions.

If GHG reductions are to be achieved through energy efficiency (one of the primary tools traditionally available to utilities to influence customer energy usage and lower energy burden), new programs will need to be developed. Such programs would need to be built around the goals of the cap and reduce program. Program design and cost-effectiveness would likewise need to be centered on GHG reductions and their associated benefits. Such design would not need to be limited to existing models such as the Energy Trust, but it could also be supported with direct utility-operated efforts. This is consistent with our position that regulated entities should be empowered and capable of exerting influence over emissions outcomes.

What efficiency-based GHG reduction programs would look like, and how they would be operated, would depend on multiple factors, including regulatory approval, how programs are to be funded, the valuation methodology utilized to identify viable GHG reduction measures, and the total available GHG reductions identified as achievable through third party analysis.

As of today, public purpose funded energy efficiency as a compliance pathway will be heavily shaped by the capacities and limitations of the Energy Trust of Oregon. To that end, the Rural Providers encourage DEQ to host a RAC information session with the Energy Trust and ICF to understand how existing program structure and parameters would influence GHG emissions for the purposes of mechanism modeling and design.

The Rural Service Providers also seek guidance on how emissions reductions will be funded under the cap and reduce mechanism. It will be particularly important to understand how funding is envisioned for compliance mechanisms and responsibilities that do not currently have a funding vehicle in place. For example, SB 98 provides clear guidance on regulatory recovery of renewable natural gas programs operated by small and large gas utilities. However, there are no similar guidelines in place for many of the other compliance tools utilities would need to utilize to reduce their GHG emissions.

For example, in this rulemaking, the DEQ will recommend a point of regulation for the cap-and-reduce program. The point of regulation affects the scope of emissions for which natural gas LDCs will be responsible.

We maintain that it is most appropriate to regulate natural gas transport customers at the point of combustion. As articulated by NWGA during RAC-2, the LDCs are simply the highway through which gas molecules are delivered. We do not have a direct relationship with these customers, nor do they participate in, the efficiency programs operated through the Energy Trust. No public purpose monies are collected for the delivery of energy efficiency programs on their behalf. Any energy conservation efforts performed by our transport customers are entirely independent.

If natural gas utilities are the point of regulation for all of the fuel that they deliver, then we will bear responsibility for emissions from all customers including our industrial transport customers' gas combustion. This means we'll need to ramp up programs for carbon reduction and determine how such programs would be financed. However, it is unclear at this point if additional non-transport related charges to such customers would be in conflict with FERC requirements for market access.

If instead, large stationary sources are a point a regulation separate from the gas utilities, as in the first scenario proposed by the DEQ, these entities would participate in the market for compliance instrument trading. This may allow more cost-effective emissions reduction since an expanded market of participants may identify lower-cost approaches to decarbonization and therefore operate more efficiently. This concept is illustrated in the tables provided in Slides 41 and 42 of RAC-1 presentation where the count of large stationary sources increases from 10 to 34 if the threshold for regulation is based on process emissions only or process and natural gas emissions, respectively.[5]

Transparency & Accuracy in Modeling

The Rural Service Providers appreciate the depth of analysis being conducted by DEQ and ICF within the relatively brief timeframe that's been allotted to this process. We understand that due to the number of items that need to be covered, and the limited time for each meeting, certain items may not receive as much in-depth treatment we might desire.

However, during the RAC-2 meeting, only an hour and fifteen minutes was dedicated to updates on modeling, including review of reference case results. A half hour was scheduled for review of the three modeling policy scenarios out of nearly 8 hours of meeting time. Given the need for transparent and accurate modeling, and requests from multiple RAC members for additional breakout sessions dedicated to this process, we again request that DEQ schedule a breakout meeting with ICF for all interested RAC members to walk through the ICF model and assumptions. This review will ensure all parties are able to provide meaningful feedback on this process and that ICF's findings are informed by the most relevant and accurate data.

Key modeling inputs should be vetted transparently as part of RAC proceedings. These include the impacts, benefits, and costs associated with regulated emissions. In support of this effort, our utilities look forward to providing additional detail on RNG, hydrogen, and energy efficiency capacity as well as usage data for core and transport customers to help inform assumptions regarding ramp-up and program design.

Scenario analysis should be designed with intentional contrasts and controls based on meaningful differences to answer a range of questions associated with distinct design options. When several variables are changed from one scenario to the next, it's difficult to isolate the impact of an individual policy change. For example, modeling three different alternative compliance mechanisms paired with a shift in cap in each one (with the third jumping to 90%) may cloud the impacts of these individual factors on program outcomes.

The Rural Service Providers are also interested in understanding the inputs and process that will

[5] RAC-1 Presentation Slides

be utilized to model non-energy and health benefits associated with GHG reductions. Modeling should show how costs impact the entities being regulated, including economic/energy burden on middle- and low-income households.

We encourage DEQ/ICF to take a fuel and technology neutral approach that transparently lists the costs and benefits of all compliance pathways. This approach is consistent with The National Home Performance Council's Resource Cost Framework which itemizes all costs and benefits when assessing the value of utility operated efficiency efforts.[6]

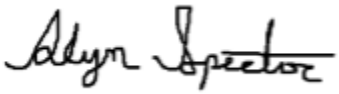
Lastly, DEQ mentioned in the Key Takeaways for the Reference Case modeling that residential and commercial fugitive methane emissions were increasing. Even though natural gas utilities have expanded their systems over time, we have observed decreases in fugitive emissions. Our companies have completed operational and infrastructure changes to comply with federal requirements that lower methane emissions and that continues. A significant area of focus has been replacing older pipelines with pipelines made of newer materials, such as those made with polyethylene and steel. Our utility companies have no unprotected steel pipeline and no leak-prone cast iron pipe in their systems. For consideration, Cascade has been required to report GHG emissions from its natural gas system operation to EPA for its Washington operations in the past, but has not met the threshold to report emissions of its Oregon operations. Utilities will be reporting GHG emission from Oregon operations for the first time this year as OR DEQ includes a lower threshold for reporting per OAR 350-215.

Conclusion

Cascade Natural Gas and Avista appreciate the opportunity to participate as members of the RAC. We look forward to continuing to engage in this process to help support the achievement of meaningful carbon reductions for natural gas customers with the greatest benefit lowest cost for our communities.

We thank you for the opportunity to participate in this process to ensure the best possible outcome for our environment, economy, and equity for all Oregonians.

Respectfully Submitted,



Alyn Spector
Energy Efficiency Policy Manager
Representing Cascade and Avista as
Oregon's Rural Service Providers

[6] http://www.homeperformance.org/sites/default/files/nhpc_nesp-recommendations_20140816.pdf

From: Peter Brandom <Peter.Brandom@hillsboro-oregon.gov>
Sent: Thursday, February 25, 2021 4:25 PM
To: GHGCR2021
Cc: Peter Brandom; Andy Smith; Michael Van Dyke
Subject: Comments in Follow Up to RAC Meeting #2

Good Afternoon,

Please consider the following comments and questions.

- We would like for DEQ to consider interplay between market conditions and impacts to sectors that will be regulated. For example, challenges in delivering supply of components to technology needed that will reduce emissions may be produced by regulated entities. There may be a need to account for constraints so technology supply chains are healthy
- We are interested in understanding those entities who would be effected under the scenarios. Will this information be shared in the near term?
- Will DEQ consider rules that somehow reward, beyond or separate from banking or trading of instruments, entities that exceed their reduction targets?
- When will details of the alternative compliance instrument pathway be determined (beyond allowable %) (i.e., qualified project types, verification of emissions reduced, mechanics of allocations, equity considerations, etc)

Regards,
Peter

Peter Brandom (he/him/his) |*Senior Project Manager*
City of Hillsboro, Oregon
phone 503-681-6191
mobile 503-680-3508
email peter.brandom@hillsboro-oregon.gov
web www.hillsboro-oregon.gov|Twitter @cityofhillsboro

February 26, 2021

Office of Greenhouse Gas Programs
Department of Environmental Quality
700 NE Multnomah St.
Suite 600
Portland, OR 97232

RE: Climate Protection Program - RAC Meeting #2

DEQ's Office of Greenhouse Gas Programs,

Thank you for the opportunity to provide comments after the second Climate Protection Program Rulemaking Advisory Committee meeting. We were very pleased to see that DEQ will now be modeling a scenario that goes above and beyond the state goals outlined in the Governor's Executive Order 20-04. But, we continue to be disappointed that DEQ is not committing to a cap that tracks at least the state goals in the Executive Order, is continuing to plan to exempt electricity emissions from the program, and is considering other exemptions. We also have some thoughts on DEQ's leanings regarding compliance flexibility and point of regulation. Our specific comments are detailed further below.

Capping Emissions According to the Best Available Science

We were very pleased to see DEQ include an updated modeling scenario with targets that go above and beyond the state goals in the Executive Order, but we continue to be concerned that DEQ is not committing that the program will track those goals, or at a minimum, the goals in the Executive Order.

Including the targets of 50% below 1990 levels by 2035 and 90% below 1990 levels by 2050 in a scenario was a step in the right direction. As we have commented previously, DEQ should be designing a program consistent with the best available science. These targets would get us closer to that. And, working towards these more ambitious targets will deliver additional health benefits by reducing air pollution and helping avoid the worst impacts of climate change.

At the same time, no indication or commitment was offered that these would be the targets that the program tracks. Or, for that matter, that the program would at least track the targets in the Executive Order. DEQ is choosing to continue modeling a scenario that only includes the long-term 2050 target, and not also at least the 2035 target in the Executive Order. As we've said in prior comments, achieving ambitious emissions reduction over the next decade is particularly important and what science demands. In addition, Director Whitman in his remarks doubled-down on the idea that it is possible the program will not at least track the targets in the Executive Order. Given the science, the Executive Order, and DEQ's mission, it's hard to fathom why DEQ's position isn't making the most ambitious emission reductions the baseline assumption.

We again urge DEQ to commit to a program that reflects the best available science. Committing to the targets presented in Scenario 3 would go a long way.

Electricity Emissions Exemption

While we appreciate the Director's statements at the meeting in support of 100% clean electricity and acknowledgement of the importance of addressing electricity emissions, we continue to be disappointed that DEQ is marching down the path of a blanket exemption on electricity emissions for the Climate Protection Program (CPP).

While we do hope the Legislature acts on an ambitious 100% clean energy bill this session and have been actively working on it, there is no guarantee. And there is no guarantee what the legislation will ultimately look like were it to pass, including what the timeline for achieving 100% will be, and who will or will not be subject to the requirements. It is entirely possible that independent power producers or power that is exported will not be covered by the legislation. At this point, it's anyone's guess whether legislation will pass or not, and how strong it will be. What we do know for certain is that DEQ has the authority to regulate at least a significant portion of electricity emissions and could do so through the CPP.

We will not re-tread all of the data and arguments we have already provided in the past (and well before a 100% bill was being considered in the Legislature) on why DEQ should cover electricity emissions in the CPP, but will offer one more thought here: **The CPP is supposed to serve as a backstop to ensure emissions reductions happen on the pace and scale to at least meet our state goals**. There are some other policies that are aimed at reducing emissions among the sectors that would be regulated under the CPP, yet CPP is the program that can provide the assurance that necessary emissions reductions will happen. For example, Oregon's Clean Fuels program incentivizes the use of cleaner fuels, but it doesn't ensure that the transportation sector reduces its emissions to the levels needed to achieve our state goals. The CPP can. And, it can similarly serve that role for electricity emissions.

Throughout the public process (including our comments after RAC meeting #1), a number of ideas have been offered about how DEQ could even regulate just a portion of electricity emissions if it decided it didn't want to exercise its full authority. For example, DEQ could choose to regulate just new power plants at the very least. If DEQ were willing to go further, it could add regulation of independent power producers (many of which export power) - which are not as regulated as investor-owned utilities and are not guaranteed to be covered under potential 100% legislation. The leakage argument that DEQ has relied on for the blanket exemption particularly doesn't stand for these two portions. In addition, the CPP could also serve as a backstop for exported power as there are no regulations or limits in Oregon law to reign in pollution from exported power and emissions could actually increase. Yet, DEQ has not shown a willingness to consider any of these options.

Ideally DEQ would take the proactive approach of designing a program that at the very least can serve as a backstop to the emissions from the portions outlined above. If DEQ will not pursue regulations of these or additional portions of electricity at the outset, DEQ could at the very least include a contingency plan as part of the rulemaking. For example, **DEQ could agree to revisit electricity emissions coverage after the end of the legislative session**. If a 100% clean bill passes, DEQ could assess the bill for gaps and/or needs that the CPP could fill. If 100% clean legislation doesn't pass, DEQ could propose a process to discuss incorporating electricity emissions into the program either immediately or within a reasonable amount of time. Modeling at least one scenario with electricity emissions covered now would set this analysis and timeline up for success. Yet, despite all the options available to DEQ, DEQ continues to march down the path of a blanket exemption and restrict further analysis of the issue.

We continue to urge DEQ to change course in full or in part on this exemption. Regardless, there certainly should not be any further exemptions for other sectors/entities as exemptions threaten the environmental integrity of the program.

Before turning to the other exemptions, it is important to note that during the RAC meeting, including the electricity sector was brought up as potentially providing an opportunity to allow other sectors to hide behind emissions reductions from the electricity sector. DEQ has the tools at its disposal to avoid an outcome like this. For example, DEQ could include sector specific caps and/or adjust compliance instrument allocation to accurately account for expected emissions reductions from the electricity sector. As a result, this issue does not justify exempting electricity emissions.

Other Exemptions

It continues to concern us that DEQ is modeling multiple exemptions in the policy scenarios. In addition to exempting electricity generation (as discussed above) in all of the scenarios, DEQ continues to plan to model exemptions for industry process emissions and for fuel suppliers (i.e. oil companies). While there was some progress from the original scenarios presented in terms of narrowing the process emissions exemption and now only modeling one scenario with the fuel supplier exemption (that would exempt 14% of oil company emissions and about 80 entities), DEQ is continuing to keep these exemptions on the table. Exempting entities and meaningful swaths of emissions is not the way to design a "Climate Protection" Program.

Compliance Flexibility

Ultimately, DEQ needs to design a program that focuses on maximizing emissions reductions and centers equity. Too many times, the conversation on compliance flexibility only focuses on what works best for industry. As a result, we encourage DEQ to remember the multiple goals of the program as it considers compliance flexibility options. DEQ might be able to more directly achieve these multiple goals by putting certain conditions on the use of these compliance flexibility mechanisms - e.g. requiring onsite emissions reductions first, requiring an emissions reductions plan to access certain compliance flexibility mechanisms, etc.

Regarding each of the specific mechanisms:

- *Alternative compliance*: If DEQ chooses to utilize alternative compliance options, we would strongly urge the agency to ensure that the program: requires onsite emissions reductions first; incorporates air quality impacts and considerations; and requires that investments happen in and directly benefit Oregon communities, prioritizing investments in frontline/impacted communities. Furthermore, if DEQ plans to utilize alternative compliance options, it needs to demonstrate how it will ensure the cap will still be met in the near term and over the life of the program.

- *Trading*: DEQ should only allow trading if DEQ can ensure the value inherent in trading is used to advance, and not frustrate, just and equitable mitigation priorities; ensure reductions occur at the pace and scale necessary to meet the state's mandatory climate targets and best available science over time; and protect against windfall profits for regulated entities and market manipulation. As a step towards the latter point, we appreciate DEQ proposing that it would plan to have trades reported to DEQ and track holders of compliance instruments.

- *Banking*: DEQ notes the potential early reduction benefits of allowing banking of compliance instruments, but unlimited banking could also have unintended consequences so there would need to be safeguards if DEQ pursues this option. For example, banking of compliance instruments can delay emissions reductions if entities are over-allocated compliance instruments.

- *Multi-year compliance periods:* The compliance period should be no more than 3 years. That would provide some flexibility, yet help ensure emissions reductions occur at the pace and scale necessary. Reductions of emissions need to happen as quickly as possible. Shorter compliance periods can drive earlier reductions. Shorter compliance periods can also help ensure entities/sectors are (and stay) on track in reducing their emissions.

With any or all of these compliance flexibility mechanisms, DEQ needs to have strong provisions in place for reporting, monitoring, and enforcement. Reporting, monitoring, and enforcement will be key to ensuring that the necessary emissions reductions are achieved at the pace and scale required.

Point of Regulation

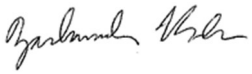
We generally support the point of regulation leanings DEQ presented at RAC meeting #2:

- Regarding natural gas at stationary sources: We ultimately want the point of regulation at whichever point would lead to the most emissions reductions.

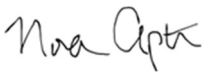
- Regarding fuel suppliers: The upstream approach of holding fuel suppliers responsible for emissions could help simplify the program while ensuring all emissions are accounted for. Although thresholds for regulation were not a specific topic for discussion, it's important to note that the best practice is to set the threshold for regulation of fuel suppliers at zero or near zero to prevent companies from avoiding regulation.

Thanks again for the opportunity to comment and we look forward to continuing the conversation on the items discussed above.

Sincerely,



Zachariah Baker
Oregon Policy Manager
Climate Solutions



Nora Apter
Climate Program Director
Oregon Environmental Council

From: Jennifer Leveque <jenileveque@gmail.com>
Sent: Wednesday, February 24, 2021 4:36 PM
To: GHGCR2021
Subject: Public Comment on Climate Protection Program RAC Meeting 2 February 24, 2021

To: Colin McConnaha, Manager, Greenhouse Gas Program
Department of Environmental Quality

RE: Public Comment on Climate Protection Program RAC Meeting 2
February 24, 2021

Dear Mr. McConnaha,
The Douglas County Global Warming Coalition representing 450 residents of rural Douglas County offers the following comments in regards to the second RAC meeting:
GREENHOUSE GAS EMISSIONS REDUCTIONS
We wish to thank the DEQ for presenting the option of greenhouse gas emissions reduction higher than that mandated by the Executive Order on Climate Change. Setting reductions at 50% by 2035 and 90% by 2050 is consistent with the best available science. We urge the DEQ to continue to be guided by the best available science as it determines the appropriate emissions reduction targets.
NATURAL GAS
In order to meet the emission reduction goals as mandated by the Executive Order, it is imperative that natural gas be covered to the greatest extent possible and that the program be designed to ensure maximum emissions reduction from this source.
POINT OF REGULATION
Criteria for selection of points of regulation should be governed by maximizing emissions reduction
ALTERNATIVE COMPLIANCE
To the extent that alternative compliances are permitted, they should encourage early and significant emission reductions. Further, permitted alternative compliance mechanisms must generate emission reductions equivalent to those stipulated within the targeted time frame.
To cite two examples:
Trees that are planted may capture the amount of carbon required but not within the time frame of the program. Thus, it would fail to meet the goals of the program. The purchase of electric buses was cited as a potential alternative compliance mechanism. Although we fully support the transition to electric buses, if the buses are retired after three or four years and replaced by fossil fuel powered buses, the goals of the program cannot be met.
COMMITMENT TO THE EXECUTIVE ORDER
Governor Brown's Executive Order on Climate Change has mandated State agencies to develop plans to meet specific greenhouse gas emission reduction goals. We request that the DEQ follow the mandated parameters of the Executive Order and, if the best science dictates, exceed them for the sake of ourselves, our children and the planet.

Sincerely,
Stuart Liebowitz, on behalf of the Douglas County Global Warming Coalition
143 SE Lane Avenue
Roseburg, OR 97470
Ph - 541-672-9819
email: dcglobalwarmingcoalition@gmail.com

February 26, 2021

Oregon Department of Environmental Quality

Office of Greenhouse Gas Programs

700 NE Multnomah St. Suite 600

Portland, OR 97232

GHGCR2021@deq.state.or.us ***Submitted via Email***

cc: *Kristen Sheeran, Nik Blosser, Richard Whitman,*

EDF appreciates the opportunity to comment on DEQ's presentation made to the second RAC meeting. Below, EDF comments on some of the topics presented at this meeting.

Alternative Compliance Instruments:

EDF will published a blog on our website Monday explaining why we are concerned about the potential for Alternative Compliance Instruments (ACIs) to undermine the cap and the overall environmental integrity of the program. We are incorporating the blog in full here as it provides a good summary of our concerns for DEQ to consider as well:

Oregon's Executive Order Set a National Model—But DEQ's may create a backdoor could undermine the whole effort

Last Friday, the U.S. officially reentered the Paris Agreement after being on the sidelines for four years. Even with the federal government beginning to restore and strengthen climate leadership, states still have a critical role to play accelerating near-term reductions in pollution and putting in place the policy frameworks that can guarantee long-term change. Oregon's recently launched Climate Protection Program has the potential to deliver critical state-led climate leadership by putting an enforceable limit on emissions across its economy. This limit would decline in line with Oregon's science-based climate targets, ensuring that the state slashes harmful climate-warming pollution. The promise of making a significant dent in harmful climate pollution—and delivering a replicable model for states across the country— is why EDF and the broader environmental community are so concerned about a few policy design suggestions that could severely cripple Oregon's ability to reach the climate goals Governor Brown has committed to achieving.

In this installment, we want to shine a light on one design element that could provide a backdoor to blowing the climate budget that Oregon will rely on to achieve its climate goals: the alternative compliance instrument. It may seem like a wonky term, but it's an incredibly important piece of the puzzle to get right. While the way agency staff are describing ACIs is concerning, there is still plenty of opportunity to get on the right track. We offer some suggested solutions later in this blog.

What is an alternative compliance instrument?

To understand the “alternative compliance instrument” or ACI, it helps to review how the limit on climate pollution works. The government sets an overall limit on tons of climate pollution and then creates compliance credits (often called “allowances”) equal to that limit. This limit is enforced by requiring large polluters to turn in an allowance for each ton of pollution they put into the atmosphere. Once the allowances run out, no more pollution is allowed.

Unfortunately, instead of that straightforward mechanism, the Department of Environmental Quality (DEQ) is proposing that businesses could also earn these ACIs when they invest in as-yet-to-be approved activities like installing electric heat pumps. These ACIs would be another way, a backdoor if you will, for businesses to meet their obligation under the rules. Instead of turning in an allowance, businesses could turn in an ACI for compliance.

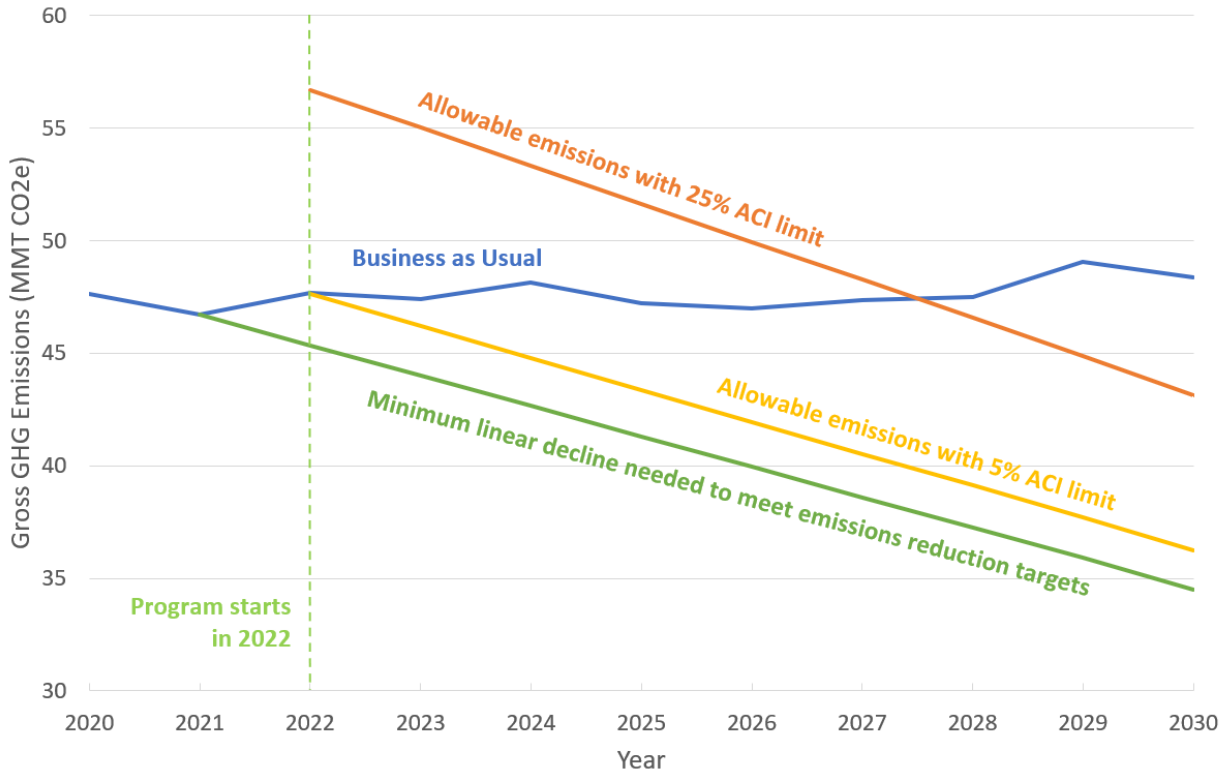
Allowing this could undermine the pollution reduction goals the program is designed to achieve—more allowances in circulation equals more allowable pollution from the sources under the program.

Why are ACIs a potential climate budget buster?

Creating ACIs *in addition* to allowances that represent the primary climate budget are a big problem for two reasons. First, the number of allowances is what creates the all-important enforceable limit that will keep climate pollution in check. Creating ACIs means *increasing* that limit for the covered sources— by an unspecified amount. Second, there is no requirement that an ACI actually is equivalent to securing one ton of greenhouse gas reductions elsewhere, so unlike a traditional “offset” which allows reductions at an uncovered source in exchange for extra emissions from a covered source, the ACI is not likely to be pegged to quantifiable, enforceable, verifiable, and permanent reductions.

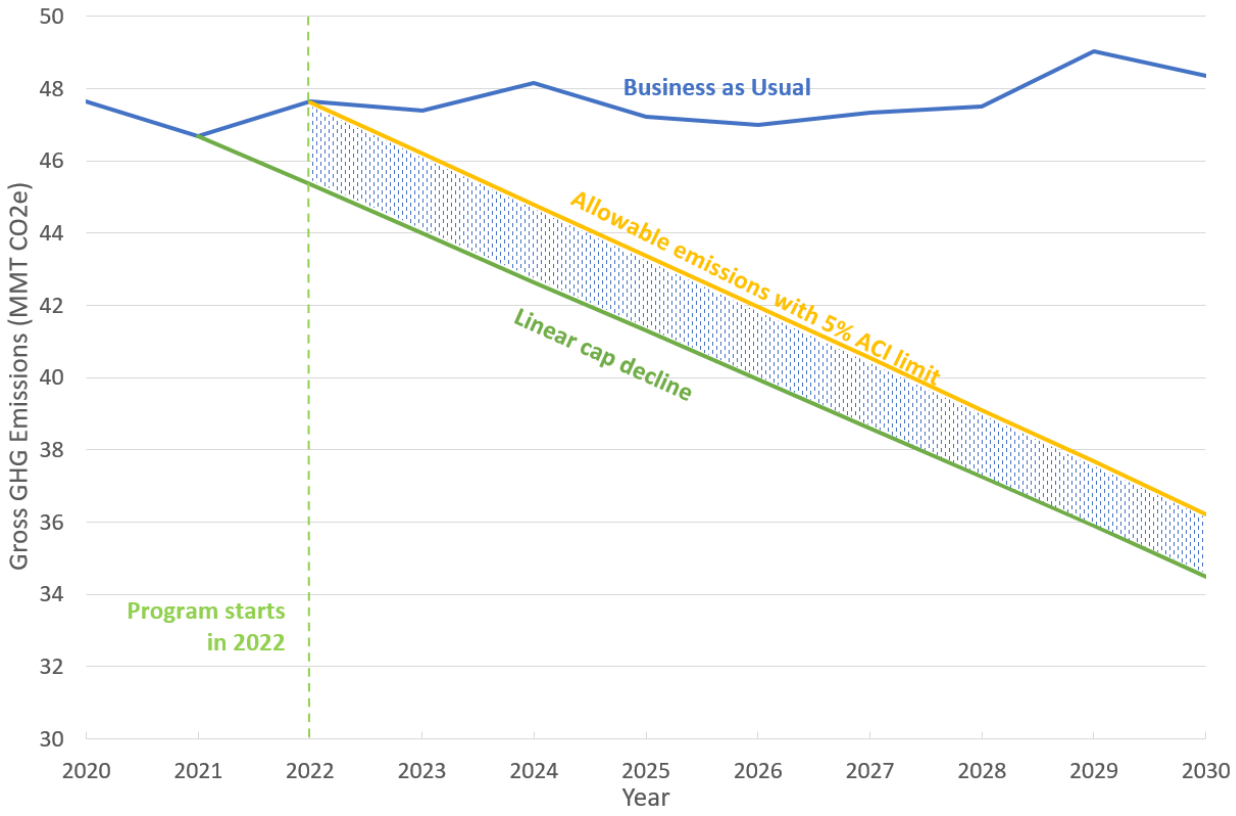
Finally, the investments businesses would make to earn those ACIs would help reduce pollution not of “uncovered” sources, but would actually be targeted at “covered” sources—the ones covered by the limit in the first place. Using ACI’s in addition to budgeted allowances would make it less likely that regulated polluters would make on-site reductions *and* would increase the overall number of tons allowed into the atmosphere.

DEQ has commissioned economic modeling where they will look at allowing Oregon’s climate budget to increase by between 5-25% with the use of ACIs. The figure below uses EDF’s forecast of Oregon’s climate budget and then shows the possible increase in emissions from covered sources from a use of ACIs. Note that in the 25% scenario the climate budget exceeds even expected business-as-usual emissions until the late 2020s.



The minimum linear decline needed to meet emissions reduction targets shows the emissions reductions needed to stay on a linear, declining trajectory from 2021 BAU emissions to the state's 2035 target, assuming the first reductions from the program take place in 2022 when the program starts. This is the minimum cap decline trajectory that Oregon's regulated sources must meet in order to ensure the Oregon achieves its emissions reduction targets. This chart shows the allowable greenhouse gas emissions from regulated sources under the 5% and 25% ACI limits that Oregon is considering, relative to business as usual and the minimum linear decline needed to meet emissions reduction targets.

The problem with ACIs becomes even more stark when we consider the cumulative impacts on climate emissions from Oregon. Under the 5% scenario Oregon's regulated sources would be allowed to put an extra 18 million metric tons (MMT) of greenhouse gases into the atmosphere between 2022 and 2030, whereas under the 25% scenario they would be allowed to put a whopping 90 extra MMT of climate pollution into the atmosphere. This is significantly larger than the 70 MMT that the program must reduce below business as usual between 2022 and 2030 to be on track to achieve Oregon's emissions reduction targets. These numbers are represented by the shaded areas under the yellow and red ACI lines.


Business as Usual
Allowable emissions with 5% ACI limit
Linear cap decline
Program starts in 2022
Gross GHG Emissions (MMT CO2e)
Year
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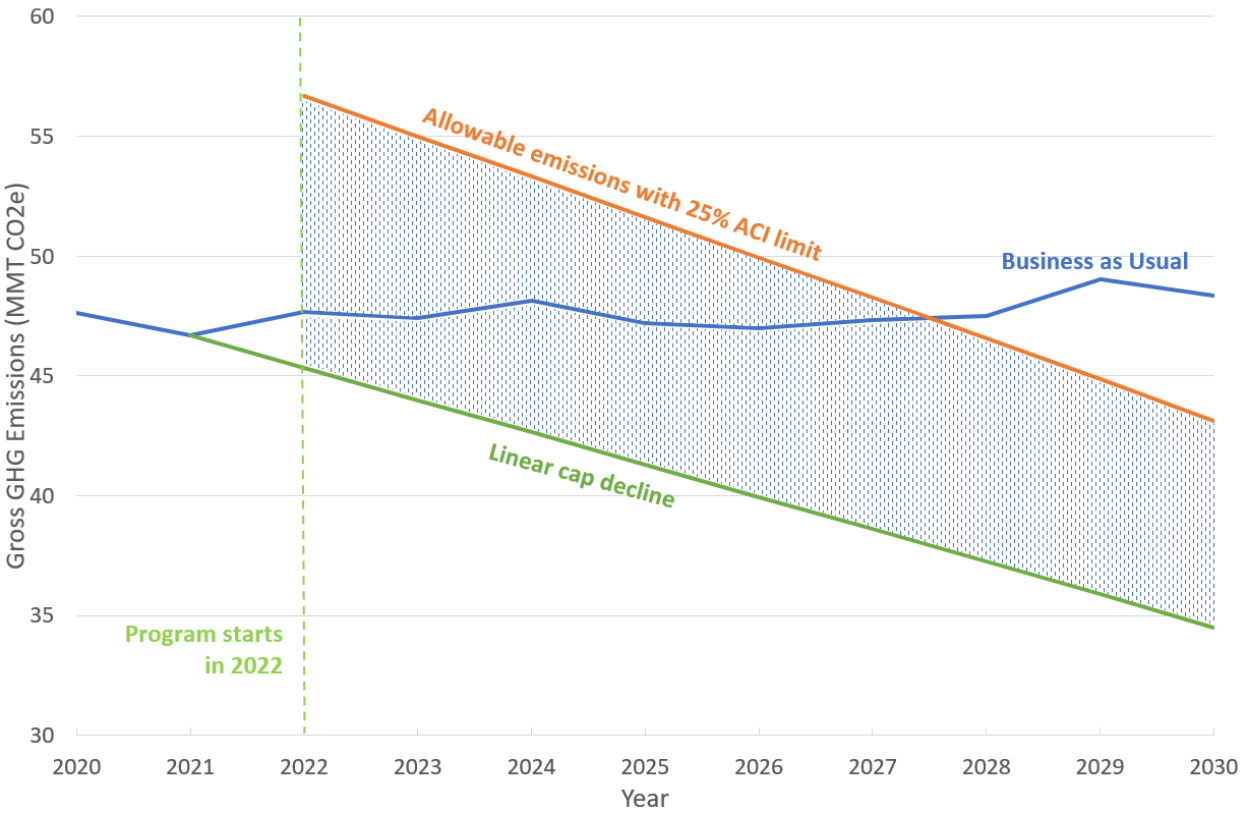
Allowable emissions with 25% ACI limit
Business as Usual
Linear cap decline
Program starts in 2022
Gross GHG Emissions (MMT CO2e)
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These graphs make it crystal clear: ACIs could add dangerous amounts of climate pollution to the atmosphere -- hurting, not helping Oregon in its efforts to cut pollution on an urgent timeline. Even considering such a large volume of ACIs is unconscionable.

Keep the good, toss the bad

DEQ is trying to frame ACIs as a design feature that can promote equity by directing climate investments towards predominantly, low-income and communities of color, as well as communities overburdened by pollution. Ensuring those communities see benefits from climate investments is critical. This distribution of value is a topic we will revisit in more detail in a future blog. But there many better alternatives for creating investments without raising the limit on climate pollution.

Hewing most closely to DEQ's existing proposal, one option is for DEQ to approve eligible protocols for climate investments, as DEQ is currently envisioning. For example, DEQ could approve investments for electric vehicle infrastructure or building electrification. But instead of creating new ACIs that are additional to the cap and could blow up Oregon's climate budget, DEQ could award businesses who make these investments with allowances from *within* the climate budget. Similarly, if DEQ is going to accept 10% ACIs, they could lower the number of available allowances by 10% as well.

DEQ also believes ACIs are important for "flexibility," meaning they will make it easier for businesses to comply. Some flexibility measures may be important, but too much flexibility will compromise the program's core mandate to cut climate pollution at the pace and scale the state needs to avert the most damaging climate impacts. DEQ has many other options -- some of which they are already considering -- for including appropriate levels of flexibility into their program.

It's far too late in the game for states like Oregon or the U.S. to put forward ambitious climate policies that don't deliver pollution reductions on the timeline that science demands. This is a pivotal decade for action, and we need robust climate policy that can truly safeguard Oregonians' futures.

Based on these concerns EDF makes the following recommendations to DEQ:

- DEQ should not use ACIs generated from reductions already covered by the cap as a "flexibility" mechanism. DEQ should not allow the allowable level of pollution to increase through use of ACIs. There are at least three ways to effectuate this goal even without the use of auctions and while maintaining investments in reductions that promote equity and justice: 1) DEQ could adopt these same investment protocols that DEQ envisions using for ACIs, but instead of using these protocols for ACIs above the cap DEQ could reserve a portion of allowances to award to regulated entities that make protocol investments. 2) DEQ could adjust annual budgets downwards (relative to a linear decline between 2022 and the 2035 goal) by the same percentage as allowable ACI use. (Businesses can meet 5% of their compliance obligation with an ACI and the annual cap budgets are adjusted downward by 5%, making 5% fewer allowances available.) 3) DEQ could require the retirement of an allowance when an ACI is generated.

- ACIs generated from reductions outside of the cap are better suited to provide flexibility as they do not present a "double crediting" issue. In most other programs these out-of-cap reductions are known as offsets. Thus, we refer to them here as offsets to distinguish from DEQ's envisioned ACIs that would come from reductions made under the cap. If offsets are allowed, DEQ should consider the impact on environmental justice communities, including the impacts of co-pollutants from regulated sources that are able to use offsets for some portion of compliance instead of reducing emissions directly. In order to promote equity and justice, DEQ could consider limiting offsets to providing environmental benefits within Oregon or even further to providing benefits to designated stakeholders such as tribes, low-income Oregonians, pollution overburdened communities, farmworkers, and predominantly minority communities. For example, tribes in Oregon have already benefited from selling forest offsets into California's market and urban forestry offsets could provide many co-benefits in addition to GHG reductions in communities. DEQ should also consider a meaningful limit on offsets on the order of no more than 4-6 percent of compliance obligation. DEQ could also consider restricting the use of offsets from sources that are out of compliance with other environmental laws or that are deemed to provide a significant impact on the cumulative pollution burden of identified communities.
- The levels of ACIs or offsets modeled in DEQs proposed scenarios they have scoped with ICF are far too high to even be considered. A 25% use of ACIs would allow emissions *above* BAU until approximately 2028. (This calculation is based on EDF's projection of BAU and covered emissions that we developed from Rhodium Group Data. The linear cap decline is based on a straight-line reduction between 2022 BAU emissions and the 2035 target.) The inclusion of a 25% ACI limit in modeling will negatively impact the usefulness of the modeling exercise as a whole, by distorting the results of scenario 3 to an extent that we are unable to get realistic information about the benefits and costs of other design elements included in that scenario.
- In order to even begin to address their stated commitment to equity and justice, DEQ must find a way to distribute the value of allowances created by this program beyond those regulated by the program. Developing investment protocols is one way to do that. However, DEQ should not and does not need to sacrifice environmental integrity and Oregon's ability to achieve its climate targets to do so.

Legal support for distributing value created by allowances beyond regulated polluters:

A lawsuit resolved in California in 2017 supports the idea that allowances are valuable assets that should not be distributed to polluters for free without a strong rationale for doing so.

In *California Chamber of Commerce v. State Air Resources Board*, 10 Cal. App. 5th 604 (2017), the California Court of Appeal upheld California's auction of emission allowances under the State's cap and trade program. This cap-and-trade program, like Oregon's proposed program, created "allowances", some of which were distributed for free and others of which were auctioned. The court rejected the plaintiffs' contention that California's decision not to directly distribute all allowances to regulated entities for free imposed a "tax" and was thus subject to California's requirement to pass taxes with a 2/3 supermajority. The court based its decision in

large part on the fact that "[t]he purchase of an allowance, whether at auction or in the secondary market, conveys a *valuable asset*—the privilege to pollute the air." *Id.* at 646 (emphasis added); *see also id.* at 634 (emission allowances are "valuable property interests"); *id.* at 649 ("emissions allowances consist of valuable, tradable, private property rights"). The court recognized that a cap-and-trade system requires an initial distribution of allowances into the market, and that "once such a system was chosen, the Board had to decide who would capture the value of distributed allowances." *Id.* at 623. That is, the choice of a distribution mechanism inherently involves a *choice* about who will realize the value associated with those assets: "[i]f covered entities receive the allowances free of charge, they capture the value associated with the allowances. . . . [W]hoever receives the initial allocation of allowances will receive a 'windfall' equal to the[ir] value." *Id.* at 623.

By creating new valuable assets and then giving them away to the state's largest pollution sources, the Commission's proposal must be reconciled with Oregon's Public Purpose Doctrine. Article XI, section 7 of the Oregon Constitution states, "[t]he Legislative Assembly shall not lend the credit of the state nor in any manner create any debt or liabilities which shall … exceed the sum of fifty thousand dollars, except in case of war or to repel invasion or suppress insurrection or to build and maintain permanent roads." Or. Const. Art. XI, § 7. Article XI, section 9 states, "[n]o county, city, town or other municipal corporation … shall become a stock holder in any joint company, corporation or association … or raise money for, or loan its credit to, or in aid of, any such company, corporation or association." Or. Const. Art. XI, § 9. Read together, these constitutional provisions form the basis for the Public Purpose Doctrine, which prevents public funds from being used for private purposes. *See Carruthers v. Port of Astoria*, 249 Or. 329, 332-36 (1968) ("Since the start of the 20th Century, it has been settled that public funds cannot be expended for other than a public purpose."); 44 Or. Op. Atty. Gen. 20, 1983 WL 174378. Although emission allowances are not cash, they are readily convertible to cash because of their value and the market created by the program. **Completely free allocation of allowances is thus little different from a public gift of cash. The Commission should explain how a gift of such valuable assets to the state's biggest polluters is consistent with the Public Purpose Doctrine.**

EDF believes that allowances should only be allocated to regulated entities for free where doing so serves a *public* purpose and is not for the sole benefit of the private recipient. Avoiding leakage of business activities that would create emissions leakage would constitute a sound public purpose. However, DEQ has proposed allocating allowances, at least initially, based on historical emissions. DEQ has not indicated an intent to complete a leakage analysis even though they have contracted for economic modeling to support program design. Nor has DEQ done a qualitative assessment of leakage risk. For example, businesses identified in previous legislative efforts as EITE have been determined by other policy makers to face risk of leakage. Whereas the transportation sector may face very low risk of leakage. Thus, EDF is concerned that DEQ's ultimate distribution of allowances may fail, in part, to serve a public purpose.

This relates back to ACIs since DEQ is promoting ACIs as a way to distribute value beyond regulated entities. However, doing so by raising the allowable level of pollution from covered sources—and potentially double crediting those reductions where ACIs come from sectors that

are be regulated under the cap—is not the right path to an ambitious program that will allow Oregon to achieve its climate goals. Rather, DEQ should distribute allowances based on estimates of leakage risk and award other allowances in a way that provides a public benefit. For example, by requiring regulated entities to make an approved investment in order to receive an allowance.

Respectfully submitted,

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Moore Noise, LLC

March 1, 2021

Oregon Department of Environmental Quality
Cap and Reduce Program
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

Submitted via email to GHGCR2021@deq.state.or.us

Re: Rules Advisory Committee Meeting #2 – Comments

This comment letter is submitted on behalf of EVRAZ Portland. Thank you for the opportunity to participate in the Rules Advisory Committee (RAC) Workshop 2 to support development of the Oregon Climate Protection Program (CPP, formerly Cap and Reduce) regulations.

Oregon Department of Environmental Quality (DEQ) staff requested input and discussion on Compliance Mechanisms and Point of Regulation during Workshop 2. It is difficult to provide quality input to DEQ on these issues in isolation from their interface with other program elements and supporting technical information regarding how they would function in the program. We are providing input as requested with discussion regarding potential issues.

Compliance Mechanisms

Banking and Trading

Banking and trading could provide a margin of flexibility and smooth the response to fluctuations in compliance obligation at an end use due to weather or production variations. However, because of the immediate compliance obligation and steep decline of the proposed cap, these mechanisms are not likely to provide a substantial compliance path in the overall program. We believe these resources will be scarce soon after startup of the program.

Alternative Compliance Options

In the small group discussions, EVRAZ presented information on two projects that would serve as examples of appropriate use of alternative compliance options (ACO). These examples were the installation of a solar system at the EVRAZ Pueblo facility. This facility is in Colorado and is in construction to become the first solar-powered steel mill in North America. Steel is identified as a difficult to decarbonize sector (Exponential Roadmap to Halve Emissions by 2030, Version 1.5,

September 19, 2019, revised January 2020, page 36). EVRAZ's solar project is a substantial investment, and an important and innovative approach to decarbonizing this sector. This type of project would not be feasible to pursue at the Portland facility, and is targeted to reducing electric consumption. This type of meaningful investment that benefits overall greenhouse gas emissions reductions and demonstrates technological feasibility should be allowed as an ACO under Oregon's program. The second project discussed was the current effort to purchase a new low-emitting locomotive engine for the Portland facility. This project will reduce emissions of greenhouse gases, and criteria pollutants and toxic emissions. The mobile source emissions of the locomotive are not part of the EVRAZ air permit, but clearly this project would provide many benefits and would be an excellent candidate for ACO credits.

It appears that the use of ACO is the only meaningful option as a compliance path for difficult to decarbonize sectors and to manage timing of the aggressive cap decline of those options presented by DEQ staff. We support broad applicability and inclusion of greenhouse gas reducing projects under ACO. Because ACO appears to be the only meaningful compliance path presented by DEQ, the lack of analysis of potential availability and cost of ACO in the discussions of compliance path options is a significant concern. DEQ indicated that in the economic modeling, they are planning to assume there is an unlimited supply of ACO within Oregon to meet compliance obligation needs. The maximum amount of ACO currently under consideration in modeling for meeting compliance obligations is 25%.

The compliance options presented by DEQ will likely not be anywhere near sufficient to address potential cost issues for Emissions Intensive Trade Exposed (EITE) sectors. We have previously attached the Vivid Economics analysis of EITE leakage risk[1] to our letter dated December 9, 2020 from Moore Noise, LLC.

We will state again that avoidance of emissions leakage is a substantive issue for the basic success of the proposed Climate Protection Program, and for the viability of EITE businesses in Oregon. Responding to natural gas costs after damaging cost increases to EITEs will not reliably avoid adverse impacts to these sectors. A proactive regulatory regime will be required. This is particularly imperative considering the limitations of the proposed economic modeling DEQ is performing in support of the CPP development.

Energy Conservation and Best Available Technology (BAT) as a Compliance Mechanism

DEQ should include energy conservation and Best Available Technology as proposed in the Cap-and-Trade Legislation as compliance pathways for EITE entities. Attachment 1 includes an article by the National Resources Defense Council (NRDC) regarding decoupling of cost recovery in the utility sector

[1] Carbon leakage is the transfer of greenhouse gas emissions from a municipality, state, or country with strict carbon emissions policy or laws to other jurisdictions without, or with less strict, policy or laws.

from energy use (Oregon has implemented this for both electric and natural gas sectors). The opening statement of this fact sheet from 2018 is:

“Using energy more efficiently is the cheapest and cleanest way to serve America's energy needs. For instance, by making energy-saving improvements in buildings, processes, and devices served by America's electric and natural gas utilities, there's potential to save nearly $700 billion by 2020, as well as create jobs, and significantly reduce pollution.”

Energy conservation is well recognized as a method to reduce other pollutant emissions as well as greenhouse gas emissions. A reasonable emission reduction planning, audit, and implementation would achieve program goals while protecting EITE businesses from unfair competition.

Stationary sources that use Best Available Technology for control of greenhouse gas process emissions are not reasonably able to reduce emissions further and this level of control should be considered a compliance pathway.

Point of Regulation for Natural Gas

The point of regulation for Natural Gas is the second topic for which DEQ staff requested input. The point of regulation proposed is either at the supplier (local distribution company [LDC], marketer, or pipeline company). For most smaller end users (non-transportation customers of the LDC), there are likely to be benefits of regulation at the supplier because this would potentially provide a lower regulatory burden for tracking compliance, and the potential to aggregate compliance pathway mechanisms over a larger number of sources. However, there are issues with this approach even for smaller end users that should be thoroughly vetted prior to a decision on this issue.

Imposing a cap at the supplier without articulating compliance options under the cap for EITEs, low-income residential uses, and small business uses could have adverse program outcomes. The discussion in the **Compliance Mechanisms** section of this letter outlines issues and possible solutions for EITEs. Issues for low-income households are obvious from a cost perspective, but many low-income households may also rent, and this poses another set of issues that may affect small businesses as well and prevent these sources of emissions from implementing energy conservation measures to reduce costs.

Attachment 2 includes an article on *Examining Small Business Impacts in the Regulatory Development Process* (U.S. Small Business Administration, Office of Advocacy), and Attachment 3 includes the *Oregon Small Business Profile, 2020* (U.S. Small Business Administration, Office of Advocacy).

The rental market has substantial decoupling of the cost pressure from the owner of the emitting equipment. This decoupling occurs when the tenant pays the utility bill, but the owner of the property controls the heating equipment. We interviewed the Director of Portland Real Estate Management Services for a leading commercial real estate brokerage professional services and investment management company for landlords, tenants, and investors. Decoupling in the form of triple net leases where the tenant is responsible for utilities and maintenance of heating ventilating and air conditioning

(HVAC) equipment and any common utility costs are passed through to tenants is the industry standard. Her analysis was that the least impact from cost increases would likely occur in large office buildings, and industrial warehousing with utility costs shared by all tenants, or where tenants tend to be large companies. The most impact in terms of direct costs to individual businesses would likely occur where utilities are typically not shared - in single tenant buildings or shopping centers. This could disproportionately affect smaller businesses because of natural gas cost increases. The useful life of HVAC equipment is in the range of 15 to 20 years, so changes to HVAC systems are major investments for smaller businesses.

From information in Attachment 3, the small business sector may not be able to sustain substantial cost increases, and adverse effects could be widespread based on the following information:

- Oregon small business employs 54.6% of the private work force.
- Firms with less than 20 employees have the largest share of small business employment.
- 88.1% of firms exporting goods from Oregon are small businesses.
- The median income for self-employed individuals at their own incorporated business was $51,240.
- The median income for self-employed individuals at their own unincorporated firms was $24,693.
- Minorities are a significant portion of Oregon small business self-employed.

Overarching issues that need to be addressed meaningfully for the supplier regulatory point are appropriate accounting for and control of leakage (protection of EITE entities from unfair competition), impacts to the small business sector including minority small business owners, and impacts to low-income residents. It will be important for regulations to include mechanisms to support small landlords and tenants to make the changes needed in response to cost pressures to reduce greenhouse gas emissions. There may be several potential solutions for these types of issues and this could be further investigated with the LDCs and input from small businesses.

For end users that receive gas through transportation contracts, and for larger end users with direct purchase from the LDC, there is an opportunity loss for implementing their own energy conservation program. This phenomenon is recognized in the electric utility sector through the large electric consumer public purpose program. Otherwise, some of the same benefits and issues may apply for the transportation gas sector and the prevalence of the issues would be related to what portion of transportation customers fall into EITE and small business categories. There may be other issues related to regulating an entity with no ownership of the natural gas, and therefore no nexus to the emissions.

We believe there would be substantial issues with ownership and allocation of compliance instruments if either pipeline companies, or marketers are the point of regulation.

We believe, as DEQ clearly does, that regulating at the end user for residential, and small commercial and industrial sector businesses is likely impractical. It would be useful to perform additional analysis on the issues presented prior to determining the cut points for regulation at individual end users.

Additional development of concepts to protect EITE businesses and support change in rental markets is needed.

Thank you for the opportunity to weigh in on these issues.

Sincerely,
Moore Noise, LLC

Martha Moore, PE
Principal Engineer/Member

cc: Debbie Deetz Silva/EVRAZ

Gas and Electric Decoupling

Share

Fact Sheet | by Dylan Sullivan & Donna DeCostanzo | August 24, 2018

Using energy more efficiently is the cheapest and cleanest way to serve America's energy needs. For instance, by making energy-saving improvements in buildings, processes, and devices served by America's electric and natural gas utilities, there's potential to save nearly $700 billion by 2020, as well as create jobs, and significantly reduce pollution. But, under traditional regulation, a utility that successfully helps its customers become more energy efficient risks not being able to cover its costs of serving customers and providing a return to investors.

year to compensate for under- or over-collection of fixed costs during the previous year. More than half the states have adopted decoupling mechanisms for either electric or natural gas utilities as a necessary (but not sufficient) part of the policies that allow utilities to invest in the cheapest and cleanest energy resource: energy efficiency.

Why It's Important to You

Utilities, together with their regulators or governing boards, are responsible for providing customers with reasonably-priced, reliable energy services. Energy efficiency is the cheapest, cleanest way for utilities to provide reliable service. But under traditional regulation, utilities are discouraged from investing in improved efficiency because it hurts them financially. Generally, utilities recover fixed costs through consumption charges. Therefore, when sales fall, utilities may not recover all their fixed costs, and when sales increase, utilities may collect more than their authorized fixed costs and reasonable return, creating windfall profits at customer expense.

This creates an incentive (often referred to as the throughput incentive) for utilities to work against energy efficiency despite policies promoting it. Customers lose in every scenario: if sales are higher than projected, they pay for windfall profits; if sales are lower, the utility can still recover its approved costs but has to go through a costly litigated regulatory proceeding to do so, which customers pay for. Regardless of whether sales go up or down, customers lose the economic benefits they would have enjoyed if their utility invested in cost-effective energy efficiency.

To remove this "throughput incentive," regulators or governing boards can decouple utilities' recovery of fixed costs from sales. To implement a decoupling mechanism, regulators or governing boards set up a periodic automatic process to compare actual and authorized revenues and adjust rates accordingly. Years of experience in numerous states shows that decoupling eliminates the disincentive for utilities to help their customers become more energy

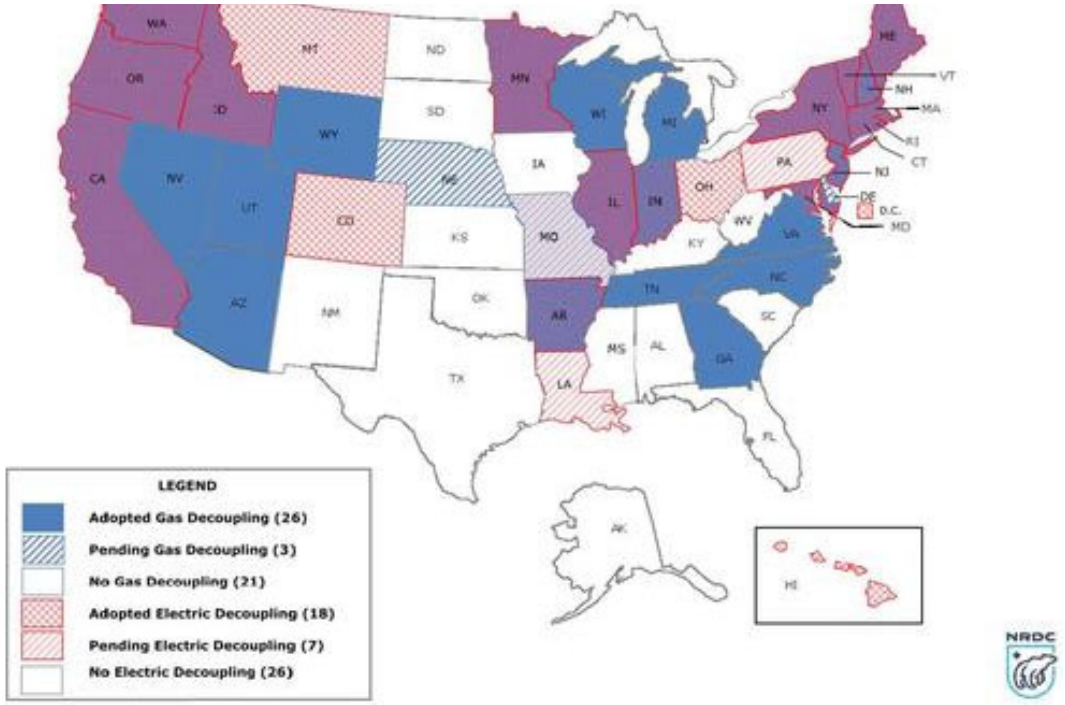
What NRDC and You Can Do About It

Decoupling has a powerful impact on a utility's incentives, but requires only a small change in the ratemaking process. However, decoupling alone will not necessarily turn a conflicted utility into one committed to capturing all cost-effective energy efficiency. Decoupling is part of a package of policies that leads to maximum energy efficiency success. Other critical policies for which NRDC is advocating include:

- Making cost-effective energy efficiency the highest priority energy resource and setting aggressive energy- and demand-saving targets to capture the full potential
- Allowing utilities timely recovery of prudently-incurred costs of delivering energy efficiency programs
- Providing performance-based shareholder incentives for investor-owned utilities to reward energy efficiency and ensure that investments in cost-effective energy efficiency opportunities are as attractive over time as alternative investments in generation and infrastructure
- Conducting independent evaluation, measurement, and verification of efficiency program impacts
- Ensuring that energy efficiency program portfolios comprehensively address all major energy uses by residential, business, and industrial customers, and include initiatives targeted to assist lower-income households

Decoupling Across the United States

In recent years, regulators around the country have increasingly adopted decoupling policies to support investment in energy efficiency. As the map below indicates, half the states in the nation now have policies to break the link between recovery of fixed costs and sales for natural gas and electric utilities.



	2013		Current	
	Utilities	States/DC	Utilities	States/DC
Gas	49	20	64	26
Electric	24	14	46	18
Total	73	25	109	33

Attachment 2

U.S. SMALL BUSINESS ADMINISTRATION
OFFICE OF ADVOCACY
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ISSUE BRIEF

ISSUE BRIEF NUMBER 14
RELEASE DATE: AUGUST 30, 2018

Examining Small Business Impacts in the Regulatory Development Process: The Drawbacks of Averaging

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Introduction

Federal agencies are required to prepare an economic analysis to quantify the costs and benefits of significant regulations they promulgate.[1] When formulating these analyses, Congress has mandated through the Regulatory Flexibility Act (RFA) that agencies also evaluate how their regulations will specifically affect small businesses.[2] Small businesses are an important segment of the economy, representing 48 percent of private sector employment and 62 percent of net new jobs.[3] Failing to take small businesses into account when assessing how best to achieve regulatory objectives can result in disproportionately burdensome rules and regulatory inefficiencies.

The RFA's purpose is to ensure that federal agencies consider small businesses in regulatory policymaking. However, when the regulatory impact analysis treats small businesses as a single group its insight is limited. This issue brief shows how separating small businesses into more detailed size groupings for regulatory impact analyses can help ensure that regulatory objectives can be achieved without unduly burdening the smallest businesses.

This issue brief uses the Statistics of U.S. Businesses (SUSB), a U.S. Census Bureau dataset cosponsored by the Office of Advocacy. SUSB contains detailed business size information so the effects of treating small businesses as a single group versus detailed groups in regulatory analysis can be compared. The issue brief evaluates 433

1. Executive Order 12866, "Regulatory Planning and Review," Sept. 30, 1993. www.archives.gov/files/federal-register/executive-orders/pdf/12866.pdf
2. The Office of Advocacy generally defines small businesses as those with fewer than 500 employees.
3. U.S. Small Business Administration, Office of Advocacy, "Frequently Asked Questions about Small Business," 2017. www.sba.gov/sites/default/files/advocacy/sb-faq-2017-web.pdf

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Data and Methodology

This issue brief uses the Census Bureau's 2012 Statistics of U.S. Businesses (SUSB). SUSB is an annual series that provides economic data on U.S. businesses by industry, size of business, and geographic area. The 2012 dataset is the latest available with estimated receipts for U.S. businesses. The analysis is limited to employer firms in industries defined with an employment size cutoff. Industries that have a revenue-based size standard are excluded. The analysis uses a 500-employee small business size standard. The 500-employee cutoff is the modal employment size standard and is commonly used for research. The data set excludes industries that have fewer than 50 businesses with fewer than 20 employees. The resulting study group contains 433 industries.

industries defined with employment size cutoffs to show the value of using more detailed size groupings in regulatory analysis. Industries with employment size groupings tend to be in manufacturing, wholesale trade, and mining. Two groups are analyzed: small businesses with 1 to 499 employees ("sub-500" businesses) and those with one to 19 employees (termed "sub-20" businesses).

Small Business Size Standards

Federal agencies use the Small Business Administration (SBA) size standard when analyzing the economic impact of proposed regulations to identify the number of small businesses likely to be affected.[4] The standards set the highest level of employment or revenue that a business in a specified industry can have to be classified as "small." The specific revenue or employee cutoff varies from one industry to the next, and it is derived by SBA according to industry factors.[5]

The size standards for small business span a wide range of enterprises. For example, 99.7 percent of all businesses are considered small using the cutoff of 500 employees or fewer.[6] An economic analysis of such a disparate group—which includes businesses with one employee and those with 499—is likely to overlook significant differences.

Smallest Firms (Sub-20) Are Most Numerous in Most Industries

Most industries contain a mix of large and small businesses. Within the small business group there is a distribution of small, medium and larger "small businesses." The distribution of these groups is not even—each group contains varying numbers of businesses. The SUSB shows that most industries are made up of a significantly larger number of businesses with fewer than 20 employees (or "sub-20" businesses).

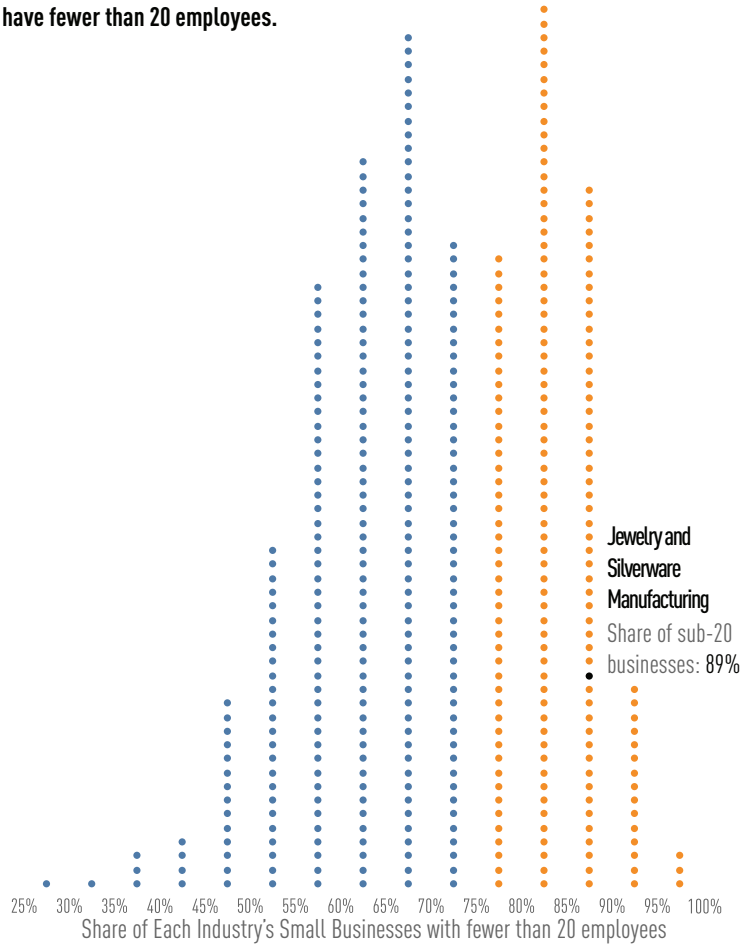
4. Under the RFA, agencies can use an alternative definition that is reviewed by the Office of Advocacy and published in the Federal Register for public comment.

5. SBA's Size Standards methodology can be found here: www.sba.gov/sites/default/files/size_standards_methodology.pdf

6. The size standard of 500 employees or fewer is often used in the Office of Advocacy's research publications to simplify cross industry analysis.

Figure 1 shows the percentage of sub-20 small businesses in each industry. Each dot represents a specific industry. In the vast majority of industries sub-20 businesses are the largest constituency. As seen in the figure, sub-20 businesses make up more than 75 percent of all small businesses in over a third of industries, and they are a minority of the total small business group in only 5 percent of industries.

Figure 1: Three-quarters of small businesses in 179 out of 433 industries have fewer than 20 employees.



Average Receipts of All Small Businesses and Sub-20 Businesses Are Very Different

When analyzing the prospective costs of regulations on small businesses, agencies compare the compliance cost of the regulation to the revenue of the businesses subject to it. This provides a context for the regulation's cost impact. However, the average receipts of the entire small business group (sub-500) and of sub-20 businesses are quite different.

As shown in the previous section, most industries are predominantly made up of sub-20 businesses, but the average revenue for *all small businesses* may not reflect these businesses. This is caused by the relatively small number of larger small businesses with high receipts pulling up the average. For example, small businesses with 100 to 499 employees across all industries average $74 million in annual receipts, which is 25 times greater than the average revenue of businesses with five to nine employees, $3 million.

Table 1 shows how such disparate revenues affect the overall average for all small businesses. In the industry example below, jewelry and silverware manufacturing, 89 percent of businesses have fewer than 20 employees and average revenues of $626,000. The other 11 percent of the industry (230 larger small businesses) have significantly higher average revenues of $12.9 million. When grouped together, the average revenue of *all* small businesses is $1.97 million. The industry average is significantly higher (about 3.1 times) than the average revenue of the sub-20 employee businesses that comprise 89 percent of this sector's small businesses (Table 1).

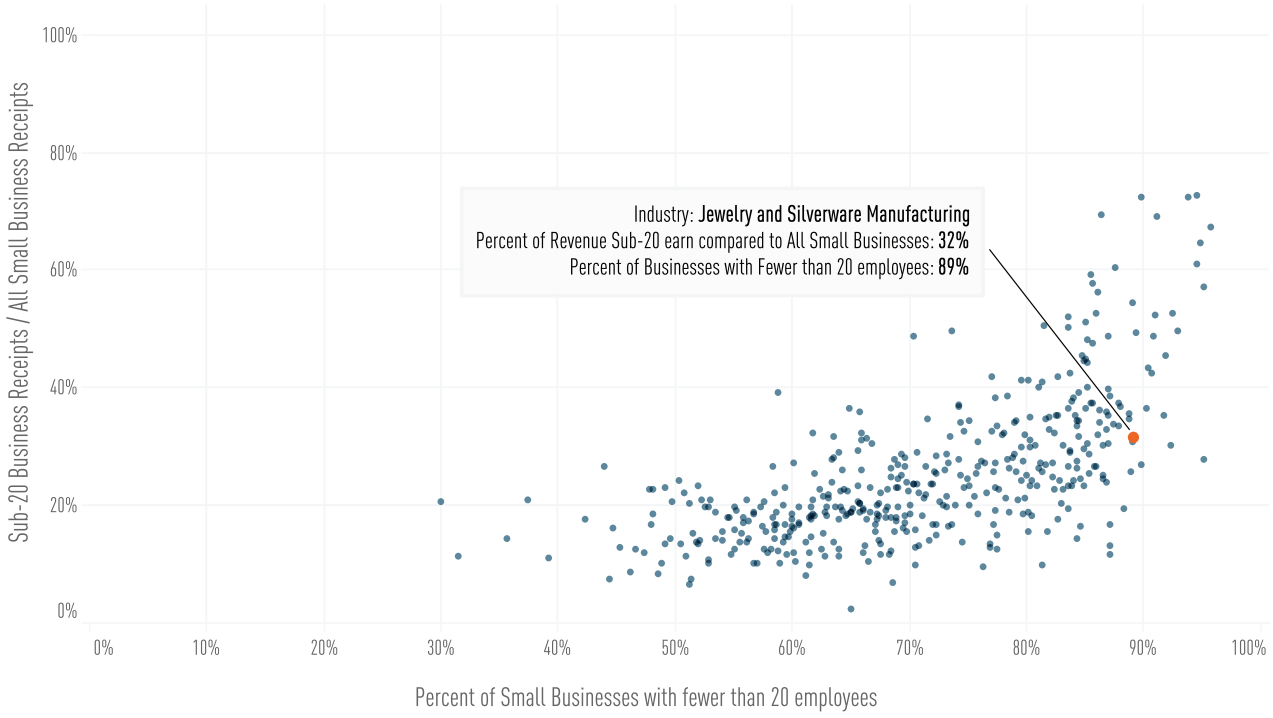
Table 1. Small Business Size Breakout of NAICS 339910: Jewelry and Silverware Manufacturing

	Number of Firms	Percent of All Small Firms	Average Annual Revenues ($)
Sub-20 businesses (1-19 employees)	1,860	89	626,000
Larger small businesses (20-499 employees)	230	11	12,910,000
All small businesses (499 or fewer employees)	2,090	100	1,971,000
Ratio of average annual receipts of all small businesses to sub-20 businesses			3.1

This example is not an extreme. It is a fairly typical distribution found in the SUSB data. Figure 2 shows the average revenue comparison for every industry, as well as the percent of sub-20 businesses in each industry. As seen in the figure, the sub-20 small businesses have significantly lower revenues than when you look at all small businesses in most industries. In 78 percent of industries the average revenue for a sub-20 business is 33 percent the average revenue for all small businesses. In 24 percent of industries the sub-20 small businesses make less than 15 percent of the average revenue for all small businesses.

As expected, industries with a greater representation of sub-20 businesses tend to have a smaller disparity. This occurs because there are relatively fewer 20-499 employee businesses to pull up the average. Even so, in 84 percent of industries with very high sub-20 business representation their average revenues are still only 50 percent of all small businesses.

Figure 2: Revenue Difference Between All Small Businesses and Sub-20 Small Businesses



In Practice: Determining the Impact of Regulation

Agencies use different conventions when determining the economic significance of regulatory impacts on small businesses. While no single rule of thumb is appropriate for all businesses or industries, regulatory costs that amount to less than 1 percent of business revenue are often deemed not to impose a significant burden. As seen above, the average revenue for the entire small business segment of an industry is heavily weighted by its larger constituents, and usually to such an extent as to misrepresent the revenues of the majority of industry participants, particularly the smallest businesses. When the impact assessment only compares the estimated regulatory cost to the industry revenue average, it appears that the likely impact is not burdensome to the industry (that is, it amounts to less than 1 percent of revenue); however it may have a much greater burden for a majority of the industry, typically smaller businesses.

The jewelry and silverware industry can again be used to illustrate this problem. If in order to achieve a regulatory objective, a regulation imposes an estimated compliance cost of $20,000 on each business in the industry, the impact will be 3 percent of revenues for sub-20 employee businesses, which make up 89 percent of the industry. Meanwhile, the impact on larger small businesses amounts to only 0.2 percent of revenues.

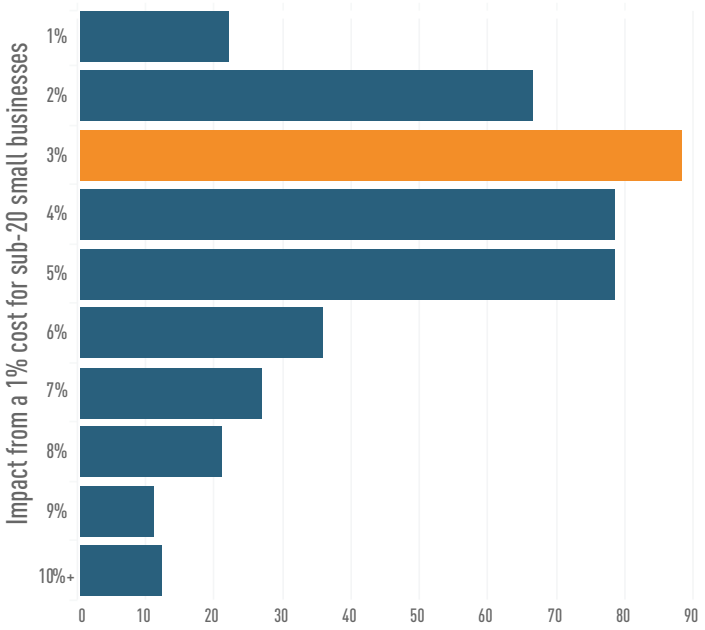
A cost impact of 3 percent of revenue can be considered high. However, without separating the small businesses into different size categories this disparity would be concealed, since the cost-to-revenue comparison for *all* small businesses shows an impact of only 1 percent (Table 2).

Table 2. Regulatory Impact by Firm Size in NAICS 339910, Jewelry and Silverware Manufacturing

	Annual Average Revenue ($)	Annualized Cost of Regulation	Cost of Regulation as a Percent of Revenues
Sub-20 businesses (1-19 employees)	626,000	20,000	3.2
Larger small businesses (20-499 employees)	12,910,000	20,000	0.2
All small businesses (499 or fewer employees)	1,971,000	20,000	1.0

Figure 3 shows how a regulatory impact of 1 percent on all small businesses affects sub-20 businesses in every industry. In 80 percent of industries, a 1 percent impact on all small businesses amounts to an impact of more than 3 percent for sub-20 employee businesses. Even more significantly, in 42 percent of industries the impact would be over 5 percent of revenue for sub-20 employee businesses. A regulatory cost that is over 5 percent of revenue is almost always considered very significant. However, if the analysis uses the average across all small businesses, the impact appears to be very small.

Figure 3: Impact on sub-20 businesses of 1 percent cost for all small businesses



Conclusion: Detailed Groupings Tell an Important Story

Unless agencies perform small business impact analysis on detailed size groups, they will lack full understanding of the impact of their policy proposals on an important source of economic growth and job creation. This issue brief shows how averaging the revenues of a dispersed set of small businesses in an analysis of regulatory impacts can cause the majority of small businesses to be misrepresented. In the examples above, heavy burdens on businesses with fewer than 20 employees in almost every industry may be missed. Large burdens can put smaller businesses at a competitive disadvantage, leading to loss of revenue and potential closures.

While this issue brief shows a simplified example, analyzing a regulation's impact on small businesses is complex. Costs fall on different sized business differently for every regulatory scenario. The smallest businesses may experience the smallest regulatory costs, yet experience the largest burden due to their size. Depending on the regulation, larger small businesses may be the ones faced with the highest burden, with the smallest businesses spared. Without performing regulatory analysis on finer-grained size groups, these consequences are hidden from view.

In some rulemakings, agencies have performed this type of analysis to improve their regulations. For example, the Department of Justice issued a rule regarding the required number of movie captioning and audio description devices in movie theaters. Utilizing the SUSB data and evaluating the impact on the different sized small businesses, they crafted the rule to lower the burden on the smallest theaters.[7] The Department of Agriculture also recently proposed a rule on food labelling requirements. In its proposed rule, the agency used SUSB data to set an exemption level for a subset of the smallest businesses, while providing a delay in implementation for other small businesses.[8]

Agencies should use the most detailed small business groupings as technically possible when analyzing their regulations. This is feasible using SUSB's 16 additional size breakouts of businesses with fewer than 500 employees.[9] Understanding the detailed makeup of an industry—and clarifying how the benefits and costs are distributed across these groups—can contribute to policy alternatives that reduce burdens and improve regulatory efficiency.

7. Final Regulatory Assessment and Final Regulatory Flexibility Analysis, Final Rule, Nondiscrimination on the Basis of Disability by Public Accommodations—Movie Theaters; Movie Captioning and Audio Description. U.S. Department of Justice, November 2016. www.ada.gov/regs2016/final_ra_movie_captioning.html

8. U.S. Department of Agriculture, Notice of Proposed Rulemaking, National Bioengineered Food Disclosure Standard, *Federal Register*, Vol. 83, No. 87; Accessed from Regulations.gov, May 4, 2018. https://www.regulations.gov/document?D=AMS-TM-17-0050-0004

9. In the most detailed size groupings, data quality can suffer. However, SUSB provides multiple larger groupings under 500 employees that suffer fewer quality issues.

Attachment 3

2020 Small Business Profile

U.S. SMALL BUSINESS ADMINISTRATION
OFFICE OF ADVOCACY
REGULATION • RESEARCH • OUTREACH

Oregon

387,819 Small Businesses
99.4% of Oregon Businesses

871,241 Small Business Employees
54.6% of Oregon Employees

EMPLOYMENT
17,795
net new jobs

DIVERSITY
42,869
self–employed minorities

TRADE
5,231
small business exporters

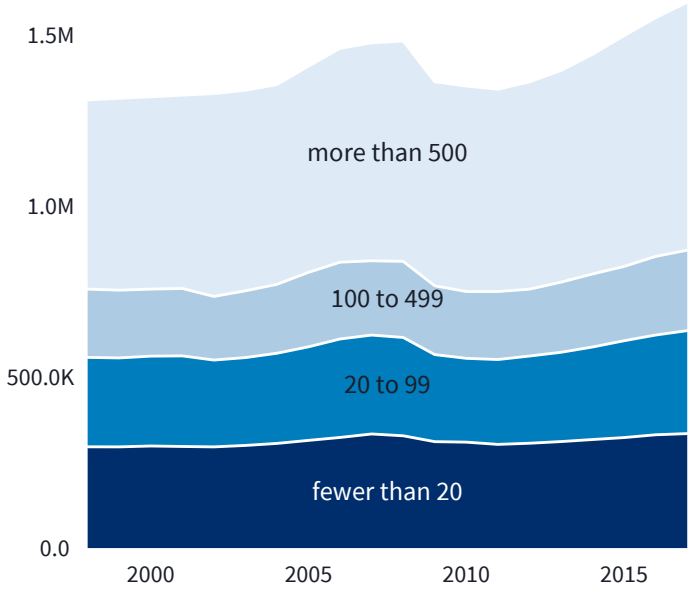
A note on COVID–19: This report uses the most up-to-date government data to present a unique snapshot of small businesses. The BLS employment estimates capture the early stages of the pandemic. All other sources reflect data collected prior to the pandemic.

Overall Economy

- In the fourth quarter of 2019, Oregon grew at an annual rate of 2.4%, which was faster than the overall US growth rate of 2.1%. Oregon's 2019 overall growth rate of 2.7% was down from the 2018 rate of 3.8%. (Source: BEA)
- In April 2020, the unemployment rate was 14.2%, up from 4.0% in April 2019. This was below the April 2020 national unemployment rate of 14.7%. (Source: CPS)

Employment

Figure 1: Oregon Employment by Business Size (Employees)



- Oregon small businesses employed 871,241 people, or 54.6% of the private workforce, in 2017. (Source: SUSB)
- Firms with fewer than 20 employees have the largest share of small business employment. Figure 1 provides further details on firms with employees. (Source: SUSB)
- Private-sector employment decreased 14.4% during the 12-month period ending in April 2020. This was below the increase of 1.7% during the prior 12-month period. (Source: CES)
- The number of proprietors increased in 2018 by 2.9% relative to the previous year. (Source: BEA)
- Small businesses created 17,795 net jobs in 2019. Firms employing fewer than 20 employees experienced the largest gains, adding 14,145 net jobs. The smallest gains were in firms employing 20 to 99 employees, which added 668 net jobs. (Source: BDM)

The Small Business Profiles are produced by the US Small Business Administration's Office of Advocacy (http://advocacy.sba.gov). These profiles define small businesses as firms with fewer than 500 employees. Net small business job change, self–employed minorities, and exporter share statistics are based on 2019 Business Employment Dynamics (BDM), 2018 American Community Survey (ACS), and 2018 International Trade Administration (ITA) data, respectively.

Income and Finance

- The median income for self–employed individuals at their own incorporated businesses was $51,240 in 2018. For self–employed individuals at their own unincorporated firms, median income was $24,693. (Source: ACS)
- The total number of banks decreased by 2 between June 2018 and June 2019 to 16 banks. During the same period, the number of banks with assets under $1 billion decreased by 2 to 15 banks. (Source: FDIC)
- In 2018, Oregon lending institutions reporting under the Community Reinvestment Act issued 84,999 loans under $100,000, a total value of $1.2 billion. (Source: FFIEC)

Median income represents earnings from all sources. Unincorporated self–employment income includes unpaid family workers, a very small percent of the unincorporated self-employed.

Self–Employment Demographics

Figure 2: Oregon Self–Employment Rates by Gender & Demographic, 2018

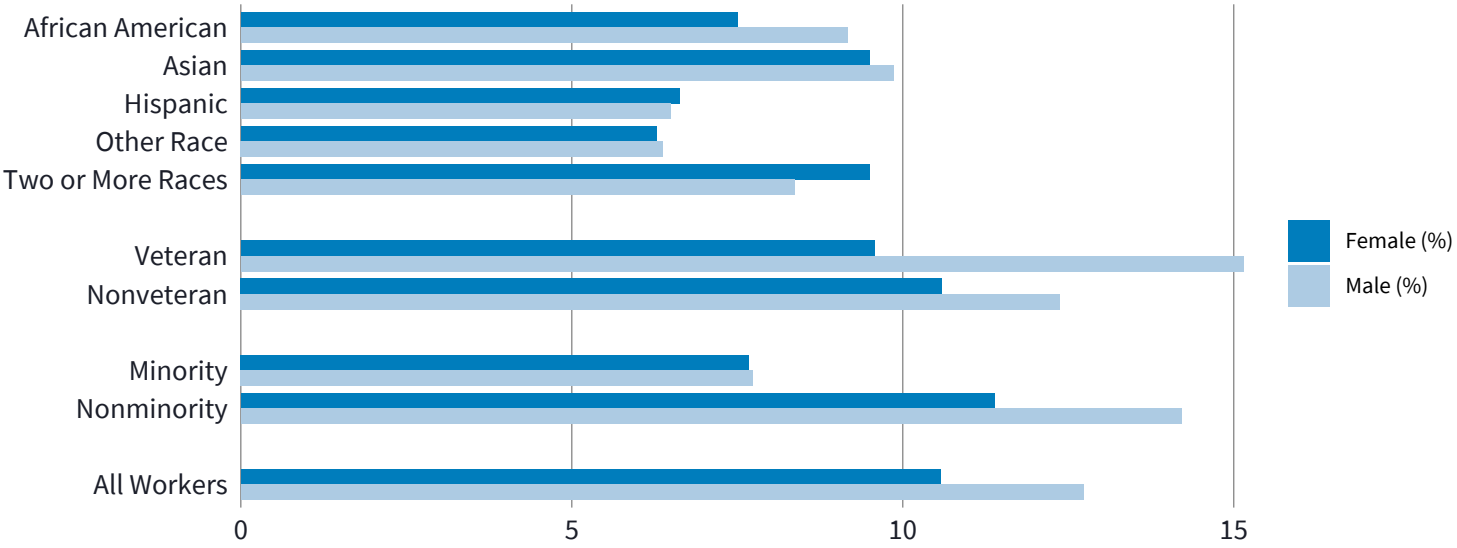
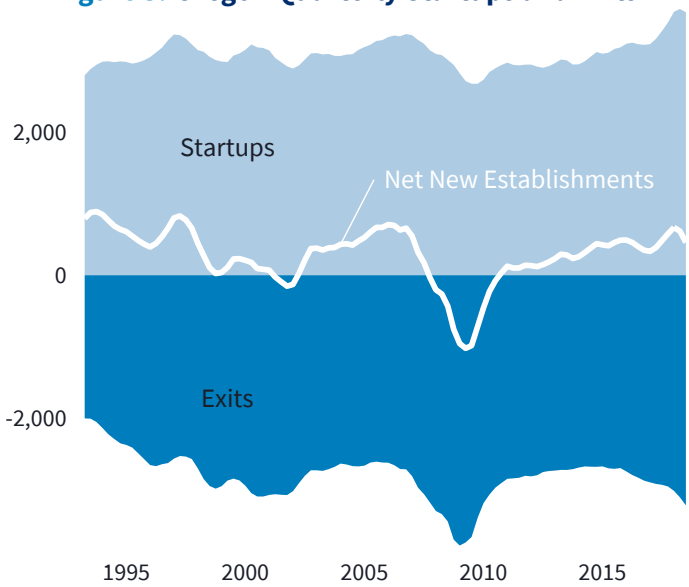


Figure 2 shows the self–employment rate for each demographic group by gender according to the 2018 American Community Survey (ACS). Other Race includes those who selected Alaska Native, American Indian, Native Hawaiian, Pacific Islander, or Some Other Race.

Turnover among Establishments with Employees

Figure 3: Oregon Quarterly Startups and Exits



- In the fourth quarter of 2018, 3,358 establishments started up, generating 10,502 new jobs in Oregon. Startups are counted when business establishments hire at least one employee for the first time. (Source: BDM)
- In the same period, 3,235 establishments exited, resulting in 9,203 jobs lost. Exits occur when establishments go from having at least one employee to having none, and then remain closed for at least one year. (Source: BDM)
- Figure 3 displays quarterly startups and exits from 1993 to 2018. Each series is smoothed across multiple quarters to highlight long-run trends. (Source: BDM)

The BDM data covers only business establishments with employees. BDM refers to startups as births and exits as deaths. These terms are distinct from the BDM openings and closings categories. Openings include seasonal re-openings and closings include seasonal shutterings. Quarterly startup and exit values may not align with Figure 3 due to smoothing.

International Trade

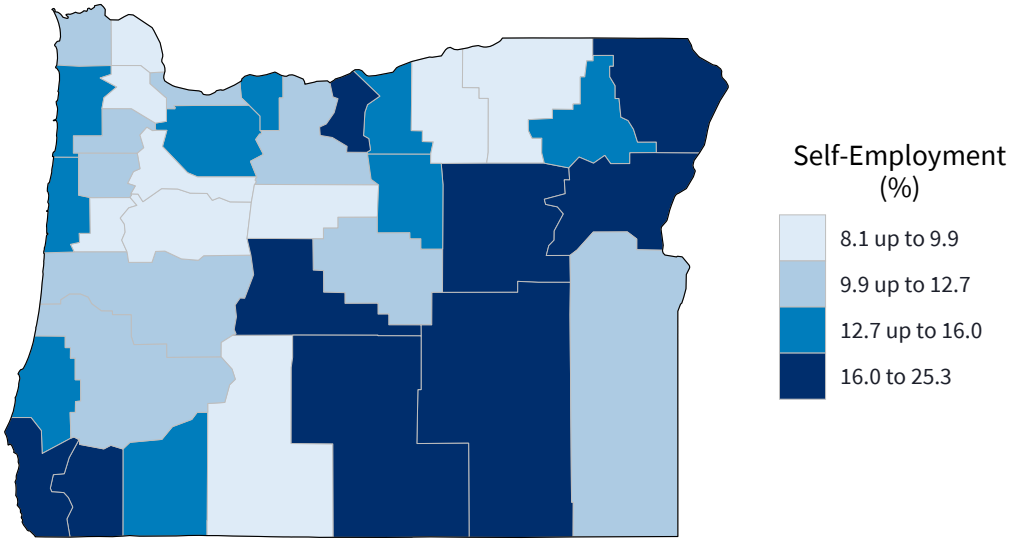
- A total of 5,936 firms exported goods from Oregon in 2018. Of these, 5,231, or 88.1%, were small firms, which generated 24.0% of Oregon's $21.3 billion in total exports. (Source: ITA)

Small Business Employment by Industry and Self–Employment by County

Table 1: Oregon Employment by Industry, 2017

Industry	Small Business Employment	Total Private Employment	Small Business Employment Share
Accommodation and Food Services	132,202	182,550	72.4
Health Care and Social Assistance	120,773	261,317	46.2
Retail Trade	87,750	207,345	42.3
Manufacturing	84,635	174,693	48.4
Construction	80,218	94,574	84.8
Professional, Scientific, and Technical Services	63,635	93,164	68.3
Other Services (except Public Administration)	59,138	67,755	87.3
Administrative, Support, and Waste Management	50,442	105,483	47.8
Wholesale Trade	44,031	77,547	56.8
Transportation and Warehousing	23,694	58,815	40.3
Real Estate and Rental and Leasing	22,360	29,703	75.3
Educational Services	22,195	37,424	59.3
Arts, Entertainment, and Recreation	21,272	28,306	75.2
Finance and Insurance	21,160	62,100	34.1
Information	15,959	40,096	39.8
Agriculture, Forestry, and Fishing and Hunting	12,068	12,773	94.5
Management of Companies and Enterprises	7,542	53,538	14.1
Utilities	1,166	8,034	14.5
Mining, Quarrying, and Oil and Gas Extraction	835	1,254	66.6
Industries Not Classified	166	166	100.0
Total	**871,241**	**1,596,637**	**54.6**

Figure 4: Oregon Self–Employment Rates by County, 2018



Small Businesses by Industry

Table 2: Oregon Small Businesses by Industry and Firm Size, 2017

Industry	1–19 Employees	1–499 Employees	Nonemployer Firms	Total Small Firms
Professional, Scientific, and Technical Services	10,814	11,633	49,719	61,352
Other Services (except Public Administration)	8,621	9,214	34,640	43,854
Real Estate and Rental and Leasing	4,962	5,229	34,772	40,001
Retail Trade	8,191	9,266	26,468	35,734
Construction	11,833	12,666	21,566	34,232
Health Care and Social Assistance	8,943	10,173	23,816	33,989
Arts, Entertainment, and Recreation	1,526	1,791	22,253	24,044
Administrative, Support, and Waste Management	4,479	5,074	17,910	22,984
Transportation and Warehousing	2,214	2,576	19,301	21,877
Accommodation and Food Services	7,198	9,121	5,114	14,235
Manufacturing	3,826	4,905	7,293	12,198
Educational Services	1,143	1,448	9,273	10,721
Finance and Insurance	2,896	3,160	6,373	9,533
Wholesale Trade	3,073	3,894	4,694	8,588
Agriculture, Forestry, and Fishing and Hunting	1,173	1,329	6,405	7,734
Information	1,098	1,315	5,228	6,543
Utilities	90	114	156	270
Mining, Quarrying, and Oil and Gas Extraction	80	97	146	243
Total	**82,255**	**92,692**	**295,127**	**387,819**

Tables 1 and 2 display data from the 2017 Statistics of U.S. Businesses (SUSB). Table 2 includes additional data from the 2017 Nonemployer Statistics (NES). Figure 4 provides estimates of the rate of self–employment among employed civilians, 16 years and over, including both incorporated and unincorporated businesses, from the 2018 American Community Survey (ACS).

References

The Small Business Profiles, source data, and methodology are available at https://go.usa.gov/xvSPA.

ACS American Community Survey, US Census Bureau
BEA Bureau of Economic Analysis, US Department of Commerce
BDM Business Employment Dynamics, BLS
BLS Bureau of Labor Statistics, US Department of Labor
CES Current Employment Statistics, BLS
CPS Current Population Survey, BLS
FDIC Federal Deposit Insurance Corporation
FFIEC Federal Financial Institutions Examination Council
ITA International Trade Administration, US Department of Commerce
NES Nonemployer Statistics, US Census Bureau
SUSB Statistics of US Businesses, US Census Bureau

February 26, 2021

Via Email: GHGCR2021@deq.state.or.us

Colin McConnaha
Manager, Office of Greenhouse Gas Program
Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232

RE: Cap & Reduce Rule Advisory Committee Meeting, February 17, 2021

Dear Mr. McConnaha,

Food Northwest appreciates the opportunity to provide the following comments on the materials and discussion at the February 17 meeting of the RAC.

Clarify the Impact of Exclusion of Fossil Fuel-Fired Electric Generation

Since fossil fuel-fired electric generators are the largest stationary sources of greenhouse gas emissions, it would be helpful to our discussion in the RAC for DEQ to explain how programs outside of the Climate Protection Program ("CPP") will address electric industry emissions inside Oregon. The electric sector is the second largest source of greenhouse gas emissions and must be accountable for its share of emissions whether it is in the CPP or not. Several members of the RAC have proposed that other sources and sectors covered by the Program should "make up the slack" for sectors that are not part of the Program. This will shift the burden of the electric sector to the other sectors and result in increased fuel costs for businesses and households. Food Northwest opposes such proposals as an inequitable and possibly illegal apportionment of responsibility.

Maximize Program Compliance Flexibility

Food Northwest urges DEQ to maximize compliance flexibility by including all of the mechanisms in the program: broad banking flexibility, broad trading flexibility, alternative compliance instruments, and distribution of compliance instruments based on a technology standard.

There continues to be misunderstandings regarding compliance flexibility mechanisms: (1) That some mechanisms are better for reducing greenhouse gas emissions; (2) That they will provide "wiggle room" for covered entities to avoid reducing greenhouse gas emissions; and (3) That pollution "hotspots" will occur or continue in disadvantaged

communities if offsets are allowed. Some RAC members have proposed that Program flexibility be limited.

Compliance flexibility mechanisms, however, are simply cost-controlling mechanisms. No entity's obligation to reduce greenhouse gas emissions under the CPP will be reduced through use of any of these compliance flexibility mechanisms. The emissions cap will be in place and will reduce over time regardless and total greenhouse gas emissions will be reduced whether instruments are traded, banked or offset. At no point will cumulative allowances ever exceed the number of allowances issued to that point. The compliance flexibility mechanism allows a covered entity to choose which mechanism to use based on its individual needs and the costs, timing, and availability of the mechanisms. However, no mechanism is inherently better at reducing greenhouse gas emissions.

The claim has been made that when covered entities are allowed to purchase compliance instruments to meet their greenhouse gas reduction obligations, onsite greenhouse gas emissions will not be reduced, and environmental justice and impacted communities will be adversely affected. Greenhouse gas emissions are not the problem, but co-pollutants (e.g., NOx, SOx, PM) are. Existing air quality regulations already address these co-pollutants. The new Cleaner Air Oregon program was specifically designed to focus on localized health risks. Certainly, there can be co-benefits through reducing greenhouse gas emissions, but DEQ risks diluting its climate change efforts by attempting to control these other types of pollutants through carbon regulation. Synergies can be accounted for, but the regulation of other than greenhouse gases should remain with existing air quality programs.

Since no revenues can be realized by DEQ through the CPP, alternative compliance (offsets) is a way that it can focus efforts to benefit environmental justice and impacted communities. Forestry and agricultural offset protocols have been developed by a number of standards organizations and such offsets are available on existing registries, although likely very limited in availability for Oregon projects. These could be developed. Other projects that benefit environmental justice and impacted communities could also be developed. Like other offset projects, these would need to reduce greenhouse gas emissions, be permanent reductions, and be additional to mandates required by other regulations.

It is unlikely that sufficient flexibility instruments, other than perhaps purchase through an existing exchange, will be available during the first couple of compliance periods. Oregon offsets will take several years to develop as well as banked allowances and, given the relatively small pool of CPP covered entities, trading among CPP entities will be limited. This points to the need for inclusion of other cost containment measures as well in the CPP.

Address EITEs: Design the Program to Contain Costs and Avoid Leakage

Cost containment and the potential for leakage must be addressed for Energy Intense and Trade Exposed (EITE) companies. The cost impacts and leakage potential of the policy scenarios on regulated sectors need to be provided by the modeling analysis so that the CPP can address cost containment and prevent leakage. Energy costs are certain to increase under the CPP. In response to HB 2020 cap and trade bill, the Northwest Gas Association provided estimates of natural gas customer rate impacts (*HB 2020 Oregon Cap and Trade Fact Sheet*). Commercial customer rate increases over 2021 to 2035 ranged from 13% to 56%. Industrial rates are typically higher. Transportation fuels and other fuel cost can be expected to increase as well.

A key component of competitiveness for EITEs is the cost of production and energy is a significant production input. The CPP could increase the cost of making food in Oregon by an industry that is already operating on some of the thinnest margins of any business sector. Oregon food companies face significant competition from imported food products as well as domestic food products from areas of the U.S. that lack strict environmental regulations like those in Oregon.

Food is very price sensitive. In fact, a contract can be lost by a mere 1/2-cent per pound increase in price. If we can't prepare food at a competitive price with other states or countries, then grocers, restaurants and other customers will obtain food from somewhere else that is cheaper.

If we can't compete, we will have to make cuts in production and jobs or may cease production in Oregon altogether. Leakage of production to Idaho is a real risk for our potato companies and other Oregon food processors as many have facilities in Idaho. Idaho also grows great potatoes and there is little chance of carbon pricing.

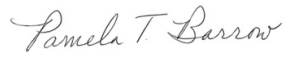
Oregon's rural communities will be particularly impacted by the loss of food companies or loss of production at food companies. Agriculture is a critical industry in rural areas and food processing is an essential partner. Food companies are major employers and support related businesses and community infrastructure in these rural locales.

Include cost containment elements

Cost containment mechanisms such as compliance instrument reserves, price ceilings for compliance instruments, and off-ramps should be included. Additionally, measures should be included to provide rate relief for residential, commercial and industrial customers of natural gas utilities. Industrial customers will be particularly impacted by natural gas price increases due to natural gas utility CPP compliance. Rate caps, rebates or grants for emissions reduction projects could be provided to EITEs as a means to contain costs and prevent leakage. Affordable natural gas and transportation fuel prices are critical for food processors and other EITEs to remain competitive in national and global markets. Without protective mechanisms, energy cost increases could drive production, jobs, and emissions to other jurisdictions.

Food Northwest appreciates the opportunity to provide comments on RAC Meeting #2. We look forward to continuing to work with DEQ and the RAC to shape a CPP that meets the three goals and is good for Oregon's economy, environment and its citizens. Please contact me if you have any questions.

Sincerely,



Pamela Barrow
Vice President

2/26/2021

For: Oregon Department of Environmental Quality:

Climate Protection Program/Rulemaking Advisory Committee Mtg #2

GHGCR2021@deq.state.or.us

From Dr. Gabrielle Roesch-McNally

I am writing to you as a National Climate Assessment author and sociologist who has worked in the agriculture and food systems world on climate change and equity issues for over a decade. I am also a concerned Oregonian. As a social scientist who works in the climate world I recognize the pressing need to respond to the risks of climate change and want to urge the Department of Environmental Quality to listen to the guidance of the scientific community. Governor Brown's Executive Order 20-04 recognized this urgency when it established a goal of 80 percent emission reductions by 2050. Oregon's Climate Protection Program must – at a minimum – match that commitment and should aim to reduce emissions at a trajectory consistent with a national path to net zero by 2050.

The importance of frontloading these reductions in the next decade is critical. DEQ must commit to EO 20-04's interim goal of 45 percent emission reduction by 2035 and should develop a regulation that ensures deep reductions in the next decade. The science is clear, anything less puts us on a dangerous path to a 2-degree Celsius increase in global temperature which the IPCC tells us would be catastrophic.

The time for bold climate action is now. Oregon is already experiencing the consequences of climate disruption. We experience the harrowing and heartbreaking impact of millions of acres of land burned and we have seen sea levels rise by 2-4 inches since the 1980s[1]. And climate models project average annual temperatures will rise by 5°F to 8.5°F in the Pacific Northwest if we continue to emit greenhouse gases unchecked[2]. We need bold solutions and collaborative efforts to work at the state-level to address the causes of climate change to reduce risks associated with a future plagued by extreme heat, severe flooding, and the displacement of thousands of Oregonians from their homes. I urge DEQ and the RAC members to follow the science and establish an ambitious Climate Protection Program in Oregon.

Thank you.

[1] National Oceanic and Atmospheric Administration (NOAA). No date. Level trends. Online at https://tidesandcurrents.noaa.gov/sltrends, accessed December 13, 2018.

[2] Vose, R.S., D.R. Easterling, K.E. Kunkel, A.N. LeGrande, and M.F. Wehner. 2017. Temperature changes in the United States. In Climate science special report: Fourth National Climate Assessment, volume I, edited by D.J. Wuebbles, D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock. Washington, DC: US Global Change Research Program. Online at http://doi.org/10.7930/J0N29V45

Sincerely,

Gabrielle Roesch-McNally, PhD

500 Women Scientists Member

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March 1, 2021

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

Re: Comments on Climate Protection Program Rulemaking Advisory Committee Meeting No. 2 on Flexibility Mechanisms and Point-of-Regulation

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. We greatly appreciate the opportunity to participate in the Rulemaking Advisory Committee (RAC) for the Department of Environmental Quality's (DEQ) Climate Protection Program, and respectfully submit these comments on issues relating to flexibility mechanisms and appropriate points of regulation under the program.

To achieve the science-backed reductions in greenhouse gas (GHG) emissions called for under Oregon law and Governor Brown's Executive Order 20-04, Oregon must make swift and steady progress to decarbonize the vast majority of its economy by 2050. The Climate Protection Program can help drive the state's progress in achieving its climate goals by decreasing fossil fuel consumption and spurring investments in emissions-free technologies and infrastructure. The four flexibility mechanisms discussed in the second RAC meeting—compliance instrument banking, compliance instrument trading, alternative compliance options, and multi-year compliance periods—each have the potential to support the program's goals of reducing GHG emissions while promoting equity and containing costs. However, if the program provides regulated entities with too much compliance flexibility, these mechanisms could also delay or deter essential decarbonization efforts and investments. It is therefore imperative that the program balances the desire to provide flexibility with the need to maintain progress in reducing emissions and advancing an equitable transition to a decarbonized economy.

Flexibility mechanisms can help support the program's objectives by enabling regulated entities to make adjustments to their compliance activities in response to uncertainty or variability outside of their control. Mechanisms like compliance instrument banking and trading may encourage regulated entities to proactively reduce emissions more quickly than necessary to ease future compliance obligations or offset compliance costs. Multi-year compliance periods could

give regulated entities the flexibility to adjust the pace of their emissions reductions from year to year in response to fluctuating market dynamics. However, the flexibility mechanisms' capacity to mitigate risk and address uncertainty is largely dependent on regulated entities engaging in rational and responsible decision-making. If regulated entities instead use the flexibility mechanisms to avoid or delay compliance efforts or investments, it could undermine the program's potential to achieve equitable and economical emissions reductions. This outcome would expose the general public and impacted communities in particular to substantial risk and uncertainty. In designing flexibility mechanisms, DEQ should therefore strive to balance and mitigate risk and uncertainty for regulated entities, impacted communities, and the general public, and should avoid establishing mechanisms that could diminish or undermine the program's effectiveness. Above all, any mechanisms that aim to control costs and/or increase flexibility for regulated entities must conform to a pathway that will enable Oregon to achieve its statewide climate targets.

Our comments respond to the specific discussion questions raised during the Climate Protection Program's second RAC meeting. Part I responds to DEQ's discussion question regarding the flexibility mechanisms' potential to effectively achieve the program's goals to reduce emissions, contain costs, and support equity. Part II discusses approaches for structuring alternative compliance options (ACOs) to drive investments that reduce emissions while benefiting impacted communities. Part III describes some of the implications of establishing multi-year compliance periods (MYCPs). Part IV responds to DEQ's discussion question regarding appropriate point of regulation for emissions from direct natural gas use.

I. Flexibility Mechanism Potential to Support Emissions Reductions, Contain Costs, and Achieve Equitable Outcomes

Discussion Question 1: *Which flexibility mechanism(s) do you find the most effective for supporting emissions reductions, containing costs, and equitable outcomes? Which do you find the least effective in achieving these goals? Why?*

The flexibility mechanisms proposed by DEQ—compliance instrument banking and trading, alternative compliance options, and multi-year compliance periods—have varying and potentially significant implications for reducing emissions, containing costs, and promoting equitable outcomes under the program. The following subsections focus on the program's three primary objectives to reduce emissions, contain costs, and promote equity, and discuss how the various flexibility mechanisms may impact these three objectives.

A. Reducing Emissions

Alone, the flexibility mechanisms are unlikely to have a meaningful impact on the emissions reduction potential of the program. These mechanisms will generally only provide emissions benefits if DEQ and the EQC establish ambitious emissions caps for the program. Some of the flexibility mechanisms could potentially help incentivize early emissions reductions, though outside variables and market dynamics could impact this outcome. At the same time, too much compliance flexibility could impede emissions reductions, particularly if there is an abundance

of low-cost compliance instruments available for purchase. The following subsections discuss some of the emissions reductions implications of banking, trading, alternative compliance options, and multi-year compliance periods.

1. Banking and Emissions Reductions

Over the lifetime of the program, compliance instrument banking likely will not result in emissions reductions beyond those required under the cap. However, banking could encourage some regulated entities to maximize emissions reductions in the early years of the program to offset their compliance obligations in later compliance periods. From a climate standpoint, early emissions reductions are preferable to later emissions reductions, so banking could potentially provide net benefits to the state if it effectively incentivizes early action.

However, banking—and particularly banking provisions that allow regulated entities to bank an unlimited number of compliance instruments for an indefinite amount of time—would also make the program vulnerable to error and uncertainty. If DEQ over-allocates compliance instruments to any regulated entities, or if a regulated entity reduces its emissions in response to external factors outside of the source's control, such as unexpected weather conditions or an economic disruption, those entities could bank their excess compliance instruments and delay making actual emissions reductions in later compliance periods. Banking therefore carries a significant risk of deterring emissions reductions in later compliance periods, when the impacts of climate change are more severe.

If unlimited banking is permitted to protect regulated entities from uncertainties, the program should not include additional cost containment mechanisms to protect regulated entities if unexpected events occur. If regulated entities know that additional compliance forgiveness is available if compliance costs exceed a certain threshold, unlimited banking could serve to negate the need for future emissions reductions without meaningfully incentivizing early reductions.

We also encourage DEQ to consider establishing limits on banking that would be triggered under certain circumestances. For example, DEQ should consider creating an automatic adjustment mechanism that would trigger banking restrictions if there is a substantial over-allocation of compliance instruments, or if external market dynamics or unexpected weather conditions cause emissions to signficantly decrease during a compliance period. If these threshold conditions occur, the program could automatically impose limits on the number of compliance instruments entities may bank and/or assign expiration dates for any instruments banked during the compliance period.[1] DEQ should also consider prohibiting the banking of compliance instruments received through over-allocation by the agency, particularly if the over-allocation was influenced by inaccurate baseline emissions data.[2] Finally, we want to reiterate a

[1] We previously made this recommendation in our comments on the program's illustrative scenarios. Green Energy Institute Comments on Cap and Reduce Illustrative Scenarios at 5–6, Dec. 9, 2020, *available at* https://law.lclark.edu/live/files/31435-c-and-r-illustrative-scenarios-gei-comments.

[2] Green Energy Institute Comments on Cap and Reduce Technical Workshop 5: Cost Containment, Oct. 2, 2020, *available at* https://law.lclark.edu/live/files/31437-c-and-r-cost-containment-gei-comments.

recommendation we raised in previous comments and encourage the program rules to clearly specify that compliance instruments are not property rights.[3]

2. Trading and Emissions Reductions

Similarly to banking, trading will likely not result in additional emissions reductions over the lifetime of the program, but could potentially encourage near-term reductions by sources that cost effectively reduce emissions in early compliance periods. However, trading could also make the program vulnerable to over-allocations or over-abundances of compliance instruments resulting from external pressures. But while banking could potentially compromise the integrity of the program in future compliance periods, unrestricted trading could deter emissions reductions at any time. As the supply of marketable compliance instruments increases, the price for those instruments will decrease. If it is more economical to purchase compliance instruments than it is to deploy emissions reduction technologies or practices, regulated entities will choose trading over physical compliance. Trading could therefore deter or delay investments in technologies or efficiencies that would otherwise reduce emissions.

To discourage regulated entities from delaying investments, DEQ should consider limiting the number of purchased compliance instruments entities may use during a compliance period. Alternatively, DEQ could consider establishing an automatic adjustment mechanism that imposes restrictions on trading if the supply of compliance instruments available for purchase exceeds a certain threshold.[4]

3. Alternative Compliance Options and Emissions Reductions

Compliance activities that achieve real, measurable, verifiable, additional, and permanent reductions in anthropogenic GHG emissions will provide the greatest long-term emissions reductions benefits under the program. Alternative compliance options (ACOs) could further the emissions reduction potential of the program by providing a mechanism for regulated entities to invest in emissions reduction programs, projects, and technologies that reduce fossil fuel reliance and consumption at the consumer level. Unlike the other flexibility mechanism, ACOs could potentially drive emissions reductions beyond those required under the cap by increasing consumer demand for zero-emissions vehicles and appliances.

A large and growing portion of Oregon's GHG emissions are produced by decentralized sources—internal combustion engine (ICE) vehicles and other fossil fueled modes of transportation, and homes and businesses with natural gas-fired heating and cooking systems—that will only be effectively reduced through consumer action. To reach our 2050 climate targets, Oregonians will need to transition to zero-emissions vehicles and replace gas-fired furnaces and stoves with efficient electric alternatives. By regulating GHG emissions from transportation fuel and natural gas suppliers, the Climate Protection Program can help build momentum to drive

[3] This clarification would prevent regulated entities from bringing taking challenges against the Department if restrictions are imposed on banking in the future. *See id.* at 4.

[4] We previously made this recommendation in our comments on the program's illustrative scenarios. Green Energy Institute Comments on Cap and Reduce Illustrative Scenarios at 5–6, Dec. 9, 2020, *available at* https://law.lclark.edu/live/files/31435-c-and-r-illustrative-scenarios-gei-comments.

these transitions, but the fuel and gas suppliers will ultimately be responsible for determining how and where emissions get reduced. ACOs provide a mechanism for incentivizing regulated entities to invest in programs and projects that help consumers transition to zero-emissions technologies and infrastructure. Strategic ACO investments also have the potential to produce emissions reductions beyond the scope of the projects themselves by helping create economies of scale for zero-emissions vehicles and appliances and influencing consumer purchasing decisions by normalizing new and unfamiliar technologies.

To achieve the program's equity objectives, ACOs should prioritize projects that measurably reduce emissions of GHGs and provide equitable benefits, such as reductions in co-pollutant emissions, reduced exposure to energy-related cost volatility, or increased employment and job training opportunities, in impacted communities within the state.[5] This limited geographic scope will ensure that Oregon's historically underserved, disadvantaged, and disproportionately vulnerable communities and communities of color benefit from investments in alternative compliance projects and experience improvements in local air quality. If ACOs are subject to those criteria and Oregon-specific eligibility parameters, they could have a meaningful impact on in-state emissions while providing valuable co-benefits for impacted communities.

If, however, regulated entities have the option of purchasing biogenic carbon offset credits as a means of alternative compliance under the program, the integrity of the cap would be put in jeopardy. As we emphasized in our previous comments on DEQ's technical workshop on alternative compliance, biogenic carbon offsets from forestry and land use sequestration projects enable fossil fuel emissions to continue at unabated rates without providing any guarantee that those emissions will be accurately and permanently offset by sequestered carbon.[6] To ensure that the program can and will achieve necessary reductions in anthropogenic emissions, the program should prohibit the use of biogenic carbon offsets for compliance purposes.

4. Multi-Year Compliance Periods and Emissions Reductions

Like banking and trading, multi-year compliance periods (MYCPs) will not likely achieve additional emissions reductions beyond those mandated under the cap. MYCPs could potentially enable some regulated entities to deploy emissions reduction technologies or projects that would be challenging to implement during a single compliance year, such as projects that have extended permitting and development timelines. However, MYCPs assume that most regulated entities will be proactive in their compliance efforts, which may not prove to be the case. Instead, there is a significant risk that MYCPs could encourage regulated entities to take a "wait-and-see" approach to emissions reductions and defer making investments in new technologies in the hope that cheap compliance instruments will be available for purchase in later years of the compliance period. If compliance instruments are not available for purchase, some sources may be unable to meet their compliance obligations. If many regulated entities choose to procrastinate and fail to reduce emissions in the early years of a compliance period, there is a risk that aggregate

[5] The equity benefits and opportunities associated with alternative compliance options are discussed in greater detail in section I.C.3 of these comments.

[6] Green Energy Institute Comments on Cap and Reduce Technical Workshop 3: Alternative Compliance Options, Sept. 10, 2020, *available at* https://law.lclark.edu/live/files/31438-c-and-r-alternative-compliance-option-gei-comments.

emissions could exceed the program cap. If this occurs, we would lose the benefits from any early emissions reductions.

To ensure that sources stay on track to meet their compliance obligations over MYCPs, sources should be required to demonstrate that they can meet a portion of their compliance obligations each year. Moreover, if the program has MYCPs, DEQ should not create any additional mechanisms to provide compliance relief to regulated entities that are unable to achieve their multi-year obligations through direct emissions reductions or compliance instrument trading. In general, compliance periods must be short enough to incentivize early emissions reductions and quickly address and correct noncompliance by any regulated sources or sectors.

B. Cost Containment

The proposed flexibility mechanisms could potentially help contain compliance costs resulting from uncertain events or variables under the program, particularly if regulated entities act rationally and proactively to reduce their risk exposure through early actions and investments. However, as we noted in our introduction, these mechanisms will only achieve their desired effects if they are the *only* cost containment mechanisms available to regulated sources. If additional compliance relief is available to safeguard regulated entities from potential financial impacts, the flexibility mechanisms could actually deter regulated entities from making investments in systems or technologies that would otherwise help further the program's equity and emissions reductions goals. As an overarching principle, the program should prioritize mitigating cost burdens on impacted communities, and impose additional restrictions on flexibility mechanisms that function to reduce compliance costs for regulated entities while increasing risks for impacted communities.

The following subsections discuss some of the cost contaiment implications of banking, trading, alternative compliance options, and multi-year compliance periods.

1. Banking and Cost Containment

Banking has the potential to encourage early and economical emissions reductions by rewarding regulated entities that go beyond their initial compliance obligations. However, banking also has the potential to create economic windfalls for regulated entities that experience reductions in emissions due to external pressures or variables, particularly if those variables only impact specific industries or sectors. For example, unexpectedly mild winter temperatures could lead to reductions in natural gas emissions, leaving gas utilities with an excess of bankable compliance instruments. These banked instruments would then offset some of the utilities' future compliance obligations, which in turn could discourage investments in zero-emissions technologies, such as electric heat pumps in impacted low-income communities. Under this scenario, unlimited banking could expose impacted communities to rising fuel costs and increase rather than mitigate the economic burdens resulting from the energy transition.

To help contain costs for impacted communities in addition to containing compliance costs for regulated entities, DEQ should seriously consider establishing limits on banking or creating an

automatic adjustment mechanism that would restrict regulated entities from banking compliance instruments if the program fails to achieve equity-related milestones.

2. Trading and Cost Containment

Trading may have the greatest potential to help contain costs in the program's early compliance periods by incentivizing regulated entities to maximize cost-effective emissions reductions. However, trading will likely encourage entities to pick the lowest-hanging fruit first and pursue strategies that can reduce emissions quickly, cheaply, and easily. From a climate standpoint, this isn't necessarily a bad outcome, because early emissions reductions will provide greater climate benefits than later reductions. But from a cost containment standpoint, it could make it more costly and challenging for regulated entities to reduce emissions in later compliance periods when compliance obligations will be more stringent.

3. Alternative Compliance Options and Cost Containment

With supporting co-benefit eligibility criteria, alternative compliance options have the greatest potential to help contain costs for impacted communities that already face disproportionate energy burdens and are most vulnerable to cost increases associated with the energy transition. As the cap lowers over time, the cost of fossil fuels—and thus the cost of operating vehicles and appliances powered by fossil fuels—will almost certainly rise. Households that transition to electric vehicles and heating systems will be less impacted by the rising cost of gasoline and natural gas, while households that are unable to switch to electric technologies could experience significant financial hardships. ACOs have the potential to mitigate these financial burdens in impacted low-income communities by incentivizing regulated entities to invest in projects that reduce communities' dependence on fossil fuels.

4. Multi-Year Compliance Periods and Cost Containment

The cost containment potential of MYCPs will depend on the actions and behaviors of regulated entities. If a majority of entities choose to delay making investments in emissions reduction strategies in early years in the hope that low-cost compliance instruments will be available for purchase in later years, the surge in demand would likely cause compliance instrument prices to rise, driving up compliance costs for many regulated entities. Alternatively, if there is an abundance of compliance instruments available for purchase in early compliance years, it may be more economical for regulated entities to purchase compliance instruments rather than reduce their physical emissions in later compliance years. Under this scenario, MYCPs could help contain compliance costs in early periods, but could also contribute to cost escalations in later periods as compliance obligations increase and there are fewer compliance instruments available for purchase. In general, MYCPs will be more vulnerable to market speculation than single-year compliance periods, so cost impacts could vary dramatically between different compliance periods.

C. Equitable Outcomes

In general, the flexibility mechanisms will only support the program's equity goals if they effectively incentivize investments in zero-emissions infrastructure and technologies and help advance an equitable energy transition that disproportionately benefits—rather than burdens—impacted environmental justice, BIPOC, and low-income communities across Oregon. Each of the flexibility mechanisms proposed by DEQ have the potential to either advance or impede equitable outcomes under the program. Overall, alternative compliance options have the greatest potential to provide equity benefits, while unrestricted banking and trading of compliance instruments present the most significant equity risks. The following subsections discuss some of the equity implications of banking, trading, alternative compliance options, and multi-year compliance periods.

1. Banking and Equity

Banking has the potential to provide equity benefits under the program, but there are also significant risks that unlimited banking could deter investments in projects or programs that would otherwise benefit impacted EJ communities. Banking enables regulated entities to stockpile compliance instruments for use in later compliance periods, which effectively reduces entities' compliance obligations in future years. If regulated entities generate large quantities of bankable compliance instruments through activities that do *not* provide direct equity benefits for impacted communities (such as investments in new infrastructure or reductions in transportation emissions), those banked instruments will reduce or negate the need to invest in equity-centered emissions reductions in future compliance periods. These equity impacts would be even more pronounced if emissions drop as a result of external events or circumstances, such as an economic recession.

To preserve the incentive to invest in emissions reductions that provide equitable co-benefits in impacted communities, DEQ should consider imposing some limits on banking. For example, the program could impose limits on the number or percentage of compliance instruments regulated entities can bank and/or use in any individual compliance periods. The program could allow unlimited banking of compliance instruments generated through equity-focused emissions reductions, while imposing restrictions on the banking, use, and/or lifespan of other compliance instruments.

2. Trading and Equity

Out of all the flexibility mechanisms proposed by DEQ, compliance instrument trading has the most potential to impede the program's equity objectives by enabling regulated entities to purchase emissions reductions from other sources, rather than physically reduce emissions from their operations or fossil fuel sales. In comparison to Oregon's other GHG-emitting sectors, emissions from the transportation sector present the greatest threat to public health. Emissions from on-road and nonroad mobile sources disproportionately harm environmental justice communities located near highways, ports, rail yards, and other "indirect sources" of air pollution, such as warehouses, freight terminals, and industrial facilities, that operate or attract large numbers of fossil fuel-powered vehicles and engines. By capping and reducing emissions

from transportation fuels on a statewide level, the Climate Protection Program will help reduce harmful co-pollutant emissions of fine particulate matter and other air toxics in EJ communities. However, unrestricted trading of compliance instruments could lose these equity benefits if transportation fuel suppliers choose to purchase compliance instruments instead of pursuing other strategies to reduce gasoline and diesel use across the state.

To promote compliance investments that provide equity benefits in addition to emissions reductions, DEQ should consider imposing some restrictions on compliance instrument trading. For example, if the program limits the number of purchased compliance instruments entities may use to demonstrate compliance or bank for future use, regulated entities will have added incentive to directly reduce emissions or invest in projects that reduce emissions while providing additional equity benefits in impacted communities.

3. Alternative Compliance Options and Equity

ACOs have the greatest potential to provide equitable benefits while also reducing anthropogenic emissions from fossil fuel consumption in Oregon. As we noted in our previous comments on DEQ's cap and reduce program technical workshop on alternative compliance options, a strategically designed, community-driven alternative compliance mechanism could spur investment in just and equitable emissions reduction projects in Oregon's impacted frontline and environmental justice communities.[7]

If ACOs are not permitted under the program, there is a legitimate risk that regulated transportation fuel and natural gas suppliers will increase fuel costs as a means of reducing demand for their products and pass on their compliance costs to consumers. These cost increases would be most pronounced for consumers that remain reliant on fossil fuels, which would disproportionately burden low-income households and individuals that have limited resources to invest in zero-emissions vehicles and appliances. Rising energy costs would make it even more challenging for historically disadvantaged communities to transition to carbon-free technologies.

Under traditional cap-and-trade models, program administrators can raise public revenue from the sale of emissions allowances and then reinvest the revenue into projects and programs that mitigate economic impacts and provide additional benefits in impacted communities.[8] In Oregon, however, state law limits the EQC's authority to raise revenue from air quality programs, which means that the Climate Protection Program has limited potential to raise public funds for emissions reduction projects in impacted environmental justice, BIPOC, and low-income communities.

A well-designed ACO mechanism could help alleviate the program's revenue-raising limitations by incentivizing regulated entities to invest in projects that reduce fossil fuel emissions in impacted communities and help advance a just and equitable energy transition in Oregon. To

[7] Green Energy Institute Comments on Cap and Reduce Technical Workshop 3: Alternative Compliance Options, Sept. 10, 2020, *available at* https://law.lclark.edu/live/files/31438-c-and-r-alternative-compliance-option-gei-comments.

[8] For example, California's cap and trade program has raised billions of dollars to fund emissions reduction projects in environment justice and low-income communities. California Climate Investments, *Cap-and-Trade Dollars at Work,* http://www.caclimateinvestments.ca.gov.

maximize equitable social, economic, and environmental benefits, the ACO mechanism should prioritize investments in projects that accelerate the transition away from fossil fuels in impacted communities and/or provide meaningful and measurable co-benefits in impacted communities, such as reductions in harmful air pollution or increased employment or job training opportunities.

For example, ACO investments could help fund the replacement of fossil fuel vehicles with comparable zero-emissions models, or fund the installation of energy-efficient electric heat pumps in residences in impacted communities. By establishing a strong preference for projects that help impacted communities transition away from fossil fuel-dependent technologies, the ACO mechanism would mitigate risks related to future energy burdens and help ensure that disadvantaged communities at the frontline of the climate crisis are not left behind as Oregon decarbonizes its economy.

4. Multi-Year Compliance Periods and Equity

MYCPs could potentially further the program's equity goals if regulated entities are proactive and use the entirety of the compliance period to deploy infrastructure that has longer development lead times, such as EV charging infrastructure or renewable energy systems. However, MYCPs could also deter equitable outcomes if regulated entities delay making investments in emissions reduction technologies and encounter high compliance costs in later compliance years. Regulated entities should be required to meet a portion of their compliance obligations on an annual basis to encourage early and proactive emissions reductions and reduce exposure to cost volatility in later compliance years.

II. Structuring Alternative Compliance Options to Drive Investments that Benefit Impacted Communities

Discussion Question 2: *What are your thoughts on whether/how the program could include structuring alternative compliance options to drive investments that reduce greenhouse gases in ways that most benefit Oregon's impacted communities?*

As we noted in sections I.A.3, I.B.3, and I.C.3 of these comments and in our previous comments on alternative compliance mechanisms, ACOs present a valuable opportunity to mitigate some of the equity impacts that could occur under the program and help historically disadvantaged groups and impacted communities transition to zero-emissions technologies. To ensure that ACO programs and projects meet the specific and unique needs of Oregon's diverse impacted communities, local communities should have opportunities and authority to inform and influence decisions regarding the types of projects that are eligible for ACO funding within their communities. Section II.A describes two approaches for administering community-driven ACO programs.

ACOs can help influence *how* regulated entities achieve their emissions reductions—and help ensure that emissions are reduced in an equitable manner that minimizes harms to impacted groups and communities. However, DEQ must also strive to minimize the disparate and inequitable impacts of climate change on impacted communities, so it is imperative that ACOs

are structured to ensure compliance with the cap. In other words, ACOs should not simply act as a flexible accounting mechanism that enables regulated entities to avoid making actual emissions reductions or cancel out emissions increases in other areas. Section II.B briefly describes some of the accounting risks relating to ACOs and offers some suggestions for how the program could be structured to incentivize ACO investments while maintaining the integrity of the emissions cap.

A. Community Input and Oversight

ACO eligibility should be limited to programs and projects that achieve real, measurable, verifiable, additional, and permanent reductions in anthropogenic GHG emissions, and the program should give special preference to ACO programs and projects that meet these criteria while also providing meaningful equity benefits in impacted communities. However, neither DEQ nor the regulated entities making ACO investments possess sufficient knowledge and perspective to adequately determine which kinds of projects will provide the greatest benefits within specific communities. Instead, these determinations should be made at the community level. The people who live and work in impacted communities should have an opportunity to provide input on their communities' specific priorities and needs and determine the types of ACO projects that will provide the greatest benefits within their communities.[9]

In our previous comments on technical workshop 3, we encouraged DEQ to consider allowing Community Emissions Reduction Credit Banks, which are authorized under existing law, to certify, bank, and distribute alternative compliance instruments under the program.[10] This approach would give local county governments oversight authority over ACO programs and projects, and could potentially provide local governments with a mechanism for raising revenues to fund public ACO projects. This approach may be particularly appealing in rural counties with low population densities, where local communities may lack the capacity or resources to administer an ACO program. However, impacted community members must have an opportunity to inform and influence ACO investment decisions.

As an alternative or addition to the Community Emissions Reduction Credit Bank approach, the program could potentially designate a specific non-governmental organization (NGO) to administer an ACO program at the statewide level.[11] Under this approach, the NGO could be responsible for accepting and administering alternative compliance investments from regulated entities, and could be required to collaborate with local communities to identify and develop local ACO projects. This approach would be most effective if the NGO is created for the specific purpose of administering the ACO program, and is governed by a diverse and engaged board of directors.

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[9] In this context, "impacted communities" should include frontline communities that face disproportionate risks from climate change and/or from the transition to a decarbonized economy, as well as historically disadvantaged environmental justice, BIPOC, and low-income communities in urban or rural areas.

[10] Community Emissions Reduction Credit Banks are currently authorized under ORS § 468A.820. *See* Green Energy Institute Comments on Cap and Reduce Technical Workshop 3: Alternative Compliance Options, Sept. 10, 2020, *available at* https://law.lclark.edu/live/files/31438-c-and-r-alternative-compliance-option-gei-comments.

[11] Before selecting this approach, the agency should conduct a thorough legal analysis to determine whether there are any legal restrictions on the types of functions or authority the EQC may delegate to a non-governmental organization.

B. Addressing Double-Counting Risks

Depending on how emissions reductions from alternative compliance investments are accounted for under the program, there are legitimate concerns that ACOs could result in the double-counting of emissions reductions, which could have the effect of raising total emissions above the cap. For example, if a transportation fuel supplier could earn an alternative compliance credit for replacing internal combustion vehicles with EVs, the fuel supplier could increase its available compliance instruments while simultaneously decreasing its compliance obligations.[12] This would enable the fuel supplier to increase its emissions and still meet its compliance obligations, effectively offsetting the emissions reductions from the alternative compliance project. This outcome would undermine the integrity of the cap.

To address this double-counting dillema, DEQ could treat alternative compliance as a form of compliance, rather than a means of creating additional compliance instruments. For example, if a regulated entity reduced emissions through an alternative compliance project, those emissions reductions could be credited to the entity, but the entity would not receive additional compliance instruments to represent those emissions reductions.[13] This approach would avoid the double-counting problem by simply crediting regulated entities with the emissions reductions they achieve, regardless of how they achieve them. However, it could also fail to incentivize regulated entities from investing in alternative compliance projects, particularly if it is less costly to purchase compliance instruments through the market.

There are several potential design options that have the potential to mitigate the double-counting risk while maintaining the incentive to invest in projects that reduce emissions and provide equitable co-benefits in impacted communities. One option would be to withhold a percentage of available compliance instruments in a reserve account, and distribute these instruments to regulated entities that make verified investments in eligible ACO programs or projects. This approach would give DEQ additional control over the level of compliance achieved through alternative investments.

Another option would be to issue alternative compliance instruments that carry additional value over conventional compliance instruments, but require regulated entities to surrender a conventional compliance instrument for every alternative compliance instrument they receive.[14] To create the additional value necessary under this approach, the program would likely need to impose some additional restrictions on the other flexibility mechanisms. For example, the program could restrict the number of compliance instruments a source may hold in the bank, but exempt alternative compliance instruments from this limit. Similarly, the program could limit the

[12] In a very simplistic hypothetical example, imagine the fuel supplier's emissions equaled 100 tons, but the supplier only had 99 compliance instruments. If the fuel supplier's investment in EVs reduced emissions by one ton (thereby creating one alternative compliance instrument), the fuel supplier's emissions would drop to 99 tons, but its available compliance instruments would increase to 100 (99 conventional instruments and one alternative instrument).

[13] Continuing from the hypothetical example from note 12, the fuel supplier's emissions would drop to 99 tons and its compliance instrument balance would remain at 99 instruments.

[14] Rather than view this as a form of "alternative" compliance, it may be helpful to view this model as a form of "compliance-plus" (with the "plus" representing equitable co-benefits).

number of traded compliance instruments a source could use towards its compliance obligations, but exempt alternative compliance instruments from this limit.

A third approach would be to apply a temporal benefit to alternative compliance instruments. For example, if a regulated entity's emissions exceed its compliance instrument supply, the regulated entity could achieve compliance by investing in an eligible alternative compliance program or project. Under this approach, the regulated entity's emissions would exceed its compliance obligations for the compliance period in which the ACO investment was made, and total emissions under the program could potentially exceed the program cap if the ACO investments do not yield comparable emissions reductions during the compliance period. To address this issue, DEQ should adjust the program's compliance instrument allocations in subsequent compliance periods to account for any excess emissions and preserve the integrity of the cap.

III. Multi-Year Compliance Periods

This Part responds to DEQ's discussion questions on multi-year compliance periods. Section III.A discusses alternative compliance period durations, and section III.B discusses the implications of creating an extended initial compliance period.

A. Compliance Period Durations

Discussion Question 3: *Other than a three-year multi-year compliance period, what other compliance period lengths might be considered? Why?*

Shorter compliance periods are generally preferable to longer compliance periods because they would deter regulated entities from taking a wait-and-see approach to compliance. DEQ should explore whether one-year or two-year compliance periods would be feasible if other flexibility mechanisms are available to help regulated entities respond to uncertainties. While some regulated entities may be proactive in reducing emissions in the early years of a MYCP, other entities will likely procrastinate and delay investing in emissions reductions in early years. This strategy could concentrate necessary emissions reductions into later years of the compliance period, which could threaten the integrity of the program if entities are unable to physically reduce multiple years of emissions or purchase a sufficient number compliance instruments to come into compliance in a single year. The program should therefore not extend any compliance periods beyond three years, because the potential non-compliance risks would outweigh the flexibility benefits associated with this strategy.

If the program includes two-year or three-year compliance periods, regulated entities should be required to demonstrate that they are able to meet a portion of their compliance obligations for each year of the compliance period. As we noted in section I, compliance periods must have short enough durations to incentivize early emissions reductions and enable the agency to quickly address and enforce noncompliance by any regulated sources or sectors.

B. Extending the Initial Compliance Period

Discussion Question 4: *What are your thoughts on having a relatively longer compliance period for the program's first compliance period, but shorter ones in the future?*

There are both risks and benefits to setting a longer initial compliance period and shorter subsequent compliance periods. On the one hand, a longer initial compliance period could help regulated entities respond to uncertainties that could emerge in the initial years of the program. On the other hand, a longer initial compliance period could also encourage regulated entities to take a wait-and-see approach that delays investments in early emissions reductions. This risk would be more pronounced if DEQ over-estimates source or sector baseline emissions and/or over-allocates compliance instruments. If low-cost compliance instruments are available for purchase, regulated entities would be more likely to delay making investments in emissions reducing technologies or practices. A longer initial compliance period would therefore only help achieve the program's objectives if DEQ accurately calculates baseline emissions *and* sets an ambitious program cap.

IV. Point of Regulation

Discussion Question 5: *What are your thoughts on benefits of regulating all natural at natural gas utilities? Do you see any additional benefit to regulating natural gas for large stationary sources at the source, instead of the utility?*

While it is imperative that the program regulates GHG emissions from industrial processes at the source level, it likely makes the most sense to regulate direct-use natural gas emissions at the supplier level rather than regulate on-site gas consumption by large industrial sources. There would be some benefits from regulating natural gas emissions at the source level; for example, industrial sources that burn natural gas to produce heat or electricity would have an incentive to install more efficient equipment and maximize on-site energy conservation. However, the risks associated with this point of regulation would likely outweigh the benefits achieved through this approach. Regulating gas use at the source level would subject more sources to direct regulation under the program, which would increase the potential for errors and inaccuracies in the program's baseline emissions calculations and compliance instrument allocations. At best, the total GHG emissions reductions would be equal under both approaches, because all emissions from direct natural gas use would be subject to the same cap. At worst, source-level regulation could result in an over-allocation of compliance instruments that distorts market prices and leads to a glut of banked allowances. A source-level approach would also increase the potential for non-compliance, because there would be many more sources subject to regulation in contrast to a natural gas supplier-level approach.

There are two notable exceptions to this point-of-regulation determination that could shift the scales in favor of a source-level approach. The first exception concerns co-pollutant emissions. When natural gas is used to produce heat or power at an industrial source, reductions in gas consumption may have little to no impact on co-pollutant emissions from industrial processes. In this case, a source-level regulatory approach would not yield meaningful reductions in co-pollutant emissions in comparison to a supplier-level approach. If, however, DEQ identifies

specific industrial sources that could achieve reductions in co-pollutant emissions through reductions in on-site gas use, those sources should be subject to regulation along with other industrial sources that produce process-based GHG emissions. This is particularly important for industrial sources located in or near EJ communities.

The second exception concerns the aggregate emissions reduction potentials of the two approaches. If a supplier-level approach fails to achieve or lacks the potential to achieve sufficient reductions in GHG emissions, DEQ should shift to a source-level approach.

V. Conclusion

We appreciate the opportunity to provide input on the emissions, economic, and equity implications of the different flexibility mechanisms and point-of-regulation considerations raised at the second RAC meeting. Thank you for considering our comments.

Sincerely,
Amelia Schlusser
Staff Attorney
The Green Energy Institute at Lewis & Clark Law School

March 1, 2021

DEQ Office of Greenhouse Gas Programs Staff:

Thank you for the opportunity to comment on the materials and topics presented at the February 17th, 2021 Rulemaking Advisory Committee (RAC) meeting. Below you will find comments drawing on the expertise of Multnomah County staff and consultation with community partners.

Targets

Multnomah County strongly supports the inclusion of an interim target of 45% below 1990 levels by 2035, which is explicitly called for by Governor Brown's Executive Order 20-04. This goal aligns with the County's goal of reducing greenhouse gas emissions 40% below 1990 levels by 2030. We view the Governor's targets as minimums and therefore support the inclusion of the 50/90 modeled scenario.

Electricity generation

We understand DEQ's reticence to directly regulate in-state electricity generation that serves communities in Oregon, and agree that the Oregon Public Utility Commissions (OPUC) and the Oregon Legislature are better suited to address these sources of emissions. However, we are very concerned that merchant gas-fired generators that export power out of state may be excluded from DEQ's framework, as they are not regulated at the OPUC nor are they addressed under any proposed greenhouse gas legislation. We do not believe DEQ has sufficiently explained to RAC members and other stakeholders its rationale for leaving a significant source of greenhouse gas emissions in the state un-regulated. We agree with comments from other organizations suggesting that an analysis of likely leakage would improve the ability of the RAC and EQC to understand the implications of the decision not to include the electricity sector in the Climate Protection Program (CPP). These existing GHG emissions should be regulated by the program, and DEQ should also include additional restrictions on the development of any new gas-fired generation plants in Oregon.

Compliance flexibility and environmental justice

Compliance flexibility must not undermine equity. Compliance tools create a risk of exacerbating environmental justice issues if they entrench the status quo, as has occurred in other jurisdictions.[1] As discussed below, understanding current conditions is critical to avoiding this pitfall. Compliance flexibility mechanisms should result in pollution reductions that occur first and to the greatest extent in communities with high existing burdens from co-pollutants.

[1] Cushing, L. J., Wander, M., Morello-Frosch, R., Pastor, M., Zhu, A., & Sadd, J. (2016). A preliminary environmental equity assessment of California's cap-and-trade program. *Report. Program for Environmental and Regional Equity, University of Southern California Dornsife*

We request an analysis of current environmental justice concerns, detailing disproportionate exposure to greenhouse gas co-pollutants. The discussion on the RAC would benefit from a common understanding of the status quo regarding the distribution of health risks from co-pollutants among racial, ethnic, and economic groups. We believe a basic analysis can be accomplished in a matter of weeks using existing data sources, and Multnomah County staff are available to advise DEQ on analysis methods if needed.

Mobile source emissions are an environmental justice issue. Air pollution from traffic is associated with many health conditions, including leading causes of death in Oregon such as cancer, heart disease, stroke, dementia, diabetes, and respiratory disease. In Multnomah County, mobile source air pollution is estimated to account for 25% of cancer risk from air toxics.[2] It is estimated to result in tens of thousands of premature deaths annually in the US, a burden similar in magnitude to deaths from opioids and gun violence.[3] Large and persistent racial disparities are observed in health conditions related to traffic-related air pollution in Oregon. For example, type 2 diabetes is associated with many air pollutants.[4] In 2019 the death rate from diabetes among Black Oregonians was more than twice that of non-Hispanic whites.[5]

DEQ's briefing on compliance flexibility states that, "...most emissions covered under the program will likely be regulated at fuel suppliers and natural gas utilities. These entities report statewide emissions and would have statewide compliance obligations. This means that allowing trading among these sources would mostly not have direct implications for where co-pollutants are reduced" (p3). After reviewing data and consulting with environmental justice organizations, we reach a different conclusion. Trading, banking, or alternative compliance for transportation fuels could have direct equity implications for where co-pollutants are reduced. There are two reasons for this:

1.) Mobile source pollution is not distributed evenly within the state. Urban areas have higher concentrations of mobile source pollution, and a majority of Black people in Oregon live in urban areas. In 2019, 55% of Oregon's Black population lived in Multnomah County, and 77% lived in the three-county metro area.[6] Because of this, researchers found that Black Oregonians are exposed to NO_2 at concentrations about 40% higher than those experienced by white Oregonians.[7] In the maps below, the 20% of Oregon census tracts with the highest cancer risk from mobile source air toxics are highlighted in blue. These tracts are home to 40% of the state's Black population, but just 18% of the non-Hispanic white population.

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[2] US EPA (2018). 2014 National Air Toxics Assessment

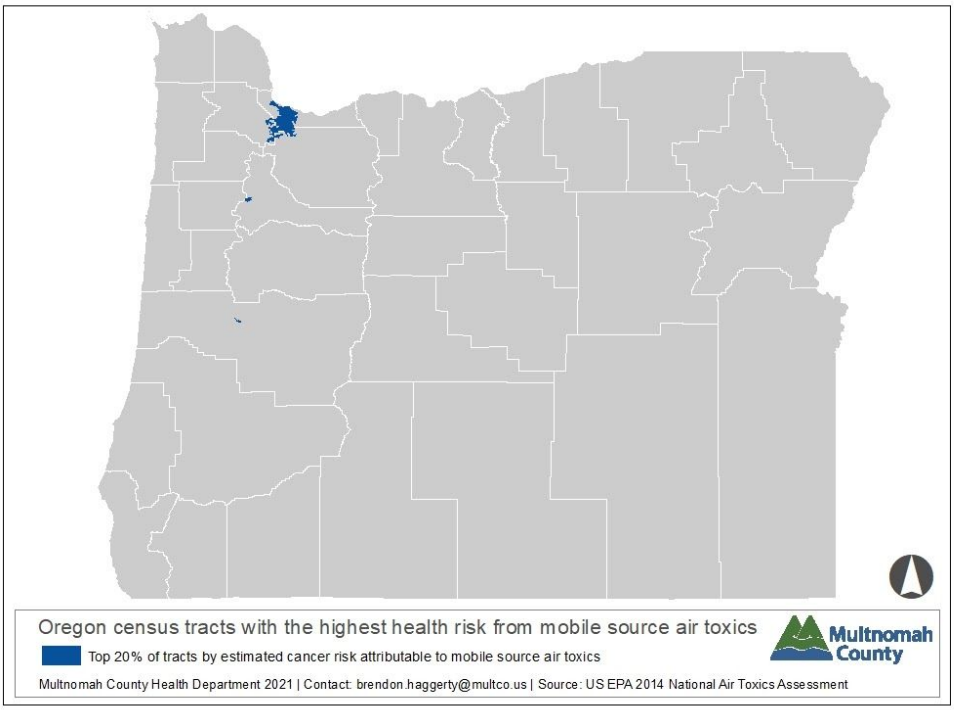
[3] Caiazzo, F., Ashok, A., Waitz, I. A., Yim, S. H., & Barrett, S. R. (2013). Air pollution and early deaths in the United States. Part I: Quantifying the impact of major sectors in 2005. *Atmospheric Environment*, *79*, 198-208.

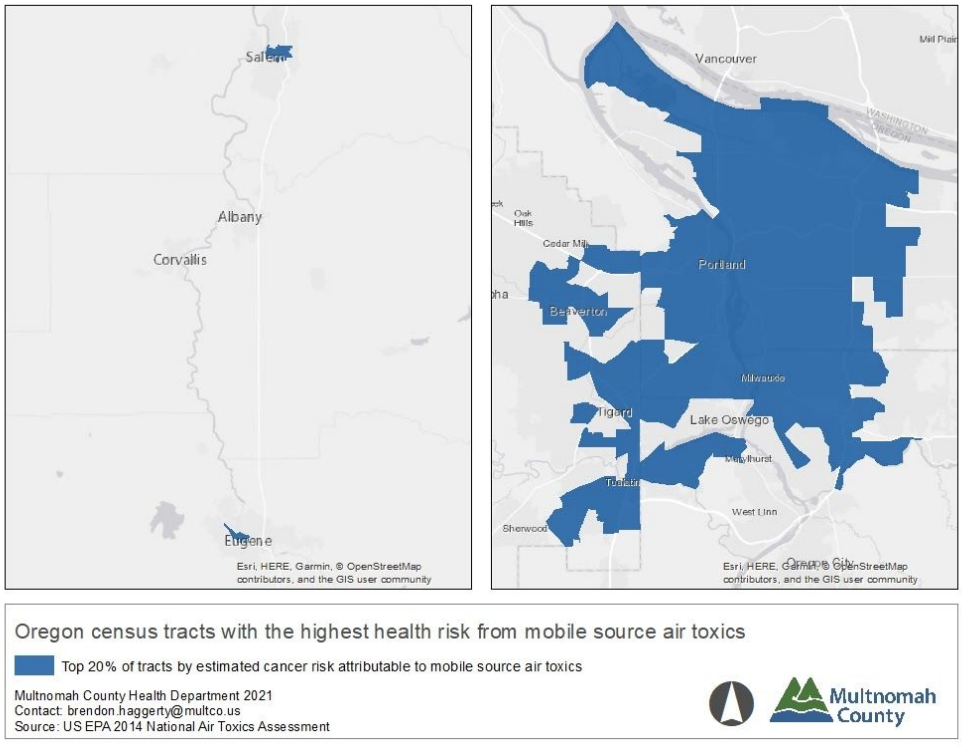
[4] Li, Y., Xu, L., Shan, Z., Teng, W., & Han, C. (2019). Association between air pollution and type 2 diabetes: an updated review of the literature. *Therapeutic advances in endocrinology and metabolism*, *10*.

[5] Oregon Death Certificates: Center for Health Statistics, Center for Public Health Practice, Public Health Division, Oregon Health Authority.

[6] US Census Bureau American Community Survey 1-year estimates, 2019

[7] Clark, L. P., Millet, D. B., & Marshall, J. D. (2017). Changes in transportation-related air pollution exposures by race-ethnicity and socioeconomic status: outdoor nitrogen dioxide in the United States in 2000 and 2010. *Environmental health perspectives*, *125*(9).





2.) Mobile source air pollution is not distributed evenly within cities. Many areas of the state, including the Portland Metro area, direct multi-family land uses onto major thoroughfares. This has the effect of concentrating more affordable housing near one or more sources of pollution.

Compliance flexibility mechanisms could conceivably result in a slower pace of reductions of co-pollutants in these areas. For example, if a transportation fuel importer chose to purchase compliance instruments via trade with another sector, it would prolong the period of exposure to co-pollutants compared to making direct reductions.

We suggest that DEQ collaborate with OHA on a statement describing health impacts of natural gas combustion, and separately, natural gas distribution. Many of the comments during the February RAC meeting alluded to environmental justice issues related to natural gas, but there is a lack of clarity as to the health effects that would cause a disproportionate burden on communities near gas-fueled power stations. A clear statement from DEQ and OHA on these health effects would benefit discussion on the RAC.

Health modeling

Quantitative estimates of health impacts are likely to understate total health impacts. As described in the February RAC meeting, the modeling tool COBRA focuses on fine particulate pollution, which lends itself to modeling and also has a large effect size on some health outcomes. However, this approach leaves a substantial amount of potential health impacts unquantified. We suggest that results be interpreted as the minimum health impact of each scenario. As discussed further below, there are numerous ways the CPP could influence health.

Health impacts omitted from quantitative estimates should be included in qualitative analysis. The CPP could influence health via multiple pathways, including:

- Pollutants other than PM2.5, especially ozone, NOx, and air toxics/hazardous air pollutants
- Physical activity (resulting from changes to transportation fuel costs)
- Mental health impacts
- Averted direct impacts from climate change (heat related illness, vector borne disease, pollen/allergic disease, smoke/respiratory & cardiovascular disease, harmful algal blooms, loss of livelihood, migration)

We suggest that these topics be included in the qualitative discussion associated with modeling. Available evidence should allow DEQ to characterize the direction of impact (positive/negative), severity, and the groups most likely to be affected.

Please be in touch if there is anything I can do to clarify these comments.

Regards,
Brendon Haggerty
Healthy Homes and Communities Program Supervisor (Interim)
Multnomah County Health Department

From: Lon Peters <lon@nw-econ.com>
Sent: Tuesday, February 16, 2021 5:10 PM
To: GHGCR2021
Subject: Climate Protection Program

The discussion of trading of allowances or compliance instruments in the Feb. 17 materials does not address inter-state transactions. Without inter-state trades, compliance costs in Oregon will be higher than necessary, almost by definition. Even if Oregon does not or cannot issue instruments that can meet California standards (for whatever reasons), Oregon might be able to *accept* California carbon allowances for compliance in Oregon. I strongly urge the DEQ to investigate all possible opportunities for inter-state trading, and work with the WCI to help enable such opportunities.

Lon L. Peters
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www.nw-econ.com

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February 27, 2021

Nicole Singh, Senior Climate Policy Advisor
Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Re: DEQ Cap and Reduce Rule Advisory Committee Meeting, February 17, 2021

DELIVERED VIA EMAIL: GHGCR2021@deq.state.or.us

Dear Ms. Singh,

Thank you for the opportunity to comment on the Department of Environmental Quality's (DEQ) second Cap & Reduce Rules Advisory Committee (RAC) meeting held February 17, 2021. The Northwest Gas Association (NWGA) represents the three natural gas utilities and two transmission pipelines that collectively operate more than 30,000 miles of safe, reliable energy delivery infrastructure providing warmth and comfort to more than 2 million Oregon residents and productive energy for more than 85,000 Oregon businesses, institutions and industries.

I mentioned at the outset of the first Cap & Reduce RAC meeting that I was concerned about the process. I appreciate that more materials were distributed in advance of the RAC and that you gave RAC members an extra day or two to provide written comments. I further appreciate the additional information provided to the public and to RAC members today. While informative and helpful, today is also the deadline for comments. Consequently, an extra couple of days on both ends would prove useful.

One of the assumptions in the modeling incorporates upstream emissions from the EPA's State Inventory Tool (SIT) into the overall emissions from the natural gas sector. Yet DEQ has no authority to regulate or control those emissions, which is precisely the argument it uses to avoid regulating emissions from the consumption of electricity. This represents an inconsistent and contradictory application of principles at best, at worst a definitive bias in approach.

As a matter of consistency, scientific rigor and fairness, DEQ should apply regulatory principles across all sectors. DEQ needs to regulate emissions from consumption based on upstream factors it knows and understands (which it does for both electricity and natural gas) or not -- but don't apply one standard for one sector, while exempting another sector from the same standard.

If DEQ insists on incorporating upstream emissions for natural gas, then it must be willing to regulate the lifecycle emissions from the consumption of electricity in the state and for which it has an even clearer more specific understanding. At the very least, the cap and reduce rule should only apply to the in-state emissions attributable to natural gas over which DEQ can arguably claim jurisdiction.

Speaking of bias, it runs counter to common sense that a means of achieving the objectives of EO 20-04 -- and thus the objectives of this rulemaking -- would be to shift loads from regulated entities (natural gas consumers) to unregulated entities (electricity consumers), as indicated during the RAC presentation.

Such a shift does not mean that emissions will decline. In fact, emissions could actually increase in the RAC scenario. For instance, PGE's most recent IRP indicates that its emissions will steadily increase for at least the next ten years.

EO 20-04 mandates that DEQ and other agencies pursue rulemakings that will result in an 80% decrease in Oregon's carbon emissions from 1990 levels. The rulemaking is already moving toward severely compromising that objective by exempting emissions from the consumption of electricity. Shifting loads from regulated to unregulated entities lowers the bar even further. Here is yet another reason to regulate emissions from the consumption of electricity. Electrification is not a synonym for decarbonization.

On the issue of alternative compliance instruments (offsets), we have previously commented that there must be flexibility for compliance, with access to out-of-state offsets and other alternative compliance options. We appreciate the policy scenario that offers the option of complying with up to 25% of an entity's obligation with offsets. However, any benefit from the additional offsets is washed out by the increased cap decline, a decline curve not mandated by EO 20-04, and one which further burdens limited participants in the program.

Carbon reduction is not just an Oregon issue but a global imperative. Therefore, reductions should be encouraged wherever they can be found. The cap and reduce rule should provide that at least 25% of an entity's compliance obligation may be met with alternative compliance instruments as in Scenario 3, and the cap declines according to Scenario 2 as mandated in EO 20-04.

Regarding "transport" customers, we believe that either the point of combustion or the point of sale is an appropriate point of regulation. As a "common carrier" that simply provides space on its distribution system if available, natural gas utilities have no leverage to compel emissions reductions. Furthermore, transport loads are large loads so the compliance obligation that comes with them is also large. To reiterate, of the three possible points of regulation so far contemplated, the utility is the least appropriate and effective.

NWGA will continue working collaboratively with DEQ during this rulemaking process. Our industry has been pro-actively adopting new technologies to reduce the emissions impacts of the gas sector and believes this work is essential to the state's overall climate policy goals. The natural gas delivery system is a safe, resilient and reliable means of delivering much needed clean energy and will make a positive contribution to Oregon's decarbonization goals.

Sincerely,

DAN S. KIRSCHNER
Executive Director

March 3, 2021

VIA ELECTRONIC MAIL

Department of Environmental Quality
Office of Greenhouse Gas Programs
700 NE Multnomah Street, Suite 600
Portland, Oregon 97232

RE: NW Natural Comments- DEQ Climate Protection Program Rulemaking Session #2

NW Natural ("NW Natural" or "we") appreciated the opportunity to provide comments on the discussions from the Department of Environmental Quality (DEQ) staff during the February 17, 2021 Rules Advisory Committee (RAC) meeting to implement Governor Brown's Executive Order 20-04. As mentioned in our comments from RAC meeting #1, NW Natural continues to strongly support the development of effective programs to address the existential crisis of climate change. This guided our support of proposed Cap and Invest legislation, HB 2020 and SB 1530. We are working vigorously to decarbonize our pipeline by 2050. It is critical that DEQ design a Climate Protection Program in a way that complements and accelerates the work already underway. We also agree that it is critical that impacted communities are meaningfully engaged in program design and commend DEQ for designing an inclusive, transparent process. That being said, we continue to have significant concerns around the scenarios put forth, the modeling, and staff leanings.

In an effort to be concise, we have attached our comments from RAC meeting #1 and we have organized additional comments in this letter by topic. We feel that our previous comments are still relevant to the ongoing discussions in this rulemaking process.

<u>Potential Utility Rate Impacts</u>
Under the currently proposed program scenarios, the expected costs of the Climate Protection Program for all types of gas utility customers is predicted to be severe. While we note the potential for cost savings enabled by the increase of Alternative Compliance Instruments (ACIs) in one of the scenarios, the corresponding accelerated decline in the carbon cap cancels out any potential cost savings. Moreover, DEQ did not provide any justification for the corresponding decline of the carbon cap; it is unclear which policy directive in EO 20-04 such a shift was designed to achieve.

The table below projects the incremental annual cost increase natural gas customers would be required to pay due to a Cap and Reduce Program without ACIs and compares that to the expected costs that would have been imposed by the Cap and Invest program requiring similar statewide emissions reductions[1]:

[1] Above and beyond the expectation from renewable natural gas acquisition in support of SB 98 and other changes in costs due to expected changes in the price of natural gas, needed investments to maintain safe and reliable service, and changes in operational costs.

Expected Annual Incremental Impact to NW Natural Customer Bills:
Cap and Invest vs Cap and Reduce Proportional to Statewide Goals in EO 20-04

	Residential		Commercial		Industrial	
	Cap & Reduce- EO 20-04 statewide trajectory applied to all entities	Cap & Invest- Gas utility treatment under SB 1530	Cap & Reduce- EO 20-04 statewide trajectory applied to all entities	Cap & Invest- Gas utility treatment under SB 1530	Cap & Reduce- EO 20-04 statewide trajectory applied to all entities	Cap & Invest- Gas utility treatment under SB 1530
2025	13%	10%	15%	9%	36%	19%
2030	34%	14%	41%	12%	86%	26%
2035	62%	16%	74%	19%	144%	37%

These projections are based upon the expected costs of the significant amount of incremental renewable gas and energy efficiency resources needed to meet such aggressive caps. These projections include the greatest amount of energy efficiency Energy Trust analysis shows is possible to achieve on behalf of NW Natural customers, as well as, a future where half of the gas sold by NW Natural is RNG or hydrogen. These cost increases are so acute for three primary reasons: 1) the emissions reduction requirement would be more aggressive than the requirements for gas utilities in programs in other jurisdictions, and, 2) the program cannot benefit from the flexibility of a state sanctioned emissions trading system linked with other larger jurisdictions, and 3) offsets and other alternative compliance mechanisms wouldn't be utilized to the degree that can overcome (1) and (2).

These cost increases are substantial and should be taken into consideration when designing the program. Additionally, EO 20-04 is explicitly clear in its directive that DEQ design a GHG reduction program in a cost-effective manner. To date, little discussion has been dedicated to the topic of cost containment. Moreover, the few times cost containment has been brought up as a topic, the discussion has veered in a very different direction, while not addressing or even unpacking the concerns around cost.

It bears repeating that DEQ does not have the needed statutory authority to implement the Cap and Trade program designed in either HB 2020 or SB 1530. As DEQ has stated, the agency does not have the current statutory authority to create an auction mechanism, which was the main source of funding for reinvestment programs in communities. DEQ should resist the urge to view ACIs as a way to achieve the same programmatic investment goals articulated in both HB 2020 and SB 1530. ACIs are not suited or designed for that purpose. Moreover, if the price point of ACIs becomes too high, covered entities are unlikely to purchase them, which would result not only there being no project investment, but there being no cost-containment either. DEQ needs to establish clear objectives, definitions and metrics for ACIs – focusing on the greatest GHG reduction and the most cost-effective price.

Additionally, DEQ should also resist narrowing the field of ACI projects to only those that have a material benefit in Oregon. Due to the lack of common definition and clarity, such limitations are more than preliminary. Little is known about what an ACI market would look like in Oregon, other than its small size which we can only anticipate will lead to high costs. Moreover, DEQ does not have a map or an ACI project inventory, which makes price projections extremely difficult, a key step for a regulated party like NW Natural as an advocate for our customers who will be impacted by the program's implementation.

Instead, DEQ should follow the model laid out in the Washington Clean Air Rule and accept compliance instruments from out of state. This generates greater GHG reduction at a lower cost. Without an adequate understanding of what an ACI market would look like, it is impossible to determine how many projects will be undertaken, at what cost, and whether they are actually cheap enough to defray compliance costs.

Scale of Emissions from Natural Gas Sources

Multiple times during the RAC meeting, the issue of fugitive methane leakage from pipelines was brought up by DEQ, the ICF International representative, and other RAC committee members. During the RAC meeting we do not believe that these emissions were represented accurately in relation to all other sources of emissions.

As presented in our 2019 Environmental, Social and Governance (ESG) Report, available online at https://www.nwnatural.com/about-us/environment/business-practices, NW Natural has one of the tightest, lowest-emitting systems in the nation. NW Natural has removed all cast iron and bare steel pipe from the system, resulting in less fugitive methane emissions. In 2019, fugitive methane emissions accounted for 0.1% of NW Natural's Scope 1 greenhouse gas emissions. This equates to approximately 97.5 metric tons of CO_2e. For context, on slide 63 of the RAC presentation, DEQ and ICF presented an emission estimate of 63.8 **million** metric tons of CO_2e for the 2018 state-wide reference case. If fugitive methane leaks are discussed in this rulemaking, we believe that it is important to understand the actual magnitude of these emissions.

Data Sources for the Natural Gas Emissions Estimates

NW Natural would like to better understand the sources of information and the assumptions that DEQ and ICF International are using for estimating emissions from natural gas. As one of the tightest, lowest emitting systems in the nation, NW Natural would like DEQ and ICF to use emission factors and data that our relevant to our system. National averages are not appropriate estimates of emissions from our system and do not take into consideration the effort that NW Natural has undertaken to reduce fugitive methane emissions.

NW Natural is also concerned about the assumptions used to predict future residential and commercial greenhouse gas emissions. On slide 65 of the RAC Meeting presentation, the key takeaway for residential and commercial emissions increases predicted by the model stated that "Emission increases driven by fugitive methane releases in gas distribution and high global warming potential materials (refrigerants)." NW Natural would like to know what modeling assumptions were used to draw this conclusion. EPA's website, https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions, describes leaks from refrigeration equipment as a source of emissions from residential and commercial properties, but does not include any reference to natural gas leakage. Indeed, fugitive methane releases are anticipated to continue to decline as pipeline technology and monitoring improve, so it is unclear why DEQ and ICF International expect gas distribution leaks to drive increases in residential and commercial emissions in the future.

Point of Regulation

NW Natural continues to question the effectiveness and efficacy of using natural gas utilities as the point of regulation for this program and disagrees with DEQ's theory that utilities are the "generative stimulus, force, or cause" of their customers' direct emissions. Natural gas utilities do not "force" or

"cause" a customer to purchase gas from the utility. The customer is in control of the amount of gas consumed. In addition, transport customers do not purchase their gas from the utility. The utility provides a delivery service for the gas through the pipeline infrastructure, but the natural gas utility is not the fuel supplier for transport customers. Regulating this program at the end user provides a direct relationship between the emissions generated and the limits presented by the program.

Needed Analysis for Program Alignment

Two weeks ago, the California Auditor's Office released report number 2020 – 114, which provided a thorough analysis of the effectiveness of California's programs aimed at reducing the state's GHG emissions. The report found that the programs are not working as designed, and not achieving the necessary carbon reductions in order for California to meet its climate goals. The report found that of the reasons for underachieving was the lack of coordination among the various programs. The lack of coordination led to gaps, duplications and unnecessary cost increases. This audit should serve as a cautionary note as DEQ designs the Cap and Reduce program. DEQ should provide a public analysis of how Cap and Reduce will work with programs like Cleaner Air Oregon, the Renewable Portfolio Standard, the EV rebate and the Low Carbon Fuels Standard among others to ensure that the Cap and Reduce program does not produce confusion, redundancies or unnecessary compliance costs.

Conclusion

Thank you for the opportunity to provide these comments. We are open to further discussion and providing any data that will help DEQ and ICF International analyze the impacts of different Climate Protection Program designs on the majority of Oregonians who are natural gas utility customers. We look forward to producing additional input as DEQ provides more information about the modeling results and as DEQ proceeds through this rulemaking process.

Sincerely,

/s/ Nels Johnson

Nels Johnson

Enclosures

cc: Colin McConnaha, DEQ
Nicole Singh, DEQ
Kristen Sheeran, Office of Governor Kate Brown

Northwest Pulp & Paper
ASSOCIATION

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Submitted to: GHGCR2021@deq.state.or.us

February 26, 2021

TO: Oregon Department of Environmental Quality

FROM: Northwest Pulp & Paper Association

RE: Rulemaking Advisory Committee Meeting 2, Oregon Climate Protection Program

Thank you for the opportunity for the Northwest Pulp & Paper Association (NWPPA) to provide comment on Oregon Department of Environmental Quality's (DEQ) Oregon Climate Protection Program Rulemaking Advisory Committee (RAC) Meeting 2, held February 17, 2021. As a member of the RAC, Kathryn VanNatta Director of Regulatory Affairs for NWPPA, submits the following written comments.

Background

NWPPA is a 65-year-old regional trade association representing 10-member companies and 14 pulp and paper mills and various forest product manufacturing facilities in Oregon, Washington and Idaho. Our members hold various permits issued by DEQ including permits for Title V Air Operating Program and the Air Contaminant Discharge Program, and also report Greenhouse Gas (GHG) emissions under DEQ's GHG Reporting and Third Party Verification Program.

NWPPA members are at the forefront of Oregon air quality improvement efforts. Our members have embraced technically advanced and scientifically sound controls on air emissions over the past 20 plus years. We are proud of our dedication to efficient and environmentally sound processes and reduction of GHG emissions over time. We are committed to the hard work, expense and discipline it takes to be contribute to our communities.

NWPPA staff are long-standing-stakeholder participants in numerous DEQ advisory committees including groups on: establishing regulatory programs, administrative rules (RACs), agency program improvement efforts and agency fee increases.

Overarching comments

Oregon's pulp and paper sector has been recognized as an essential business by state and federal governments. Without fail, our Oregon mills' essential workers have been making vital paper products we all use every day to help fight against COVID-19. Our essential paper

products are used by Oregon consumers as well as being distributed within the Western US and abroad.

NWPPA's comments on the RAC meeting held February 17 should be construed as preliminary in nature, given the enormous complexity of the proposal and many assumptions with very limited details, and the short comment turn-around time. NWPPA will provide additional comments on this rulemaking as we continue our analysis over the coming months.

While many details are unclear, pulp and paper manufacturing could face increased costs from Scope 1 (on-site combustion and process emissions), Scope 2 (cost of energy) and Scope 3 (transportation fuels required to get our vital products to consumers). We ask the Department to keep this triple-threat cost profile in mind as you design Oregon's program.

Shared goals

NWPPA member mills have been longtime leaders in minimizing GHG emissions by maximizing the use of carbon-neutral biomass as the sector's primary (57%) fuel source and the use of highly efficient combined heat and power (CHP) systems for onsite energy generation of steam and electricity. Since 2010 Oregon pulp and paper sector has reduced emissions from anthropogenic sources by 62,000 mt CO_2e. That's the same as removing over 13,400 passenger vehicles from the road for one year.

Oregon's pulp and paper mills make their products with predominantly zero-carbon emitting hydropower and other renewables for purchased electricity, carbon neutral biomass, and natural gas—resulting in one of the most environmentally responsible manufacturing methods in the world. As a result, in 2019 Oregon's pulp and paper sector emitted only about 1% of the state's anthropogenic GHG emissions.

Biogenic recognition and incentives

NWPPA appreciates the fact that emissions from the combustion of biomass and process by-products are not proposed for regulation. Biogenic emissions clearly should not be included. NWPPA believes that the pulp and paper sector should be recognized for our leadership in reducing anthropogenic fuel use in manufacturing by using residual materials generated in our manufacturing processes for energy production and for our manufacture of recycled paper products.

Well-designed and operated CHP systems have been shown to be more energy efficient than the separate generation of heat and power. The most common fuels used within forest product CHP systems are pulping liquors, a by-product of the chemical pulp manufacturing process, and wood waste, though some fossil fuels are used as well. Abundant research has made it clear that the types of biomass being used in CHP systems in the forest products industry, i.e. black

liquor, bark, and other woody residues from manufacturing, are characterized by very low or even negative net emissions of biogenic GHGs. The operation of biomass-based CHP systems results in significant CO_2 emission reductions due to the greater energy efficiency of CHP systems and the wide-spread utilization of low GHG emission biomass fuels. Other benefits of CHP systems include resiliency benefits to the electricity grid, and the avoidance of transmission and distribution losses by consuming power at the point of generation. The pulp and paper industry generates steam and electricity via predominantly low GHG and energy efficient CHP systems that are part of the kraft recovery system. The functions of the kraft recovery system that utilize black liquor, a by-product of the kraft pulping process, not only generate energy but recover pulping chemicals and manage black liquor solids.

With Oregon's abundant forest resources and our Oregon forest products supply chain from timber harvest-to-papermaking-to-consumers, Oregon's pulp and paper sector should be incentivized for the use of biomass, CHP and recycled materials. Incentives could assist in our use of biomass for onsite CHP, as CHP allows us to efficiently self-generate much of our steam and energy needs onsite and also incentives to continue and increase our use of recycled materials.

Pulp and paper sector is energy intensive and trade exposed (EITE)

Pulp and paper manufacturing is one of the most energy intensive and trade exposed sectors in the country. The Governor's 2018 study, titled *Oregon Sectoral Competitiveness under Carbon Pricing, Final Report December 2018*, prepared for the Oregon Carbon Policy Office study by Vivid Economics,[1] categorizes Oregon's pulp and paper sector as an EITE sector. Therefore, a primary DEQ consideration for elements of the future program must be the fact that Oregon's pulp and paper sector is vulnerable to regulatory programs that increase production costs relative to producers in other jurisdictions because these costs typically cannot be passed on to consumers. Carbon regulation increases the cost of energy (a major cost component of pulp and paper production) and therefore has the potential to cause production to "leak" to other jurisdictions. As discussed in more detail below, such leakage to locations that likely have higher GHG emissions intensities would in fact increase the greenhouse gas emissions for an equivalent amount of pulp and paper or wood products produced, which works against the

Leakage

DEQ's Greenhouse Gas Emissions Program 2021 Rulemaking: Background Brief [2] states there could also be costs for consumers and businesses. We believe there will be significant cost

[1] https://www.vivideconomics.com/wp-content/uploads/2019/08/Oregon-Industrial-Sector-Competitiveness-Under-Carbon-Pricing-1.pdf (downloaded Jan. 19, 2021).

[2] Climate Protection Program, Greenhouse Gas Emissions Program 2021 Rulemaking: Background Brief, dated Dec. 18, 2020.

increases for consumers and businesses and that the program should be designed to ensure Oregon business may thrive. Regarding leakage, the Brief also states at page 4,

> DEQ also seeks to minimize leakage, which is the shifting of greenhouse gas emissions outside of Oregon or outside the scope of the program's regulation. This may result in emissions in areas or sectors where there are no emissions regulations or there are less strict emissions regulations.

Leakage of a small percentage of Oregon's pulp and paper sector's production related emissions to nearly any other part of the world has the potential to increase the GHG emissions, both in areas with and without GHG emission regulations. Another key factor to consider is that Oregon has one of the lowest state-based GHG emission factors associated with purchased electricity of any major pulp and paper producing state in the US. Production shifts outside of the state would increase purchased electricity GHG emissions as well as increase transporation-related GHG emissions by shifting production from local mills to facilities outside of the state or country. Production shifts outside Oregon would also bring the devastating effects of the loss of family-wage essential worker jobs in rural areas within the state.

The pulp and paper industry is an energy intense industry, and is sensitive to carbon policy programs that increase the cost of energy which can cause production to shift to other juridictions without the added carbon costs. Due to the sector's extensive utilization of biomass for energy needs (the industry derives approximately two-thirds of its fenceline energy needs from biomass), the pulp and paper industry has a larger energy intensitve footprint than GHG intensive footprint. As when federal cap and trade was being considered in the American Clean Energy and Security Act of 2009 (Waxman-Markey cap and trade legislation), it is important that EITE eligibility criteria be defined on a basis of energy intensity or GHG intensity.

Necessity of Alternative Compliance Mechanisms

NWPPA believes that mitigating the risk of leakage for Oregon's EITE pulp and paper sector should be a major program design consideration. NWPPA's preferred way to protect our essential paper manufacturing base and our highly-trained essential workers is to exclude Oregon mills and our energy supply from the program. However, if the rule moves forward including the pulp and paper mills and our forest products supply chain in the program, there must be multiple compliance pathways *thoughtfully and carefully built into the core of the program*.

In general, NWPPA believes all alternative compliance mechanisms being discussed in DEQ's RAC brief, Role of Compliance Flexibility Mechanisms,[3] are viable and necessary mechanisms for EITE sectors such as pulp and paper and should be fully utilized.

Thank you for the opportunity to provide written comment on DEQ's Oregon Climate Protection Program Rulemaking Advisory Committee (RAC) Meeting 2, held February 17, 2021.

[3] Climate Protection Program, Role of Compliance Flexibility Mechanisms, dated February 10, 2021

February 24, 2021

Colin McConnaha
Manager, Office of GHG Programs
Oregon Department of Environmental Quality
GHGCR2021@deq.state.or.us

Comments on Oregon Climate Protection Program: Rulemaking Advisory Committee Meeting 2

Dear Colin,

Thanks to you and your colleagues for another well-organized RAC meeting on this important program. The OLCV Metro Climate Action Team (MCAT) is a community of experienced volunteers working to steward significant greenhouse gas reduction legislation into law in Oregon, and several of our members attended the meeting. As a member of our Steering Committee with professional experience in energy system modelling and policy analysis, I have prepared the following comments regarding the modeling approach and the policy scenario options on behalf of the full committee.

Electricity Generation

As noted in earlier comments, we would prefer that DEQ include the electricity generating sector in the program and do not believe the out-of-state leakage is a significant concern, especially considering the trend to 100% clean electricity as evidence by 15 states already have laws on the books including California and Washington. But, whatever the final policy, DEQ should have ICF report all energy sector emission results from their modeling – both included and excluded sectors, so that the impact of this exclusions can be clearly seen. We strongly encourage DEQ to not consider any further exclusions from the program.

Point of Regulation

We support DEQ's leaning to regulate industrial process emissions at stationary sources and encourage DEQ to regulate natural gas use at the facility level for stationary sources of natural gas use and process emissions greater than the threshold. Our rationale is that these large industrial companies are in the best position to find the most cost-effective long-term ways to reduce their emissions through both energy efficiency and switching from fuels to electricity.

Modelling Approach

The Modeling FAQ document provided further insight into the modeling approach of ICF. In addition to the Vision model for the transportation sector and the IPM model for the electric generation sector, demand side planning tools for residential and commercial energy demand are mentioned, but no information is given regarding the level detail in each sector; such as, what level of energy efficiency improvements will be modelled, what types of energy demand devices are included, and what are the limits or assumptions on their rate of uptake? Such explanations should be readily available from ICF.

Furthermore, as mentioned in our previous comments, nothing is provided as to how the industry sector will be modelled in terms of likely emission reduction paths, expected investment costs and changes in fuels expenditures over the life of the facility. Effective modeling of the industry sector is critical to understanding some of the trade-offs regarding the Point of Regulation issue discussed above, and in understanding the local economic impacts for Oregon's industries and communities. The only mention

of the Industry sector in Section 6 of the FAQ is in regard to IMPLAN, which will only look at the macroeconomic impacts to the emission reduction choices each industry sector makes.

Flexibility Mechanisms

We generally support banking of allowances but believe that important limitations are needed to ensure an effective program. First, the program needs a mechanism for ex post facto adjustments to allowance levels to account for changes in the economy that result in an over or under allocation. Metrics and thresholds for the economic changes would need to be developed. Second, banked allowances must have an expiration period. This could be as long as 10 years, but should not be unlimited. Compliance periods should be a maximum of 3 years.

Modeling Scenarios

Thank you for the changes to the three policy scenarios, and for including the expansion of the Clean Fuels program in the Reference case policy assumptions. However, many people were confused by the terminology in the Sector Exclusions row of Table 1, which exempts natural gas supplied by interstate pipeline companies, and seems inconsistent with the next row on natural gas point of regulation. Perhaps this can be better clarified.

Alternate Compliance Instruments

DEQ has selected an allowable range for ACIs of 5% to 25% for the three policy scenarios, but 25% is much too high a level and would effectively allow business as usual emissions through late in this decade. We strongly recommend DEQ model the allowable use of ACIs at 0%, 4% and 8% for the three scenarios, respectively. We further recommend that DEQ consider subtracting the potential offset pool from total number of allowances available each compliance period.

We would like to attend any informal session regarding review of the data inputs to the modeling work, as requested by several RAC members, and we hope DEQ will make these open events.

Sincerely,

Dr. Pat DeLaquil, DecisionWare Group LLC, www.decisionwaregroup.com
on behalf of the OLCV MCAT Steering Committee:
Brett Baylor, Rick Brown, Dan Frye, Debbie Garman, Mark McLeod, KB Mercer, Michael Mitton, Rich Peppers, Rand Schenck, and Jane Stackhouse

February 24, 2021

Colin McConnaha, Manager
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700 N.E. Multnomah St., Suite 600
Portland, Oregon 97232

Submitted to: GHGCR2021@deq.state.or.us

RE: Climate Protection Program
Comments to February 17th Meeting Questions

Mr. McConnaha and staff:

Thank you for the opportunity to comment on topics from the second meeting of the rules advisory committee (RAC) for the Climate Protection Program. The Oregon Association of Conservation Districts (OACD) is a non-profit association that represents the 45 Soil and Water Conservation Districts (SWCDs), local governments organized primarily at the county level. The mission of SWCDs is to support conservation of natural resources through a variety of efforts ranging from education to implementing on-the ground projects, and providing technical services and support funding to landowners, both urban and rural.

We support all four of the flexibility options:

- Inclusion of alternative compliance options
- Banking without limitations
- Trading among emitters
- Multi-year compliance periods

Working and Natural Land Projects as Alternative Compliance Instruments (ACIs)
OACD's primary role associated with the rulemaking is representing natural and working lands and their role in decarbonization. While we are working with DEQ's rulemaking process we continue to take part in the Oregon Global Warming Commission (OGWC) meetings as supporters of their natural and working lands study and continue our ongoing work with the natural resource agencies. We believe that natural and working lands can provide significant and important reductions to greenhouse gas emissions through the implementation of good management practices in wetlands, forests, and agricultural systems that provide for voluntary sequestration of carbon. Much is known about carbon sequestration in natural and working lands, but the state of the science will continue to make significant strides forward in the future to provide more precision on quantifying the benefits of individual management practices. The

Climate 21 Project recently distributed by the current federal administration indicates that as much as 20% of the reduction in greenhouse gases can result from sequestration from natural and working lands. Demonstration projects are already underway in Oregon. The Oregon Watershed Enhancement Board is addressing climate mitigation projects in their grant programs funded by lottery dollars. The OGWC is also addressing potential strategies in their natural and working lands study to address greenhouse gas reductions.

We feel that ACIs on natural and working lands should be more emphasized in the discussions and work products of the RAC. It is important to recognize that all of the details of natural and working lands ACIs do not need to be known today. The framework for natural and working lands ACIs can be established in rule and can be written with enough flexibility to account for the following:

- Allowance for science and technology to evolve to further develop viable and reliable natural and working lands ACIs as this approach can stimulate the kind of innovation that will ultimately lead to deeper emission reductions over time;
- Allowance for projects to be developed in a variety of ways including projects sponsored by regulated GHG emitters, projects lead by individual landowners, and projects led by the state for public benefit;
- Allowance for some natural and working lands projects to be out of state with a goal and plan of driving more investments in Oregon;
- Allowance for investments in ACIs to be incentivized when they provide additional environmental justice benefits.

Attached to this letter is an analysis titled “A Rationale Demonstrating that Alternative Compliance Instruments Can Lead to Better Greenhouse Gas Conditions in the Long Run.” This analysis makes a compelling case that an ACI program can be set up to provide important regulatory flexibility without any net increase in emissions in the near term, and improved reductions in greenhouse gas reductions in the long term.

Additional Benefits of ACIs

ACIs on natural and working lands offer a wider range of additional or value-added benefits as follows:

- ACIs on natural and working lands are usually very good for the overall environment and can be directed towards rural populations and impacted communities to improve their living conditions as an equity benefit.
- They offer an opportunity to improve our climate beyond the point that can be achieved with emissions reductions alone.
- They can offer value added benefits to agriculture and forestry. For example, carbon sequestration is clearly encouraged as the health of soils is improved. Healthy soils result in better growth of plants with fewer synthetic inputs in the form of fertilizers and pesticides and result in more resilient natural systems.
- They can be a source of new technological innovation and additional jobs while promoting management and conservation techniques.
- ACIs that are locational can benefit impacted and rural communities.

Limitation of ACIs in Scenarios

The three scenarios outlined on page 70 of the PowerPoint from the second RAC meeting show ACIs reduced to only 5% per year in Scenario 1, 10% in Scenario 2, and 25% in Scenario 3. We do not see the need to limit ACIs. In review of programs from other states, ACIs have the

same flexibility application as trading, banking, and other options as all of the options reduce greenhouse gases. If there is to be a cap on ACIs, it should begin at no less than 25% for all 3 scenarios and the program should allow for future variability based on progress and adaptive technologies. Other states (the RGGI – Regional Greenhouse Gas Initiative in 10 eastern states, and programs in California in particular) have had experience with ACIs that can be informative to Oregon. There does not seem to be a trend to limit ACIs and we don't see a reason that the ability to reduce 1 metric ton of GHGs should be different based on how it is accomplished.

Adaptation of ACIs
As with all flexibility options, incentivizing options provides earlier emission reductions and allows the target to be met earlier. As DEQ's program for greenhouse gas reductions continues, there should be flexibility in determining both the scope and identity of ACI projects. Don't draw the lines so tightly that projects with new technology and other benefits are precluded. Make adjustments on some variable basis (every 5 years?) to review progress, what works, what doesn't. As science and technologies increase and change in future years, we must take advantage of those opportunities.

Other Flexibility Options
OACD supports banking and trading as other flexibility options which would have the ability to contain costs for the public while promoting emission reductions and alleviating burdens for impacted communities. Banking would also allow for mitigation against risk: weather, fire, and economic disruptions, to name a few. Banking without expiration could be considered at the outset of the program. Trading should be flexible without limitations as trading only exchanges reductions among entities. Multi-year compliance periods could begin with a three-year window and the term of future periods could be defined as the plan is reviewed. Multi-year compliance promotes earlier reduction of emissions and the accompanying co-pollutants. Multi-year compliance also allows for a lesser regulatory burden for both emitters and DEQ administration. For our association, ACIs are the most important flexibility option as they are directly related to the work we do and provide locational benefits the other flexibility options do not.

Electricity and Natural Gas Limitations
We are concerned that electric utilities generating power with fossil fuels are not planned to be regulated for GHG emissions. We recognize that most fossil fuel electricity emissions are generated out of state. Potentially including electricity emissions could shift more utility purchases to dirtier resources out of state. President Biden is bringing back the national power plan rules that the last administration dismantled so the clean energy components of that plan will promote major change in the electric utility industry through deadlines and enforcement. Our own electric utilities have already surpassed their RPS requirements (renewable portfolio standard requiring green energy components) and are moving on their own to green resources because they are less expensive and better fit their integrated resource plans (IRPs). As Bob Jenks of the Citizens' Utility Board (CUB) indicated, the electric utilities are already moving toward significant reductions. However, the State of Oregon must keep up the pressure to reduce GHG emissions from fossil fuel electricity. If this can't be done through the DEQ rules, DEQ must make it clear to the public and the state's legislature that this is a significant gap that needs to be addressed.

We believe that no new natural gas plants should be sited. While the PUC has authorities to carry out that mandate with investor owned utilities, other authorities would be required to stop siting by public utilities, municipalities and private entities or merchant projects. The issue of electricity and natural gas limitations, while primarily beyond existing DEQ authority, could be regulated within a reduction plan by decisions of the legislature and legislation is pending that

would provide some additional authorities. Again, DEQ must make it clear to the public and the legislature that this is a significant gap that needs to be addressed.

We would also like to point out that irrigation districts are aggressively undertaking both conservation and energy programs statewide. One of the best examples is efforts to pipe open canals and build small hydropower facilities at the end of the pipeline to provide renewable energy while conserving 30-40% of the water. The conserved water is frequently returned to instream flows as older priority water rights. Cities are now developing hydropower in their drinking water and wastewater systems. Our existing laws have provided the flexibility and authority to move toward green energy systems and more such development is expected.

Point of Regulation
We are not taking a position on point of regulation at this time. However, we believe that keeping the regulation simple is important for both the regulated community and the regulators. Keeping the number of regulated entities limited may also have a benefit to the ACI program. The ACI program will required some degree of sophistication to administer and implement, and with fewer involved in the program, it may be more successful.

Modeling
We anticipate the results of the several modeling scenarios to provide numbers we can successfully integrate into RAC decisions. The explanations provided at the February RAC meeting are helpful in interpretating the model expectations.

We appreciate the opportunity to participate in the RAC and look forward to a final set of rules that will lay the foundation for an equitable and effective Climate Protection Program.

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Attachment: A Rationale Demonstrating that Alternative Compliance Instruments Can Lead to Better Greenhouse Gas Conditions in the Long Run (prepared by OACD Alternate, Stan Dean)

March 2, 2021

VIA EMAIL

Colin McConnaha
Manager, Office of Greenhouse Gas Programs
Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Re: Comments on Cap and Reduce Rule Advisory Committee Meeting 2, Feb. 17, 2021

Dear Mr. McConnaha:

Thank you for the opportunity to comment on the Department of Environmental Quality's (DEQ) second Cap & Reduce Rules Advisory Committee (RAC) meeting. I am writing on behalf of Oregon Business & Industry (OBI), Oregon's most comprehensive statewide business association, representing more 1,600 businesses that employ more than 250,000 people across our state.

OBI offers the following comments on the materials presented and discussion at the Feb. 17 meeting.

Flexibility Mechanisms for Achieving Compliance Are Critical

Significant discussion was dedicated to the various flexibility mechanisms that could be used to achieve compliance and control costs. In breakout groups, DEQ directed RAC members to discuss which of those flexibility mechanisms are most important and effective in implementing the program.

First and foremost, we have yet to see what the compliance pathways will be so we can better evaluate their adequacy. It seems somewhat premature to focus on flexibility mechanisms when we have not seen a proposal on what these basic compliance pathways will be.

We are concerned that this discussion became high-centered on the word "flexibility," which created a perception among some RAC members that the GHG reduction targets would somehow not be achieved if flexibility were afforded. We believe it is important to clarify that any flexibility mechanisms provided in the program would be carried out consistent with the program's GHG reduction targets and that flexibility is aimed at *how* to achieve the goals of the program rather than *whether* to achieve the goals of the program.

Flexibility is essential and is built in to all existing GHG reduction policies we are aware of. Real, quantifiable, certified GHG reduction flexibility mechanisms help regulated entities meet these enforceable caps. It does not make sense to create a punitive program that could easily result in acute challenges for consumers such as market volatility that would negatively impact consumers and businesses.

We appreciate DEQ's leanings toward allowing flexibility in the following ways:

- Trading: The option to buy and sell compliance instruments among regulated entities is an effective way to reduce overall emissions by incentivizing GHG reductions from entities that have greater capacity to carry out reductions without penalizing those that may be more constrained by available and affordable technology, market forces or the broader economy.

- Banking: All of the sectors regulated under Cap & Reduce are subject to dynamic forces that result in significant fluctuations in manufacturing production as well as the use of natural gas and transportation fuel. Markets for specific products, the weather, the economy and other factors create variability in annual GHG emissions. Banking incentivizes early reductions without penalizing regulated entities for uncontrollable factors.

- Alternative Compliance Instruments: Multiple options will be required to demonstrate compliance and manage costs. Use of alternative compliance instruments is another essential mechanism for regulated entities to achieve both and should be utilized to the maximum extent possible. We urge DEQ to allow sourcing of alternative compliance instruments from broad project types and geographic areas that would provide access to instruments both inside and outside Oregon.

- Multi-Year Compliance Periods: As discussed above, many uncontrollable variables come into play in any given year. Regulated entities rely on strong markets to weather the inevitable and corresponding downturns to remain economically viable over the long term. DEQ's program should provide for these dynamic factors affecting GHG emissions that are unknowns from year to year by implementing multi-year compliance periods.

  As DEQ is aware, installation and implementation of any type of control technology does not happen in a single year. These technologies take time to identify, plan for and permit. Without providing the flexibility of a multi-year compliance period, regulated entities' only option may be to curtail production or limit the amount of transportation fuel and natural gas sold to Oregon customers. These would not be favorable outcomes to Oregon's economy, workforce, or residents.

  DEQ raised the option of starting with longer compliance periods at the beginning of the program and then moving to shorter compliance periods as the program matures. Our concern is that facilities may be able to identify easier-to-achieve reductions early in the program while subsequent reductions later in the program may be more challenging later on. For these reasons, we urge DEQ to adopt five-year compliance periods for the duration of the program consistent with the Title V and Air Contaminant Discharge Permit renewal cycles.

Additional Information Is Needed to Evaluate Point of Regulation

Overall, we believe that more information is needed to assess the appropriateness of solely regulating upstream. Thus far, there has been little discussion of how the transportation fuels would be regulated under the program and we look forward to seeing a robust discussion on proposals for this sector including realistic compliance pathways.

DEQ has stated its preference for regulating entities upstream at the natural gas supplier (utility), rather than downstream at a stationary source. We understand the complexity and challenges that multiple points of regulation could create and we will be engaging in those discussions across the sectors regulated under the program.

One major challenge we see with upstream regulation is how Energy/Emissions Intensive, Trade Exposed (EITE) businesses would be treated, considering the extensive discussions around leakage during negotiations on two different cap and trade bills. The unique vulnerability of these businesses is well documented in studies such as the Vivid Report commissioned by Governor Brown.

It is essential that the regulatory treatment of one sector not come at the expense of another sector. However, given the complete lack of discussion around impacts to EITE businesses, we must urge DEQ to address this issue.

Modeling Concerns

We appreciate DEQ's inclusion of ICF staff in the last RAC meeting, however, the discussion of the policy scenarios proposed for modeling was limited. We encourage DEQ to include ICF in future meetings to illuminate our discussions.

In general, we have significant concern with the policy input parameters DEQ has indicated ICF will model. The benefit of modeling is being able to make choices between a few key policy design options to determine which ones produce the greatest benefits. Adjusting too many levers in the policy choices will not be informative to the process in how to achieve program goals, which is our perception of what DEQ has proposed. We would also note that we do not believe it is appropriate to model an option that would require a 90% reduction of GHG emissions below 1990 levels, given that it is not a provision of Executive Order 20-04.

Conclusion

OBI appreciates the opportunity to offer comments on Cap & Reduce Meeting 2 and we look forward to engaging in this rulemaking as it moves ahead. As always, please contact me should you have any questions.

Sincerely,

Sharla Moffett
Director
Energy, Environment, Natural Resources & Infrastructure

A Rationale Demonstrating that Alternative Compliance Instruments Can Lead to Better Greenhouse Gas Conditions in the Long Run

February 23, 2021

Contact Information: Stan Dean, stan.dean@jswcd.org, (530) 902-7415

The Issue

The Department of Environmental Quality (DEQ) is developing a program to regulate Greenhouse Gas Emissions (GHGs) from major sources of emissions (regulated entities or REs). Concerns have been expressed about use of Alternative Compliance Instruments (ACIs). ACIs are essentially special projects that offset GHGs from REs. One example of a potential ACIs is taking GHGs out of the atmosphere and sequestering the carbon in soils. Another example is conversion of non-regulated combustion sources from fossil fuels to renewable energy sources.

This analysis is focused on GHGs in the environment and does not address environmental justice and equity issues. Such issues are important and have their own arguments relative to ACIs. It is important to note that ACIs can have significant value-added benefits that go beyond climate mitigation.

The Argument Against ACIs

It is argued that ACIs take the pressure off REs to reduce their GHG emissions and ACIs allow them to put out more GHGs. There may also be concern that ACIs might get credit when in fact they may have been implemented regardless of the ACI program.

The Argument for ACIs

The purpose of controlling emissions from REs is to enact one tool to improve the amount of greenhouse gasses in the atmosphere. However, the ultimate purpose is to mitigate climate change, and in doing so, the methods for how GHGs are reduced it is less important than the end result of all actions combined. ACIs have the potential to result in better overall impact on greenhouse gasses in the atmosphere.

Assumptions

This analysis is based on the following assumptions:

- DEQ regulations address fuel suppliers, natural gas, and stationary sources.
- The 2019 emissions from these sectors are 24.1 MMT CO2e for fuel suppliers, 16.9 MMT CO2e for natural gas, and 1.5 MMT CO2e for process emissions from stationary sources for a total of 42.5 MMT CO2e.

- Year 2019 emissions are close to 2020 emissions and about 10% higher than 1990 levels. The estimated 1990 levels for these sectors is about 38 MMT CO2e.

- Executive Order 20-04 calls for an 80% reduction in 1990 levels by 2050. The corresponding target for 2050 for these sectors is about 8 MMT CO2e.

- The ACI program is designed to allow up to 25% of the allowed emissions in any given years to be met with ACIs. Therefore, as the allowed emissions are reduced over time the MMT CO2e that can offset with ACIs is reduced. In other words, the 25% remains constant, but over time the 25% is applied to a smaller and smaller number.

- The ACI program is designed such that specific ACI projects are only counted if they would not otherwise be driven to implementation. This prevents taking more credit for an action that justified.

- The ACI program is set up with a one-to-one relationship in the emissions of the RE and the offset by the ACI.

- It will take time to develop an ACI program, perhaps as much as 10 years for a full suite of ACI projects to be available.

- Businesses will view ACIs from a business perspective and will only invest when there is a return on that investment. Because the emissions that can be offset with ACIs will decrease over time, business will not develop ACIs equal to 25% of 2020 allowed emissions. Industry would be more likely to develop ACIs equal to 25% of 2040 allowed emissions, so that the investment has a long time to recover the costs of implementing the ACIs.

- Usually, ACI projects will have a long-term benefit that will exceed the period when industry needs them to offset their emissions.

Analysis in Figure 1

Figure 1 is a presentation of the current emissions from REs over time. The lower line is the projection with no ACI program, i.e. GHG emissions are reduced from 42.5 MMT CO2e in 2020 to 8 MMT CO2e in 2050. The upper line shows the amount REs could theoretically emit with a program that allows ACIs to offset 25% of an REs emissions.

In theory, this would mean that on day 1 of the program the REs could actually emit more GHGs than current levels. However, from a practical standpoint this is highly unlikely to happen. it will likely take years to fully develop and implement an ACI program. And because the amount of ACIs that business can use reduces over time they would likely make a smaller and smarter investment. The middle line on the graph represents a realistic scenario.

If REs were to continue to reduce emissions beyond 2050 with a target of zero, the upper and lower lines in Figure 1 would converge with exactly the same end result.

Keep in mind, the lines in Figure 1 are only emissions from REs and do not account for any of the benefits from the ACIs.

Analysis in Figure 2

Figure 2 is a presentation of the net amount of greenhouse gasses that are released to the atmosphere as a result of both RE emissions and ACI offsets. One line shows the effect without ACIs and is identical to the line in Figure 1 in which emissions decrease from 42.5 MMT CO2e in 2020 to 8 MMT CO2e in 2050.

The second line shows the result with ACIs. In the beginning both lines are essentially the same under the assumption that businesses will slowly invest in ACIs over time with a maximum investment occurring in the year 2040. After 2040 businesses will have more ACIs than they actually need. But the ACIs still have lasting benefits and the net result in the later years is more favorable with the ACI program.

Conclusions

With a well-designed ACI program, the net effect on our climate should be break even in the early years, but the long-term benefit is improved with the ACI program.

An ACI program can allow slower reductions in emissions from REs, but this is offset by the benefits of ACIs.

An ACI program which allows 25% of RE emissions to be offset seems large, but this perception is deceptive. Due to the time needed to develop and implement ACI programs and the diminishing benefit to businesses over time, the use of ACIs in this case is still likely to be modest.

ACIs have additional benefits stemming from being able to design ACIs for environmental justice and equity and from other value-added benefits.

Figure 1 – Emissions from Regulated Entities (REs) with and without Availability of Alternative Compliance Instruments (ACIs) to Offset up to 25% of RE Emissions

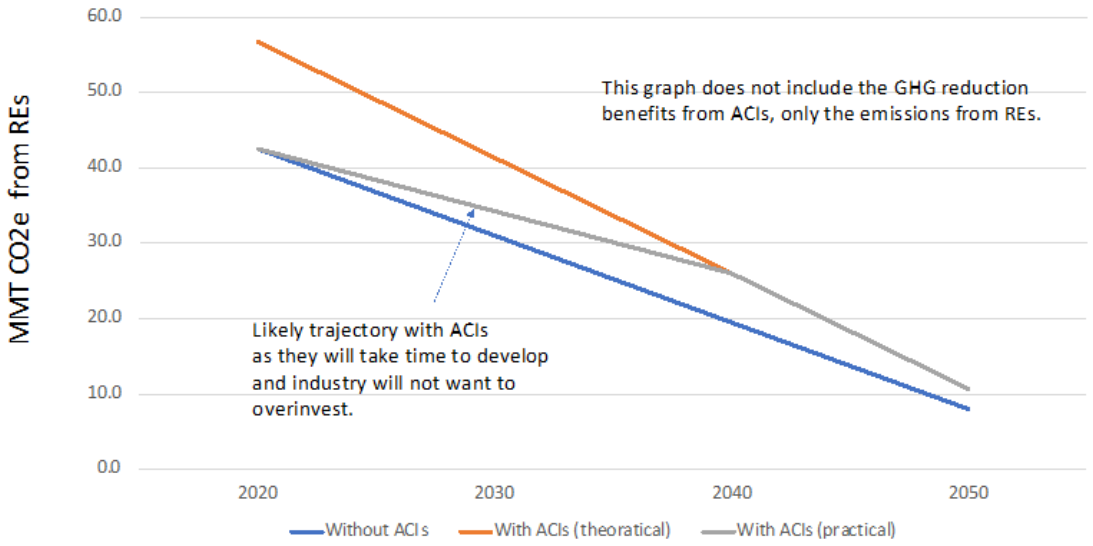
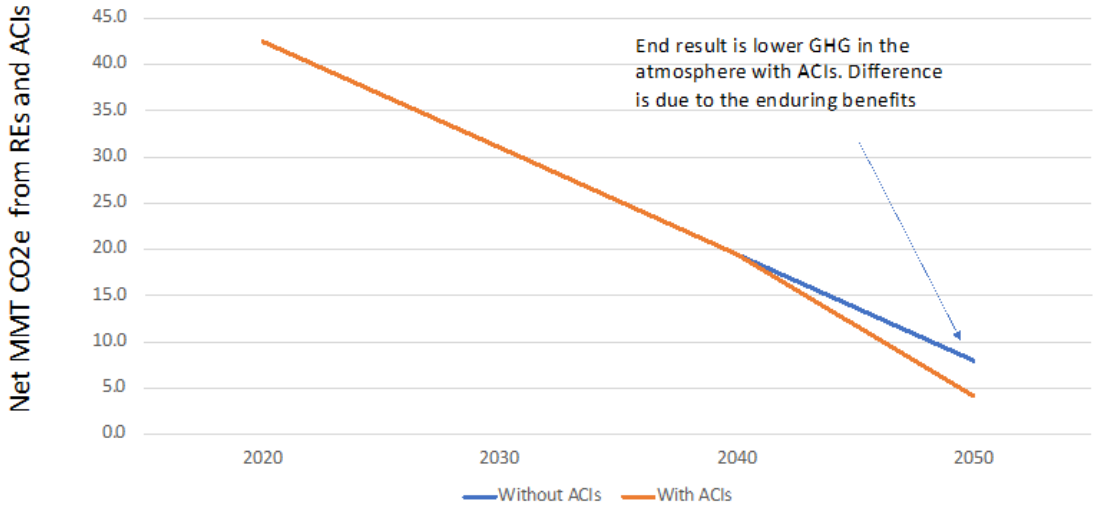


Figure 2 – Net Emissions to Atmosphere from Regulated Entities (REs) With and Without Alternative Compliance Instruments (ACIs) to Offset up to 25% of RE Emissions



OrCAN
Oregon Climate & Agriculture Network

Oregon's Cap & Reduce Program:
Are Farmland Based Carbon Offsets a Viable Alternative Compliance Option?

Oregon Agriculture is Part of the Solution in a Changing Climate

Farmers and ranchers are some of our most important land stewards, they have an important role to play in any solution to a changing climate—from our coastal dairy operators to eastern wheat farmers, from Hood River's Fruit Loop orchards to nurseries and diverse vegetable farms throughout the state. These farms and ranches can implement management practices that both reduce greenhouse gas emissions and increase carbon stored in the soil—providing a clear pathway for Oregon's vision of clean air, clean water, and communities resilient to a changing climate.

For Oregon to achieve its' greenhouse gas reduction goals, soil carbon sequestration on Oregon's working lands is essential. In order to shift the focus of agricultural practices to improving soil health, we need to activate multiple strategies to support farmers—from improved general education to specialized technical assistance, applied research and financial incentives that fit.

While offsets in theory, provide a market incentive, the reality is that farmland-based compliance offset programs have struggled with implementation. They are not able to meet the scale, scope, and urgency of the solutions our climate crisis demands.

There are varied and critical concerns, particularly environmental justice concerns, about including carbon offsets in the design of a Cap & Reduce program. These issues must be thoroughly addressed by engaging the most impacted communities in throughout the state. For the purposes of this paper, OrCAN is not analyzing the merits of carbon offsets as a whole, but is instead focused on the question: are farmland-based carbon offsets a viable compliance option for Oregon?

Challenges of Farmland-based Compliance Offsets

Existing models of farmland-based compliance offsets are limited—this is not a solution that can scale up, particularly in a timely way. In order to meet the necessary rigor of a Cap & Reduce compliance system, strong protocols must be in place for carbon offset projects. Today, despite extensive efforts by the USDA and carbon market developers, few farmland based offset protocols currently exist. The protocols that do exist, are not being used by offset project developers in regulatory or voluntary markets.

The only regulatory-grade, farmland based offset protocol that exists in the US is the rice protocol in California. In 2015, it was approved by the California Air Resources Board. As of September 2020, no projects had been registered. Since rice is not a crop grown commercially in Oregon this is not applicable for our state.

The most Oregon-ready farmland-based protocol is the Avoided Conversion of Grasslands protocol through several voluntary registries[1]. This protocol has limited applicability, primarily to grasslands at

[1] For example: Avoided Conversion of Grasslands and Shrublands protocol with the American Carbon Registry.

risk of conversion to cropland and requires a costly conservation easement to prove that the project is real, additional, and permanent.

As of September of 2020, there are two additional farmland-based, compliance-ready protocols that are almost entirely unused. These protocols include one for nitrogen management and compost additions on grasslands. A recent rudimentary review of carbon offset projects through the US's two leading carbon registries shows that farmland-based carbon projects are not being implemented. Out of the American Carbon Registry's 831 projects approximately 20 are ag lands based.[2] And out of the Climate Action Registry's 640 projects about 14 are agricultural lands based.[3] Of note, most are Avoided Conversion of Grassland projects that exist in regional clusters, including several projects by The Nature Conservancy to conserve ranches in eastern Oregon. Only 2 nitrogen management projects have been registered through the Climate Action Registry.

Farmland-based carbon offsets are cost prohibitive for most farmers.
Monitoring and verification standards for carbon offsets are onerous and expensive. A 2021 economic analysis of a variety of agricultural offsets found that the costs of developing projects across crop types and geography far "outweighed the potential revenue…with the verification accounting for the largest cost, totaling as much as 50% of the total cost of a project."[4]

Break-even costs for carbon offset projects are high. For context, the price for carbon in the US is currently low, even in California that has a cap-and-trade market. As of April 2019, carbon prices ranged from $5 in the Northeastern US to $15 per metric ton of CO_2 in California.[5] California's prices have ranged from $12-17 per metric ton of CO_2 during the lifetime of their current cap-and-trade market.[6] The same economic analysis mentioned above found that, for an Avoided Conversion of Grasslands project in the Prairie Pothole Region (where there's high regional conversion pressure to cropland) the breakeven cost for an offset is $7-$55/tCO_2. The authors found that compost additions to rangelands is even more of an expensive process, with the lowest breakeven cost being $117/t$CO_2$. There have been ongoing efforts since 2012 to reduce these transaction costs (through aggregation and technologies for monitoring and verification) by experts with limited success.

"Even at high carbon prices, the average farm would likely generate only a relatively small percentage of annual revenues from carbon offsets. The financial returns may not be enough to justify long-term investments [for a given farm] in climate-friendly practices." From a recent policy analysis by Robert Bonnie, of the Nicholas Institute for Environmental Policy Solutions, Duke University and Former Undersecretary for Natural Resources and Environment at the U.S. Department of Agriculture. [7]

Questions? Contact author Ashley Rood, Co-Director, Oregon Climate and Agriculture Network: ashley@oregonclimateag.org

[2]Public registry of issued credits accessed Sept 21, 2020: https://acr2.apx.com/myModule/rpt/myrpt.asp?r=112 -
[3]Public registry of issued credits access Sept 23, 2020: https://thereserve2.apx.com/myModule/rpt/myrpt.asp?r=111
[4] Proville, Jeremy and Parkhurst, Robert and Koller, Steven and Kroopf, Sara and Baker, Justin and Salas, William, Agricultural Offset Potential in the United States: Economic and Geospatial Insights (September 25, 2020). Environmental Defense Fund Economics Discussion Paper Series, EDF EDP 20-01, Available at SSRN: https://ssrn.com/abstract=3699751 or http://dx.doi.org/10.2139/ssrn.3699751
[5] Both regions have cap & trade systems. Source: https://www.nytimes.com/interactive/2019/04/02/climate/pricing-carbon-emissions.html
[6] https://climate-xchange.org/2019/10/18/the-other-problem-with-offsets-in-california/
[7] Bipartisan Policy Center, December 2019: Farm & Forest Natural Carbon Solutions Initiative

From: Jenny Dresler <jenny@pacounsel.org>
Sent: Monday, March 1, 2021 10:19 AM
To: GHGCR2021 * DEQ
Cc: Mary Anne Cooper
Subject: OFB comments concerning 2nd Cap and Reduce RAC

Ms. Singh,

Thank you for the opportunity to provide a response to the questions posed during the second rules advisory committee (RAC) meeting for the Climate Protection Program. Today, I write on behalf of Oregon Farm Bureau Federation (OFBF), the state's largest general agriculture trade association, in response to the slide presentation presented by DEQ staff at the February RAC meeting.

Slide 40 of DEQ's presentation suggests that alternative compliance options, also known as offsets, could be obtained by purchasing electric vehicles, constructing electric vehicle charging stations, or installing electric heat pumps in Oregon homes. DEQ's comments suggest that the agency seeks to raise revenue from potentially regulated entities to fund transportation and residential electrification projects, but fails to consider lower cost options or existing programs that sequester carbon dioxide. OFBF cautions that this is not a program to generate revenue but to sequester global greenhouse gas emissions, and we don't believe a focus should be to generate revenue or focus solely on investments in electrification.

Additionally, the list of potential alternative compliance options is incredibly short-sighted and fails to acknowledge the value that Oregon's working lands provide in sequestering global greenhouse gases. Working farm and forest lands provide incredible carbon sequestration value to Oregon communities. Any molecule of carbon dioxide sequestered is a benefit to Oregon families, regardless of whether it occurs in Klamath County, Wasco County, or Multnomah County. We encourage DEQ to prioritize voluntary working lands projects in the conversation regarding potential alternative compliance options.

In sum, we remain very concerned that our members will be faced with increasing costs of doing business due to pass through costs associated with DEQ's regulation of fuels and natural gas, while our members fail to get credit for the enormous carbon sequestration role that Oregon's working lands play, effectively ensuring this program is a lose-lose program for our farmers and ranchers. DEQ has the ability to ensure that this does not occur, and we commit to working with the agency to avoid this outcome for farm and ranch families.

Please let me know if you have any questions or comments related to this feedback. Thank you for the opportunity to comment today.

Best,

Jenny Dresler
On behalf of Oregon Farm Bureau Federation

Jenny Dresler
Director of Grassroots

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February 25, 2021

Oregon Department of Environmental Quality
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VIA EMAIL: GHGCR2021@deq.state.or.us

RE: Comments in Response to Discussion Questions for Rulemaking Advisory Committee Meeting #2

Dear DEQ Staff,

On behalf of the Oregon Forest & Industries Council ("OFIC") and the more than 45 forestland owners and forest product manufacturers that our organization represents, we are submitting the following comments in response to the discussion question posed by the Oregon Department of Environmental Quality ("DEQ" or the "agency") at the conclusion of the second meeting of the Climate Protection Program Rules Advisory Committee (the "RAC") on February 17, 2021.

DEQ has asked for input regarding the following program elements and design: (1) flexibility mechanisms and alternative compliance options; (2) compliance periods; and (3) point of regulation. These comments will address all three of these enumerated topics as well as provide input on the modeling scenarios that the agency outlined at the February 17 meeting.

1. **Alternative Compliance Options and Flexibility Mechanisms**

OFIC would like to express unequivocal support for flexibility to be built into the program. Given the magnitude of emissions reductions that the agency will be mandating through these rules, granting regulated entities alternative options for demonstrating compliance (including, for example, through emissions offsets) will be absolutely necessary, not only for upholding the agency's goal of crafting a program that is cost effective, but for making a program that is even realistically workable. The fact of the matter is certain emissions sources will be unable to meet the targeted reductions through operational changes or installation of technological improvements and emissions control mechanisms alone. These regulated entities will need alternate pathways to attain the mandates set out in the program. Without such mechanisms, the likely result will be relocation of sources to other jurisdictions, which is counter-productive to the goals of the program.

Regarding structuring alternative compliance options to drive investments that will benefit Oregon's impacted communities, we appreciate DEQ's commitment to identifying the disparate impacts that climate change has on vulnerable communities and believe that the agency should strive to craft a program that is equitable and that accounts for these communities and impacts. That said, in the context of alternative compliance options, we believe that this consideration can become misguided if point sources of greenhouse gases are assessed on the basis of potential co-pollutants, which may case acute, localized adverse health impacts, rather than as GHG sources, alone. Oregon has existing air quality programs, including Cleaner Air Oregon, that are designed to address localized health impacts from the emissions of toxic or otherwise harmful air pollutants. Those impacts

are not at issue in this rulemaking and are outside of the purview of the agency when it comes to designing and implementing a greenhouse gas emissions reduction program, and failure to draw this distinction will skew design choices (e.g. disfavoring alternative compliance mechanisms because they do not operate "at the source").

We would also submit that a category of impacts to vulnerable communities that has received very little discussion to date, and that should be weighed as they agency considers program design elements, especially insofar as those elements directly impact the viability of businesses, are the adverse economic impacts that would result if sufficient flexibility is not built into the program and regulated entities opt to move their operations out of state as a result. It is very much in the interest of all Oregonians to have a program that both aims at the reduction of carbon emissions *and* that makes it possible for regulated entities to comply and continue to operate within the state.

2. Compliance Periods

OFIC is in agreement with those that have provided comments in support of a multi-year compliance model. Again, in the interest of arriving at a program that is workable for Oregon businesses, we believe that multi-year compliance periods will go a long way toward providing the flexibility that is needed for regulated entities to implement operational changes and make infrastructure investments to meet the declining emissions requirements. Given that emissions targets will steadily decline over time (as opposed to one single step-down), we do not think that it makes sense to allow for multi-year compliance at the start followed by shorter periods in the future. Regulated entities will have to continuously be making improvements to meet the requirements of the declining cap, so the reasoning that would support multi-year compliance at the outset would remain unchanged throughout phase-in of the program.

3. Point of Regulation

Much of the discussion at the February 17 meeting centered around the appropriate point of regulation for the new program, in particular for natural gas users. The general sense that we got in listening to that discussion is that DEQ staff would prefer to regulate the utility/distributor than regulate at the point of emissions. Although we understand the efficiencies that would result from the standpoint of program administration, we would urge DEQ to reconsider what appears to be a clear preference for regulating at the distribution level. Our reasoning is twofold.

First, by regulating at the point of distribution rather than at the point of emissions – and given that any increased costs to utilities will almost certainly be passed on to the customer – this approach amounts to a de facto carbon tax. Reasonable minds can debate the merits of a carbon tax, but it seems that the agency is not imposing a carbon tax, and we believe that it would be unwise to do so. Which leads to our second reason for urging the agency to reconsider: those entities that will be most clearly harmed by this increased cost of manufacturing/production inputs will be those entities that cannot relocate operations and that are trade exposed. EITEs and TENGUs have long been identified as potential casualties in the face of rising natural gas/energy costs, and a carbon tax (whether in name or substance only) generates just the type cost pressure that is potentially deleterious to these entities/industries. Many of OFIC's forest products manufacturing members fall into this category. DEQ must consider how its policy decision on this point may put negative pressures on these entities.

4. Modeling Concerns

Finally, although the agency did not expressly solicit feedback on this issue, we think it necessary to comment on the modeling approach that DEQ articulated during the February 17 meeting. We still have concerns that the

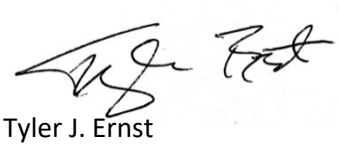
reference case assumptions for the modeling that is being completed may not adequately account for the likely impacts of overlapping programs that are in the process of being implemented (e.g. Cleaner Air Oregon). These programs will, without question, materially affect the state's point source emissions landscape, and failure to adequately account for these effects will result in modeling results that do not accurately describe real-world conditions.

We also have concerns about the agency's decision to run only three modeling scenarios. This inevitably results in certain pivotal design elements not being held constant across scenarios (such as point of regulation and allowable use of compliance instruments) and thereby reduces the overall value of the scenarios in producing a robust comparative analysis. We are concerned that this will result in drawing equivalencies and, ultimately, a failure to adequately account for the true costs and benefits of certain policy choices.

We appreciate the all the work that the agency has put into development of this program, to date, and we look forward to future opportunities to provide input on the rulemaking process, on program design decisions, and on the agency's draft work product as the rules begin to take shape.

If you have any questions about anything stated in these comments, please do not hesitate to let me know.

Sincerely,



Tyler J. Ernst
Policy Counsel, Manufacturing & Resources
Oregon Forest & Industries Council
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MEMORANDUM

To: Richard Whitman, Director, Oregon Department of Environmental Quality
Sent via email: GHGCR2021@deq.state.or.us

From: Oregon Manufacturers and Commerce
Shaun Jillions, sjillions@oregonmanufacturers.org

Date: February 26, 2021

Re: Feedback on Oregon Climate Protection Program: Rulemaking Advisory Committee Meeting 2

Thank you for the opportunity to provide feedback in response to the questions posed by the Oregon Department of Environmental Quality ("DEQ") at the second meeting of the Oregon Climate Protection Program: Rulemaking Advisory Committee ("RAC"). As a reference, Oregon Manufacturers and Commerce ("OMC") is an association dedicated to promoting, protecting, and advancing Oregon manufacturers and their allied partners.

DEQ outlined a series of leanings related to compliance flexibility in its second presentation to the RAC. In response to the agency's questions regarding compliance flexibility, OMC provides the following:

(1) *Which mechanism (i.e., banking, trading, alternative compliance, multi-year compliance period) do you find the most effective for supporting emissions reductions, containing costs, and equitable outcomes? Which do you find the least effective in achieving these goals? Why?*
OMC supports the agency's leanings for banking without expiration and broad trading flexibility. However, we ask that DEQ provide additional details regarding the banking of permits or alternative compliance options in the proposed cap and reduce program. OMC's comments on compliance period lengths and alternative compliance options are outlined below.

(2) *What other compliance period lengths might be considered? Why? What are your thoughts on having a relatively longer compliance period for the program's first compliance period, but shorter ones in the future?*
OMC urges the agency to consider compliance periods of no less than five years. The adoption of greenhouse gas reduction technology does not happen overnight, nor will it occur on a 3-year time interval as proposed in the agency's leanings on slide 43. These technologies, if they even exist, take time to identify, purchase, and permit within the state. OMC encourages DEQ to work with with stationary sources to identify a multi-year compliance period that is achievable and provides Oregon-based companies with sufficient flexibility to weather

economic downturns and unstable market conditions as well as make investments in greenhouse gas reduction technologies if they are available. We also encourage DEQ to consider a longer compliance period at the outset of the program to provide additional time for the market to develop.

(3) *What are your thoughts on whether/how the program could include structuring alternative compliance options to drive investments that reduce greenhouse gases in ways that most benefit Oregon's impacted communities?*
OMC is concerned with several agency leanings related to the use of alternative compliance options. First, the agency should not limit the use of alternative compliance mechanisms to 5%, 10% or 25%, as proposed in the agency's modeling scenarios. Alternative compliance options are critical to help entities control costs and achieve emissions reductions. For some, these tools provide the only cost-effective means to achieve compliance. OMC does not support limiting the use of alternative compliance options to a percentage of regulated entities' compliance obligation, particularly since Oregon is not linking to California's cap and trade program.

Additionally, OMC disagrees with the agency's leaning for alternative compliance options that provide a direct benefit to Oregon communities. Cap and reduce isn't a revenue generating program for local projects, nor is it a mechanism to drive local investment. It's a carbon reduction regulatory program. Greenhouse gas emissions are global pollutants, not local. It should not matter where the molecule of CO_2 is sequestered—Brazil, Iowa, or Hillsboro, OR. Any reduction in greenhouse gases is a benefit to Oregon communities, regardless of where it occurs. Limiting alternative compliance options to those generated Oregon limits the effectiveness of this tool as there likely are not sufficient opportunities for in-state projects, nor are they likely to be cost effective.

In response to DEQ's questions related to the point of regulation, OMC provides the following:

(1) *What are your thoughts on the benefits of regulating all natural gas at natural gas utilities?*
DEQ did not provide stakeholders with enough detail to answer this question. The agency has yet to outline a mechanism for cost containment for industrial natural gas customers, particularly if regulation occurs upstream at the utility. What options for cost containment do energy intensive, trade exposed (EITE) entities have if the utility holds the compliance responsibility? Under this regulatory structure, energy intensive entities will experience compliance costs (through rates) associated with the cap trajectory, but it is unclear whether compliance options will be available to customers of LDCs or gas marketers. Stationary sources cannot operate with significant or unpredictable price swings in the gas market, and there is a significant risk of leakage for EITEs without adequate pathways to compliance under the proposed scenario.

(2) *Do you see any additional benefit to regulating natural gas for large stationary sources at the source, instead of the utility?*
Outside of a broad discussion of compliance flexibility, the RAC has yet to address the treatment EITEs and leakage risk. It is critical that DEQ make provisions to minimize harm to EITEs entities—not just stationary sources with process emissions, but also those that are energy intensive. The Vivid Economics Report, published in 2019, outlines why compliance pathways for EITEs are critical (page 21):

> *"…EITE sectors will be more susceptible to the risk of carbon leakage. In some sectors other factors are more important, such as the ability to innovate, increase product differentiation or react to changes in consumer preferences. For many EITE sectors, however, the size of the production cost base is a key determinant of competitiveness since:*
> *— They often produce a relatively homogeneous good, such as cement or steel products, making customers sensitive to price movements;*
> *— These markets tend to be highly internationalized, and thus companies in these sectors are typically price-takers;*
> *— As a result, in the absence of low-cost emissions reduction opportunities, these sectors could lose significant market share if they pass through the costs associated with carbon pricing."*

There is a significant risk of increasing global greenhouse gas emissions if Oregon's energy intensive manufacturers halt local operations due to higher natural gas costs here than other states.

The agency also has not outlined a mechanism to ensure that entities aren't penalized one way or another based on an arbitrary threshold for the regulation of greenhouse gas emissions. As DEQ considers the appropriate point of regulation and mechanism to achieve compliance, the agency must ensure that industrial natural gas ratepayers are treated fairly and that the unique needs of EITEs are incorporated into any regulatory framework.

As a final point, OMC does not support the revised cap and trajectory outlined in scenario 3. Neither Executive Order 20-04 nor Oregon statute direct DEQ to consider a cap of 90%. The goal of 80% reduction of greenhouse gases in Oregon by 2050 in scenarios 1 and 2 is not achievable with today's technology, which makes proposed 90% reduction in greenhouse gas emissions even more implausible. DEQ should align the cap in scenario 3 with scenarios 1 and 2 to allow for consideration of other variables—regulated sectors, exclusions, natural gas regulation, and alternative compliance options—as it models different policy scenarios and the impact of those policies on regulated sectors and the Oregon economy.

Thank you for the opportunity to provide the agency with feedback during the public comment period. OMC looks forward to future engagement with the DEQ.

From: Jana Jarvis <Jana@ortrucking.org>
Sent: Friday, February 26, 2021 4:02 PM
To: Richard.WHITMAN@state.or.us
Cc: Nicole.SINGH@state.or.us
Subject: GHGCR2021 RAC #2 Comments

Director Whitman,

We appreciate the opportunity to provide comments on our February 17, 2021 meeting of the Climate Protection Program rulemaking advisory committee. The Oregon Trucking Associations (OTA) is focused on productive participation in this process and provides the following comments and questions as you evaluate program parameters.

First and foremost, OTA would request that DEQ consider leakage from the trucking industry in their development of compliance mechanisms. Trucking is a mobile industry that can move to other regions to supply services when and if the costs of doing business in Oregon become prohibitive. Trucking taxes and fees are already significantly more expensive in Oregon than the other forty-nine states, and creating additional barriers could negatively impact the ability for Oregon-based trucking companies to survive. While some companies from outside the state could continue to serve their sector of the industry by leveraging the additional costs in Oregon, many could not. Nearly 80% of Oregon communities are serviced exclusively by the trucking industry for everything from prescription drugs to groceries, there could be communities and commodities that would be left behind.

We are also concerned about the emphasis on a total reliance of the electricity sector as we program greenhouse gas reductions. For the transportation sector, this reliance on requiring electricity as the power source for medium-duty and heavy-duty vehicles fails to recognize the lack of resiliency this strategy would create. If our industry relied solely on electric power, the most recent storms we experienced throughout the Portland area and Willamette Valley would have curtailed our ability to deliver essential goods and supplies during the outages. Emergency services, including police and fire, along with repair services for the many downed power lines, were dependent on other forms of fuel to provide the services we needed. As we plan for the future, it is in our best interest as a state to build sustainable systems that can operate when one or more power sources are unavailable. As DEQ creates this plan, please recognize that we must consider other

forms of transportation power sources, such as renewable diesel, hydrogen fuel cell technology, and others as they become more available and viable.

Finally, the modeling parameters displayed for the transportation sector are also an issue for OTA. The data that was shared was entirely focused on passenger vehicles, and when asked, the consultant indicated they needed to include medium-duty and heavy-duty vehicles and would be developing those parameters as well. On multiple occasions there was reference to "co-pollutants" from the use of diesel but no clear description of how that was being incorporated into the models. For example, since 2007, federal standards have required technology that removes up to 97% or more of diesel particulate matter from exhaust systems in heavy vehicles, but we were unable to determine if this was part of the analysis. OTA would request a clearer definition of how this is being calculated in order to be supportive of the models that are being developed.

The trucking industry needs flexibility as this program develops. While new technology is being developed, it is likely that it will take a decade or more before there is wide adoption of alternative power sources. In the heavy-duty truck market, there are currently four primary manufacturers, but multiple start-ups are testing new power sources. Because there are a variety of power requirements in this industry, there will likely be a variety of solutions provided. Please consider multiple options as a pathway to finding solutions to Oregon's greenhouse gas reduction efforts.

Thank you again for including the Oregon Trucking Associations in this rulemaking process. Please feel free to reach out to me if you need further clarification or have questions.

Jana Jarvis
President & CEO
Oregon Trucking Associations

PACIFIC PROPANE GAS ASSOCIATION

February 26, 2021

Nicole Singh, Senior Climate Policy Advisor
Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232

RE: PPGA Comments - Cap and Reduce Rule Advisory Committee Meeting, February 17, 2021

Dear Ms. Singh:

Thank you for the opportunity to provide feedback on the Oregon Department of Environmental Quality's (DEQ) second Rules Advisory Committee (RAC) meeting of February 17, 2021.

The Pacific Propane Gas Association (PPGA) is the state trade association representing Oregon's propane industry. Our membership includes small multi-generational family businesses and large corporations engaged in the retail marketing of propane gas to Oregonians. PPGA members provide propane to the residential, commercial, agricultural, transportation and industrial markets throughout Oregon. Currently, users of propane have found value in propane's environmental benefits, versatility, and affordability. This is demonstrated in the growth of propane demand across all sectors of the energy market. Our members play a uniquely critical role in rural Oregon where often natural gas is unavailable and electric load is unable to meet all energy needs of farms, homes, and businesses.

PPGA agrees there is a compelling need to combat climate change and believes propane is part of the solution to reduce greenhouse emissions in Oregon. There are many environmental and customer benefits of using propane. Propane is an approved clean fuel listed in the 1990 Clean Air Act. Substituting propane for other fuels is an economical and viable step toward cleaner air. Using propane reduces the greenhouse gas carbon dioxide and air pollutants like carbon monoxide and nitrogen oxide. Propane is extremely efficient because it is employed directly at the point of use and does not require the initial infrastructure investment or maintenance costs of other energy sources.

PPGA offers the follow comments regarding key topics discussed at the second RAC meeting.

Emissions Associated with Electricity Use

In slides presented by the DEQ in 2020, data was provided that the electricity sector accounted for 16.7 million metric tons of CO2 emissions in 2018. Comparatively, data presented at the first RAC meeting showed propane accounted for 2% of emissions of non-natural gas liquid fuels. This equals approximately 482,000 metric tons CO2 emissions statewide. While we understand DEQ's logic to recommend exclusion of electricity emissions to avoid leakage and that DEQ feels it has other mechanisms to reduce electricity emissions, it must be acknowledged that

failure to regulate these emissions will likely limit the benefits of this program in the near term as electricity is a major source of greenhouse gas emissions in Oregon.

Compliance Flexibility Measures

PPGA strongly believes there must be flexibility for compliance and supports banking, trading, robust alternative compliance mechanisms, and multi-year compliance periods. We believe maximum flexibility will help achieve key "equity hopes" that DEQ outlined during the meeting, including how these rules will affect rural communities and avoiding rules that would disproportionally impact small businesses.

Based on experience in California, propane prices increased 10-15 cents per gallon with the passage of cap-and-trade legislation. This will mean higher bills to heat homes and cook for families, higher costs for schools that utilize propane fueled school buses, and higher costs for farmers who produce the agricultural products that feed the state. We are particularly concerned for our customers, especially rural low- and moderate- income families who will see price increases. We are equally concerned that programs like this often do not do enough to help those impacted by increases in fuel prices. Allowing regulated entities maximum flexibility will hopefully help mitigate these potential cost increases.

Alternative Compliance Instruments

While we are supportive of the DEQ leanings towards flexibility, we are extremely concerned about DEQ's discussion topic regarding development or authorization of projects such as:

- Purchasing electric vehicles
- Constructing electric vehicle charging stations
- Installing electric heat pumps in residences.

DEQ's authorization of projects that pick one energy source clearly goes against some key equity hopes outlined by the DEQ. Currently EV's are overwhelming driven by those in urban/suburban areas with higher income levels. While EV adoption in personal vehicles will continue to grow, widespread adoption in rural Oregon or by families of low- and moderate- incomes remains some time away. We are also concerned about the applicability of electric heat pumps in certain areas of Oregon. Heat pumps lose efficiency as temperatures get colder, which is particularly concerning in colder areas often requiring additional electric resistance heaters or even gas backup power. Oregonians rely on propane in these areas because they are confident in its reliability to provide space heating during the coldest temperatures.

Adopting projects that give one energy source preferential treatment will result in regulated entities being forced to pay increased compliance costs which are in turn used to fund projects that put them out of business. PPGA membership is comprised of mainly small, family-owned, businesses that provide good paying jobs to Oregonians—often in rural communities. It is one thing to do our part—which we do and will continue to do—but it is another thing to fund our own extinction by DEQ picking winners and losers.

It is additionally troubling that electrification projects were discussed since electricity emission will not be regulated in the cap and reduce program. While the DEQ believes it is on track to achieve large decarbonization in the electricity sector, many of these assumptions remain assumptions.

As outlined above, PPGA is concerned with some of the alternative compliance options offered by DEQ at the recent RAC meeting. The goal of the program should be greenhouse gas emissions and not electrification. DEQ makes strong assumptions regarding the decarbonization of the electricity sector in Oregon. It is critical for DEQ to remember other sectors including the propane industry are also making innovations to decarbonize its fuel.

All propane (but especially renewable propane) which is currently in the market has a significantly lower CI score when compared to Oregon's statewide electricity mix. Currently, one percent of all propane consumed in Oregon is already from renewable sources. Renewable propane is currently generated primarily as a co-product of renewable diesel, and renewable propane can scale with the increased scaling of that fuel. Renewable diesel is made from feedstocks such as canola and soybean oils, distillers' corn oil (a byproduct of ethanol production), used cooking oil or vegetable oil, tallow, and white grease (mostly from pork). About 900 million gallons of renewable diesel were consumed in the United States in 2019, based on estimates using U.S. Environmental Protection Agency data. Only a fraction of the renewable propane from renewable diesel production is being captured for delivery to the market, as most of it is currently being consumed at the plant, but as an industry we believe renewable propane will continue to grow if markets are available for innovation.

Additionally, new technologies continued to be developed such as the blending of renewable Dimethyl Ether (rDME) and propane. The California Air Resources Board (CARB) has calculated that, when rDME is made from dairy biogas rDME has a CI value of -278. With only a 5% blend of rDME, propane's baseline CI value decreases from 83 to 65, and at a 20% blend the CI value decreases to just 11. We believe propane can achieve a CI score of 0 or near 0.

Pushing alternative compliance instruments that choose one fuel source will limit investments and innovation in decarbonization efforts by current participants in the energy marketplace. The propane industry has little incentive to invest in new technologies or decarbonization projects if DEQ pushes one energy source over another. DEQ should support alternative compliance options that are energy source neutral such as weatherization and equipment efficiency programs. Doing so will ultimately benefit the program, achieve greater reductions in greenhouse gas emissions, and help ensure a resilient and robust energy marketplace.

Multi-Year Compliance Period

The rule should also include a 5-year compliance period. Such a compliance period is necessary to accommodate weather variability and economic fluctuations in the market. For example, in the propane industry in the last five years, we saw annual consumption of between 66.6 million gallons and 97.8 million gallons. This is a large variation over a short period of time. It is best to offer a compliance period that adequately accounts for such variation. Failure to do so may have negative outcomes on regulated entities and may not ensure that customers will still have access

to energy products they need. While DEQ's leaning toward a three-year compliance period is preferable to a one-year compliance period, we remain concerned it does not adequately reflect the market fluctuations commonly seen.

Point of Regulation

The PPGA is generally supportive of the point of regulator being at the fuel supplier level. PPGA members are small businesses often with 5-10 employees. Having a complex regulatory reporting scheme would be a major challenge to many of our small business members. Additionally, we see some challenges in our industry for reporting the emission source level—such as propane grill cylinders and temporary heat at places like construction sites or outdoor dining. Having regulation at the fuel supplier level combined with a 300,000 MtCO2e threshold would capture an overwhelming majority of emissions while limiting the regulatory burden of the program.

Thank you for allowing us to share our feedback. We look forward to continuing to work on this important rule making process.

Sincerely,

Matthew Solak
Executive Director
Pacific Propane Gas Association
matt@kdafirm.com
Office: (844) 585-4940
Cell: (269) 470-8729

February 26, 2021

Steven D. Smith
Director, Climate & Regulatory Affairs
Phillips 66
1075 W. Sam Houston N., Suite 200
Houston, TX 77043
Steven.d.smith@p66.com

Ms. Nicole Singh
Oregon Department of Environmental Quality
Office of Greenhouse Gas Programs
700 NE Multnomah St., Suite 600
Portland, OR 97232

Submitted Electronically to: GHGCR2021@deq.state.or.us

Re: Comments on Oregon Climate Protection Program - RAC Meeting #2

Dear Ms. Singh,

Phillips 66 appreciates the opportunity to comment on the materials and discussion from the second Oregon Climate Protection Program RAC meeting on February 17, 2021. We appreciate the opportunity to be a RAC member and are hearing important viewpoints from other stakeholders.

Support WSPA Comments – We support the comments submitted by the Western States Petroleum Association. Our comments below emphasize key points.

Compliance Pathway for Fuel Suppliers – Phillips 66 is a major supplier of gasoline, diesel and other products to the Oregon market so would have a large compliance obligation in the proposed program. We are increasingly concerned that the program will not provide a clear compliance pathway for fuel suppliers.

Oregon consumer demand for liquid fuels is not within our control. Demand for liquid fuels for transportation, residential and commercial uses, construction, and agriculture will continue. Therefore, compliance options for fuel suppliers appear limited to 1) increasing the biofuel (renewable) content of our supplied gasoline and diesel products, 2) utilizing alternative compliance instruments, and 3) trading. Regarding biofuel content, there are very limited options for increasing the renewable content of gasoline because federal standards limit ethanol content to 10-15% maximum for the vast majority of in-use gasoline engines. Supply of alternative compliance instruments is highly uncertain at

this point. Trading is a critical market feature that we support, but we cannot yet determine market activity.

We therefore suggest that the DEQ and the RAC process devote more time and attention to alternative compliance instruments. In the February 17 meeting slides, DEQ provided examples of purchasing electric vehicles, constructing charging stations and installing electric heat pumps as providing alternative instruments. These are helpful as examples, but we recommend that expanded lists and quantification of potential opportunities be included as part of the rulemaking process and how DEQ envisions projects will be deemed eligible. We need greater transparency and granularity on these opportunities to understand if they represent real compliance pathway options for fuel suppliers.

We support DEQ's evaluation of the use of 5-25% alternative compliance instruments in the ICF modeling. This should provide useful results. However, in parallel, DEQ must start to quantify the real-world supply of these instruments.

Greenhouse Gas Emissions Detail - In our January comments, we noted that greater detail on emissions data would be helpful. We reiterate that as the RAC process proceeds, it will be critical for stakeholders to see even more data granularity to understand the distinctions between:

- Overall state GHG inventory, forecasts and reduction goals
- Cap-and-reduce program GHG inventory, forecasts and reduction goals (program slope).

Some of this will likely be presented in the ICF modeling results. We encourage DEQ and ICF to show assumptions and results with good granularity.

Thank you for this opportunity to submit comments. You can reach me at 832-765-1779 or steven.d.smith@p66.com.

Best Regards,

Steven D. Smith

To: ODEQ GHG reduction taskforce

From: Ralph M Cohen, PE

Subject: Rulemaking Session #2 (02/17/21) comments

Date: 02/18/21

Thank you for the opportunity to participate in the Cap and Reduce program. I am submitting these comments or concerns to the material provided prior to the meeting. I was unable to attend due to the recent electric utility power outage.

I am currently a part-time, independent engineering consultant/concerned citizen with many years of experience across a wide range of industries in mechanical design, energy conservation, and pollution control. As a member of Professional Engineers of Oregon (PEO), I am keeping them apprised of the workshop proceedings, but views and comments I provide are strictly my own and have not been reviewed in advance or endorsed by PEO.

Comments in response to the slides used at RAC meeting 2:

1. Slide 25 – referencing the indicators, specifically "Economic". While identifying a positive such as "increase reliability and security", the current storm with its extensive and long enduring power outages suggests reliability will be lower not higher if the implemented policies rely on broader use of electricity without also making the network more resilient and robust.
2. The material has not yet addressed how caps will be set on entities, e.g. the example set all entities at the same 12 MT/year emission rate. Since ODEQ does not have consumption/emissions information on end users, does that imply that the regulated entities (fuel suppliers and natural gas suppliers) will be able to arbitrarily distribute appliance instruments?
3. Also, the presentation mentioned trading compliance instruments but not the monetary value of instruments on the open market and if the value will be market driven or regulated or a combination. Perhaps, it is still too early to address?
4. I support the alternate compliance ideas expressed on slide 40. But, I again refer to my concern about electrical grid reliability in comment 1; incentivizing homeowners to switch to electric heat pumps can have a downside if the electrical grid is not more reliable than it is today.
5. Slide 56 – I previously provided my views that point of regulation needs to be closer to the end user to leverage change. If ODEQ doesn't do it, then the regulated entities (fuel suppliers and natural gas utilities) will have to do it.
6. Slide 63 – Even if transportation emissions are zero in 2050 (which won't happen), best case reduction would be 48% from 2018. Will there be cases with more aggressive policies modeled to reach 80% reduction target?
7. **Understanding Point of Regulation** paper – I would support regulating stationary sources under either fuel supplying entity or natural gas utility entity, but with the option for individual large stationary sources to request to be regulated directly by ODEQ if that source makes a legitimate case that they have pre-emptively implemented significant GHG reduction programs prior to implementation of these new regulations and therefore would be entitled to a different initial target reduction or even no reduction for a number of years.
   [END of COMMENTS]

February 25, 2021

Oregon Department of Environmental Quality
Office of Greenhouse Gas Programs
700 NE Multnomah St., Suite 600
Portland, OR 97232

Sent Via Email To: *ghgcr2021@state.or.us*

RE: Greenhouse Gas Emissions Program 2021

Dear members of the Environmental Quality Commission, Director Whitman, DEQ staff and members of the Rulemaking Advisory Committee,

Thank you for undertaking the rulemaking advisory committee (RAC) process for development of Oregon's Greenhouse Gas Emissions Program 2021 and for accepting public comment during that process. As we did in our previous comment on January 21, 2021, we retain significant concerns about the direction the program is currently heading in, and while we appreciate the opportunity to voice those concerns now, we are alarmed that DEQ's process and approach have demonstrated no meaningful course-correction in response to earlier comments.

While DEQ says equity is a top priority for the program, the evidence is increasingly clear that the agency intends to provide maximum cost-saving benefits to the industries that generate the majority of Oregon's greenhouse gas emissions and co-pollutants. The program, designed incorrectly and failing to properly center frontline communities, will ultimately lead to BIPOC and frontline communities, including those in rural areas with less access to critical services, bearing the burden of co-pollutants, as well as the very impacts of climate change that the program seeks to address. **We cannot overstate our concern at this time: DEQ must change course, or the agency risks creating an ineffective program that allows pollution to continue and grow in frontline communities across Oregon.**

As we stated previously, we are concerned that the program, as currently designed, will create adverse impacts for underserved and underrepresented communities across Oregon; these environmental justice communities are already suffering the worst impacts of climate change and

will continue to suffer disproportionate impacts in the years to come. Additionally, the program, as currently designed, will very likely not achieve the state's carbon reduction goals or meaningfully address the equity problems associated with co-pollutants such as volatile organic compounds (VOCs) because it allows Oregon's many large, harmful polluters to continue polluting without regulation through the new program. In addition to harmful co-pollutants, communities living near gas plants experience diminished air quality and health outcomes.

DEQ should identify the biggest polluters and create a program that ensures real pollution reductions rather than focusing on ways for polluters to pay for their costs with the greatest ease, thereby saving costs for the investors in polluting industries. Instead, DEQ proposes to exempt the top polluters in Oregon: namely, DEQ proposes to leave out of the program the fracked gas power plants that could produce over ten million metric tons[1] or more of greenhouse gas pollution and other co-pollutants each year during implementation of the program. However, this pollution tally does not include the very large upstream contribution of fugitive methane pollution from compressors, fracking wells, pipelines, and other methane pollution releases in the system that dramatically increase the overall greenhouse gas impact of the fracked gas power sector. In exempting fracked gas electric plants, DEQ profoundly undermines the credibility of the program. It skews the program dramatically away from capturing the real pollution impact of the electricity sector, Oregon's share of the fracked gas industry, and the impacts of these pollution-generating activities on frontline communities.

In that vein, we offer the following specific policy notes and recommendations. We recognize that DEQ has already expressed certain "leanings," and like others on the RAC, we are concerned that these "leanings" represent more than an initial thought process. Rather, these "leanings" have already sculpted the scenarios considered, the discussion questions asked, and the confirmation bias we see in DEQ's analysis and assumptions about how flexibility mechanisms, exemptions, and other basic program design features will impact Oregonains.

Failure to address these significant issues now will likely result in a program that will not only be met with disapproval from the public and likely do harm to frontline communities, but will fail to meet the state's overall climate goals.

[1] See https://www.oregon.gov/deq/aq/programs/Pages/GHG-Emissions.aspx. DEQ Greenhouse Gas Reporting Data for 2019. Note that Boardman Power Plant is now offline, but PGE Carty plant remains online, and we estimate 1.2 million tons of greenhouse gas pollution per year from this facility, based on information provided to EFSC and DEQ in previous permitting processes. The estimate of 10 million tons of greenhouse gas potential also includes the potential addition of approximately 1 million tons from Sumitomo's proposed Perennial fracked gas plant in Umatilla County, based on the company's application to EFSC in 2014 and 2015, Exhibit Y. However, this pollution tally does not include the very large upstream contribution of fugitive methane pollution from compressors, fracking wells, pipelines, and other methane pollution releases in the system that dramatically increase the overall greenhouse gas impact of the fracked gas power sector.

I. The Modeling Approach for the Greenhouse Gas Emissions Program 2021 Must Capture and Prioritize Impacts on Frontline Communities.

DEQ is fundamentally misrepresenting its approach to addressing equity goals in the development of the program. For instance, DEQ's predominant concern about "leakage" and the potential for fracked gas power to move to out-of-state producers (which is by no means assured or unaddressable through further action at the PUC or more skillful rulemaking or legislation) places costs above concerns about huge quantities of smog-forming pollution being emitted in a single airshed in Morrow and Umatilla counties. These counties are the location of four of the state's top greenhouse gas polluters, all fracked gas electric plants.

DEQ must adjust the scenario development approach to solve first for the problems of greenhouse gas pollution and co-pollutants, and their impacts to BIPOC and frontline communities. DEQ should capture data that correlates community-level indicators of how low-income, BIPOC, and other marginalized communities are experiencing increased exposure to environmental pollution, including the co-pollutants of greenhouse gases (GHGs) like diesel particulates and VOCs. As currently designed, and as we addressed in our previous January 21, 2021 comment, the modeling approach DEQ intends to rely on uses state and national data—data that fails to capture community-level impacts. As we noted previously, you can see an example of this type of work in the Washington Department of Health's Environmental Health Disparities Map.[2] By combining demographic and environmental health data, Oregon would be able to see the problems that it purports to address in the greenhouse gas program. Further, we are concerned that DEQ plans to use particulate matter as its main proxy for co-pollutant issues. Rather, DEQ should look at a larger suite of co-pollutants, including smog-forming and cancer-causing VOCs, other HAPs, and other criteria pollutants. These data are available to DEQ. And, as we noted previously, DEQ routinely over-permits plant site emission limits for these co-pollutants. Hence, the greenhouse gas regulation program offers an important opportunity to reduce co-pollutants. DEQ is poised to miss this opportunity with its current approach, instead compounding the issue for frontline communities.

DEQ's current approach ignores the concerns raised repeatedly in earlier comments. We noted in our previous comments, that in DEQ's own words, one of the primary program goals is to "[p]rioritize equity by promoting benefits and alleviating burdens for environmental justice

[2] Washington Department of Health. 2021. Environmental Health Disparities Map. https://www.doh.wa.gov/DataandStatisticalReports/WashingtonTrackingNetworkWTN/InformationbyLocation/WashingtonEnvironmentalHealthDisparitiesMap. "The map was a collaborative project that took several years to develop. It went live to the public in December of 2018. Those involved in the collaboration include: University of Washington's Department of Environmental and Occupational Health Sciences, Front and Centered, Washington State Department of Health, Washington State Department of Ecology, and Puget Sound Clean Air Agency. The effort included listening sessions with communities in Washington State. The communities gave input that informed development of the map."

and impacted communities." To achieve that goal, DEQ must focus its sensitivity analyses on the issues the program is designed to be sensitive to—namely, the potential health, safety, and climate impacts of fossil fuel pollution. Measuring the sensitivity and reactivity of the model for these factors is the best use of RAC time and resources and the most direct way for DEQ to achieve its stated goal. To date, DEQ has done the opposite, minimizing discussion and analysis of core equity issues and impacts to frontline communities.

DEQ offers unsupported statements to suggest that program elements that are meant to benefit polluters will, in fact, benefit frontline communities. This creates both confusion and frustration in the rulemaking process, particularly because DEQ makes these claims against the actual lived experience of Oregonians and the observed track record of similar flexibility mechanisms and exemptions in other states. Specifically, where polluters have the ability to be exempt, to trade their pollution impacts, or to use a very high level of offsets to address their greenhouse gas pollution and co-pollutants, then the burdens of ongoing greenhouse gas pollution and co-pollutants will continue to fall on those already impacted- namely, environmental justice communities throughout Oregon.

For example, in California, trading, banking, and offsets in the program have allowed pollution in frontline communities to continue to rise.[3] Earthjustice addressed this issue recently in detailed comments regarding the development of a more robust environmental review process for major fossil fuel projects in Washington state. The Earthjustice comment letter, co-signed by a coalition of groups including Columbia Riverkeeper, stated,

> Recent studies show that ignoring equity had the effect of allowing an increase in fossil fuel production, greenhouse gas emissions, and air pollution emissions in low-income communities and communities of color.[4] The highest GHG emitting facilities in California, including petrochemical facilities and cement factories, are predominantly located in communities of color, and 52% of these top-emitting facilities actually increased their emissions under California's policy.[5] The majority of facilities had higher annual average local GHG emissions after implementation of the policy, as compared to two years prior to implementation.[6] This local increase in GHG emissions was accompanied by an increase in hazardous air co-pollutants including PM2.5, NOx, SOx,

[3] L. Cushing, et al., *A Preliminary Environmental Equity Assessment of California's Cap-and-Trade Program*, USC Dornsife Program for Environmental and Regional Equity, (2016), https://dornsife.usc.edu/assets/sites/242/docs/Climate_Equity_Brief_CA_Cap_and_Trade_Sept2016_FINAL2.pdf.
[4] *Id.*
[5] L. Cushing, "Carbon trading, co-pollutants, and environmental equity: Evidence from California's cap-and-trade program (2011-2015)," PLOS Medicine 15(7), (2018), https://doi.org/10.1371/journal.pmed.1002604.
[6] *Id.*

and VOCs.[7] This is because facilities found it cheaper to purchase credits to offset GHG emissions, than to adopt technologies that reduced GHG emissions at the facilities.[8]

Recognizing the outcomes of a flexible program in California, DEQ must be aware of and actively develop a program that directly addresses where communities, mostly BIPOC and low-income, see pollution.

Here are a few examples of DEQ making unsupported assumptions about "benefits" to environmental justice communities, and DEQ's equity goals, in its proposed program:

- DEQ asserts, but provides no evidence for, an assertion that pollution compliance trading will increase the pace of greenhouse gas reductions so quickly that this will reduce the burden of co-pollutants on BIPOC, low-income, and other frontline communities. DEQ's assertion conflicts with the lived experience of Oregonians in these communities, many of whom are represented on the RAC and have spoken to this issue already. Further, DEQ's assertion conflicts with information from other states such as California, where greenhouse gas reduction programs continued to allow for pollution in frontline and environmental justice communities.[9]

- DEQ makes similar arguments with respect to banking of pollution reduction credits. The flexibility and long-term banking of pollution allowances will further exacerbate the potential for hot spots to arise both in space and time. For instance, in certain years (say, a very bad smoke and fire year, or a winter with severe air inversions), a polluter may have the flexibility to exceed its normal pollution levels because of banked allowances. In so doing, they could disproportionately harm nearby or downwind communities. And, as we noted in previous comments, DEQ's air quality program already over-allocates pollution permits for a wide range of polluters, including those who emit both particulate matter and VOCs. DEQ's failure to consider this dynamic first and foremost shows that the program's consideration has been profoundly flawed from the outset, and DEQ has misrepresented its commitment to equity unless it course-corrects soon.

- Oregon's own carbon dioxide standard, implemented through EFSC's siting rules, offers an example of alternative compliance mechanisms operating in ways that may undermine the goals of DEQ's program. Unless DEQ is careful, the program risks replicating flaws that emerged in the application of EFSC's carbon dioxide standard. First, carbon offsets have been and remain underpriced, and this

[7] *Id.*
[8] *Id.*
[9] *Id.*

problem went unaddressed for years by ODOE. Similarly, alternative compliance mechanisms in DEQ's new program must be properly attuned to sending the right price signal to the market to disincentivize carbon pollution. By underpricing carbon pollution, the EFSC standard failed to offset as much carbon as it should have.

Second, Oregon's experience with this type of alternative compliance (offset) program has demonstrated a clear risk for malfeasance. Sumitomo Corporation sought to avoid increased carbon fees implemented pursuant to the Governor's Executive Order 20-04, increasing the monetary offset rate, by rushing to illegally commence roadwork in the summer and fall of 2020. By pretending to begin "construction," Sumitomo avoided increased carbon fees. Oregon's failure to implement a relatively simple, straightforward, carbon dioxide standard leaves serious doubts about whether DEQ's new program will function well if it offers a wide range of opportunities for bad actors like Sumitomo to attempt to game the system - to break certain laws (the Clean Water Act or Clean Air Act, for instance) in order to avoid higher pollution fees elsewhere. DEQ's current proposed system tempts manipulation.

While ODOE's program may have had some impact in reducing overall carbon emissions, the program has not achieved the equity goals that DEQ now seeks to achieve in the new program. Accordingly, by focusing excessively on banking, trading, and a high level of offsets (where a much lower level of alternative compliance mechanisms may be more appropriate), DEQ fails to address the actual experience of Oregon communities.

The outcome of Oregon's current carbon dioxide standard, as well intentioned as it may have been at the time of its establishment, has the following effect: there remains a significant cluster of fracked gas polluters in Morrow and Umatilla counties. This fracked gas pollution cluster is poised to expand significantly (by approximately 1 million tons of GHGs each year, and dozens of tons or more of VOCs each year) in the area. The expansion may occur in part because ODOE has chosen to look the other way while Sumitomo Corporation brazenly broke the law by illegally beginning road work without a required construction stormwater permit, all in order to sidestep Oregon's carbon regulations.

II. DEQ Must Include Fracked Gas Power Plants in the Proposed Program.

Above: Site of Sumitomo Corporation's proposed Perennial fracked gas power plant in Umatilla County, Oregon and neighboring Hermiston Generating Plant. February 6, 2021. Photo by Columbia Riverkeeper.

DEQ must include fracked gas power plants (such as the Hermiston Generating Plant, a fracked gas power plant, also the site of Sumitomo's proposed Perennial fracked gas plant, pictured above) in the Greenhouse Gas Emissions Program. Excluding the largest climate polluters in the state will result in an ineffectual program that fails to meet the state's climate goals and ignores the significant harm these facilities pose to frontline communities, undermining DEQ's equity goals. It is simply not credible to design a greenhouse gas reduction program that allows the top polluters in Oregon entirely off the hook. The proposal undermines DEQ's purported "cost" goals because the proposed exclusion of fracked gas power plants also disproportionately burdens other smaller polluters who will have to pay more as a result of the preferential treatment given to Oregon's top six polluters.

According to the most recent data available from DEQ, the leading polluters in Oregon all emit roughly one million tons or more of carbon pollution each year, and all of them are fracked gas power plants.[10]

[10] Oregon Department of Environmental Quality. 2021. Greenhouse Gas Emissions Reported to DEQ https://www.oregon.gov/deq/aq/programs/Pages/GHG-Emissions.aspx. Note: PGE's Boardman coal plant has since been taken offline, and so all the remaining largest polluters in Oregon are fracked gas power plants. PGE's Carty fracked gas plant produces over 1 million tons of greenhouse gas pollution each year, depending on hours of operation. The emission levels of all the plants vary from year-to-year depending on their hours of operation.

Fracked Gas Power Plant Facility	County	POLLUTION (TONS/YEAR)
Portland General Electric Company - Port Westward I	Columbia	1027715
Klamath Cogeneration	Klamath	1350082
Portland General Electric Company - Boardman (CLOSED)	Morrow	2543943
Portland General Electric Company - Carty	Morrow	1152211
Portland General Electric Company - Coyote Springs	Morrow	1364780
Hermiston Generating Company, L.P.	Umatilla	1154923
Hermiston Power LLC	Umatilla	1700894
Perennial Power LLC (PROPOSED)	Umatilla	1000000 (approx)
Source: https://www.oregon.gov/deq/aq/programs/Pages/GHG-Emissions.aspx		

Exempting gas plants increases the program burden on others: if the largest polluters are not paying for their greenhouse gas pollution, others could be forced to pay more. Exempting fracked gas power plants also exacerbates co-pollutant problems by allowing large quantities of pollutants like VOCs to continue to pollute impacted airsheds such as Umatilla County and the Columbia River Gorge. Furthermore, to exempt the top six polluters in the state would upend the purpose and impact of the program altogether. This decision would obviate the reason for this rulemaking—to achieve significant greenhouse gas emissions reductions—by placing the burden of the regulation on everyone except the largest polluters. Worse yet, the exemption would continue to promote a clustering of major fracked gas polluters in Morrow and Umatilla counties. This airshed already faces limited air quality from stagnant air, inversions, and the presence of power plants, confined animal feeding operations (CAFOs), and other pollution sources that should pose concerns for DEQ's air pollution. Having failed to address these issues adequately through its air pollution program, DEQ now proposes to double down on the problem by exemption this region's biggest polluters from regulation of their greenhouse gas emissions, thereby also propping up emissions of co-pollutants such as smog-forming VOCs, particulate matter, and other pollution.

We have heard DEQ argue that fracked gas power plants should be exempt because regulating them may cause "leakage" to other states. DEQ fails to provide a clear economic analysis to demonstrate why this is true, why it conflicts with the goals of the program (which is to reduce greenhouse gas pollution and achieve equity goals in Oregon), and why these issues cannot be addressed through additional rulemaking and regulation through the Public Utility Commission. DEQ Director Whitman repeatedly stated that DEQ's program may have to rely on other regulations as a backstop to prevent additional fracked gas power from undermining the state's climate goals. In doing so, DEQ offers a series of mixed and conflicting excuses for justifying the fracked gas exemption. If DEQ is serious about regulation of major greenhouse gas polluters in Oregon, they must start with the difficult work of regulating the biggest polluters -

namely, fracked gas power plants. The "leakage" issue must be addressed through skillful regulation by the PUC or through other means and should not be used as an excuse to design an inefficient program.

As currently designed, the program risks Oregon becoming a purveyor of dirty, fracked gas power for the entire region. With six, and potentially seven, major fracked gas power plants online, Oregon could potentially call itself "100% Clean" while operating fracked gas plants for consumers in other states. DEQ's proposed exemption would incentivize this dynamic, driving Oregon to be the weak link in the West Coast's climate efforts. Lacking a state environmental policy act (SEPA), in the habit of over-allocating pollution permits for criteria and hazardous pollutants (particularly in Umatilla and Morrow counties), and having granted a broad exemption to Oregon's greenhouse gas regulations, DEQ's rulemaking throws Oregon's doors open to fracked gas power for decades. Combined with ample banking and trading in other sectors, environmental justice communities in Oregon could face decades of continued pollution from fracked gas power plants throughout the state. DEQ's current program proposals risk making a bad problem, worse.

The State of Washington faced a similar argument recently when a major fracked gas polluter asserted that, if they were not allowed to emit millions of tons of pollution in the State of Washington, overseas polluters might turn to coal. Backers of the Jordan Cove LNG project also attempted to make the same argument, asserting that the project (with the potential to facilitate up to 52 million tons of greenhouse gas pollution each year) would displace coal without addressing potential displacement of cleaner technologies, or the need to transition away from carbon-based fuels entirely, and quickly. The logic of fossil fuel proponents fundamentally undermines the urgency of the climate crisis, and DEQ should not adopt it in this rulemaking. In grappling with the question, Washington's Ecology Director Laura Watson wrote,

> We are then left with a difficult decision: Do we approve a facility we know will be bad for Washington's environment and make it difficult or impossible for our state to meet its statutory emissions limits based on the potential for some alternate scenario to be even worse?
>
> Ecology is a state regulatory agency. It is not our place to set industrial policy or to pick winners or losers. Our job is to apply Washington's environmental laws fully and impartially. Likewise, as scientists, we fervently believe that greenhouse gas emissions need to be reduced sharply. But as state regulators, our ability to reduce those emissions is determined by the authority delegated to us by law.
>
> Viewed through this lens, I believe we were left with no other choice than to deny the permit for the Kalama project. The known and verifiable emissions from the facility

would be extremely large and their effects on Washington's environment would be significant and detrimental.[11]

Rather than cementing flawed logic into Oregon's rules and exempting an entire, highly polluting sector from regulation, Oregon regulators should learn from Washington's experience and consider first and foremost the known and verifiable impact of the fracked gas polluters at hand.

Our region must move towards clean energy with as much immediacy as we can possibly achieve it. An exemption for fracked gas power plants undermines the public's faith in Oregon's seriousness about achieving this goal, its prioritization of public health and climate goals over polluter interests, and the long-term viability of the program's implementation. To put in even clearer terms, in denying the Kalama permit, Washington Ecology Director Laura Watson wrote that our, "shorelines and coasts, rivers and streams, snowpack and reservoirs, are all at serious risk from climate change, and greenhouse gases, like those produced from fossil fuel use, are driving those changes."[12] For the frontline communities that depend on the stability and productivity of these systems for clean water, sustenance, and shelter, the stakes are very high for addressing properly the role of major polluters in DEQ's rulemaking.

Lastly, to the argument that fracked gas power plants are already regulated pursuant to the Oregon Department of Energy's (ODOE) carbon dioxide standard, we addressed this in our previous January 21, 2021, comment. This argument that they are "double regulated" lacks validity. Oregon's carbon dioxide standard is poorly administered and ineffective, as demonstrated recently by ODOE's handling of Sumitomo's Perennial WindChaser Station facility.[13] Additionally, ODOE's carbon dioxide standard dramatically underprices carbon pollution and thus fails to properly signal the impact of carbon pollution to the market. The current cost is $2.85/ton, while the social cost of carbon exceeds $50/ton, and offsets purchased by the Climate Trust of Oregon typically cost significantly more than $2.85/ton (meaning the standard under-achieves its desired carbon offset rate).[14] As long as carbon pollution remains underpriced, there is little market incentive for fracked gas power plants to meaningfully reduce their emissions in the same way DEQ's program would require. DEQ should correct this problem by proposing to fully regulate all emissions—methane emissions as well as carbon dioxide emissions—from fracked gas power plants and the infrastructure that feeds them. By allowing

[11] "Behind the Decision: What Led to Denying the Kalama Permit." January 19, 2021. https://ecology.wa.gov/Blog/Posts/January-2021/Behind-the-decision
[12] Id.
[13] *See* Ted Sickinger, *Conservation groups say state regulators are allowing power plant developers to avoid carbon fees* Oregonian, Aug. 31, 2020, *available at* https://www.oregonlive.com/politics/2020/08/conservations-say-state-regulators-are-allowing-power-plant-developers-to-avoid-carbon-fees.html
[14] "Expert Consensus on the Economics of Climate Change." Environmental Defense Fund. 2020. https://www.edf.org/sites/default/files/expertconsensusreport.pdf

any part of the gas supply system to escape regulation, DEQ would be unfairly burdening other, smaller polluting entities including greenhouses and fertilizer-using farms.

Despite Oregonians raising this issue with DEQ, the agency offers no scenario for review by the RAC that meaningfully regulates the worst polluters in the fracked gas sector. Rather, DEQ proposes to place the burden of fracked gas regulation on ratepayers who use gas for heating greenhouses or other home heating purposes. This is profoundly unfair. We urge DEQ to balance the equity, emissions reductions, and cost elements of its program more adequately by bringing fracked gas power plants into the regulatory framework immediately. To continue to exclude them from analysis and consideration risks undermining the entire program.

III. DEQ Should Reconsider Key Program Elements to Re-Align the Rulemaking With Values Set and Expressed Earlier in the Process

To demonstrate that DEQ is seriously considering the equity values it purported to address, DEQ should undertake additional scenario development that assesses:

- Limited trading and banking (or none at all, if this is what is necessary to protect the health of frontline communities). If included, the program must have a stopgap measure beyond financial gain to make sure that frontline communities don't get harmed, first.

- Added sideboards to address Alternative Compliance: what hard rules will be in place to ensure that frontline communities don't bear the brunt of the offset pollution, and that benefits are directed to in-state and environmental justice communities? The goal of these alternative compliance mechanisms must actually be GHG and co-pollution reductions for frontline communities, not just flexibility and cost-savings for polluters.

- Added layers of analysis to measure and project how much co-pollution will occur by allowing trading, banking, and huge exemptions of the electric sector. Does this approach achieve the sharp, downward trajectory that Oregon purports to gain in this greenhouse gas program? Does the program truly achieve equity goals? Are smaller polluters burdened with larger costs than the top polluters in Oregon?

- "Leakage" and other cost concerns kept in proper context, and not elevated over equity values. The "leakage" question is analogous to the "displacement theory" rejected recently by Ecology in WA State in its review of the proposed Northwest Innovation Works fracked gas-to-methanol refinery in Kalama, a project that

would use roughly half the gas that the entire state of Oregon uses each day. In denying a major permit for the fracked gas-to-methanol refinery, the Department of Ecology acknowledged that market dynamics were inherently difficult to predict, and speculation on future conditions did not provide an adequate rationale for approving a project that would undermine the state's greenhouse gas reduction goals and lead to pollution in the community. The Department of Ecology wrote that the agency,

> ...recognized the uncertainty inherent in trying to predict how markets will behave decades into the future, and how future policy decisions might impact those markets. Due to this uncertainty, the market analysis did not alter Ecology's determination that greenhouse gas emissions associated with this Project are significant.[15]

Ecology concluded that,

> The quantity of the Project's emissions and the length of time those emissions would occur will impede the state's ability to meet the emission reduction requirements provided in RCW 70A.45, and would therefore exacerbate climate change impacts to shorelines in the state.[16]

Oregon should learn from Washington's rationale in balancing nebulous future concerns over leakage with upfront, tangible, predictable pollution impacts to frontline communities. The latter should weigh more heavily than the former. DEQ would seriously err by leaving the state's largest polluters - all fracked gas power plants - out of its proposed greenhouse gas program. Oregon DEQ can learn from what others have done: we are not uniquely attempting to solve these problems.

IV. Conclusion

Despite the goals DEQ expressed at the outset of the rulemaking, we are concerned that DEQ's process has been distorted by pressure to exclude and favor the largest polluters in Oregon, such as fracked gas power plants. Further, we are concerned that the program, as currently designed, will not adequately address the negative impacts to frontline communities without placing these concerns at the center of DEQ's program development - rather than saving money for polluters.

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[15] Washington Department of Ecology's decision letter disapproving the project, January 19, 2021: https://ecology.wa.gov/DOE/files/0b/0b8ab19a-75a9-41db-9c5c-9e5505bb4bfe.pdf. P. 4

[16] Id.

DEQ should reframe its program, immediately, rather than risking the cementation of major flaws through a narrowing of scenarios and design options that foreclose options that would actually solve the issues central to the rulemaking. DEQ should:

1) Focus on addressing the climate and co-pollutant impacts of greenhouse gas pollution to environmental justice communities, and work to direct benefits of the program towards these communities.

2) Regulate the electric sector, including fracked gas power plants.

3) Regulate polluters in a manner that solves first for reducing greenhouse gas emissions while also reducing burdens of co-pollution on environmental justice communities. This will require keeping the flexibility mechanisms limited to a level that allows for reduction of co-pollutants in environmental justice communities, and thus far DEQ has not proposed any scenario that centrally addresses this goal. Solve for this problem first, or else the equity goal cannot be achieved.

4) Within these bounds, DEQ should work to fairly distribute costs across the program, not unfairly burdening certain polluters over others (small businesses and small greenhouse growers, for instance, over major fracked gas power plants that are the largest polluters in Oregon).

By course-correcting now, we can work together to bring a calm, rational, and protective approach to the rulemaking that will benefit BIPOC and rural communities, the climate, and job growth. It starts by asking the right questions and solving the right problems. Let's focus on solving community problems and air quality issues, not protecting the bottom line of the fossil fuel companies that do not have to live with the worst impacts of their pollution.

Sincerely,

Allie Rosenbluth, Campaigns Director, Rogue Climate, RAC member

Dan Serres, Conservation Director, Columbia Riverkeeper, a member of the Power Past Fracked Gas Coalition

LMI Environmental, LLC

February 26, 2021

VIA EMAIL

Colin McConnaha
Manager, Office of Greenhouse Gas Programs
Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Re: Comments on DEQ's Cap and Reduce Rule Advisory Committee February 17, 2021 Meeting

Dear Mr. McConnaha,

Thank you for the opportunity to comment on DEQ's materials presented at the February 17, 2021 Cap and Reduce Rule Advisory Committee (RAC) meeting. On behalf of Roseburg Forest Products and other affected manufacturing companies, we offer the following comments:

1. Flexibility for achieving compliance is essential:

   DEQ has asked which mechanism will be most effective for supporting emissions reductions, containing costs and will result in equitable outcomes. It may not be possible to identify a single, most effective mechanism since the needs, opportunities or utilization feasibility will likely not be consistent amongst those in the regulated community. Accordingly, it is important that DEQ allow the maximum utilization of each mechanism. As mentioned in earlier comments, upon rule adoption Oregon will be one of the first states in the nation to impose a carbon reduction regulation on its stationary manufacturing facilities. This regulation will undoubtedly result in ever-increasing costs for Oregon's manufacturing base. These increased costs will make it difficult for these manufacturers to remain competitive in their respective markets, particularly since there are so few states who are attempting similar regulatory programs.

   Accordingly, it is essential that Oregon provide its manufacturing sources maximum flexibility to achieve compliance. To that end, we appreciate and support DEQ's leaning toward allowing:

   a. Banking of compliance instruments - Manufacturing is not static from month to month or year to year. Allowing facilities to bank unused compliance instruments for use in later compliance periods will allow for market and production fluctuations that are common in

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any sector.

b. Trading, buying and selling of compliance instruments – Allows facilities that are seeing market growth to meet their compliance obligations while not increasing overall greenhouse gas emissions within the state. Allowing facilities to trade or buy and sell amongst each other will also encourage emission reductions from those sources who have feasible methods to do so, while allowing continuing viability of other sources who have less feasible means to achieve emission reductions.
c. Alternative Compliance Options (ACO) – will provide a mechanism for sources to engage in or seek other means to reduce emissions in order to satisfy their compliance obligation. ACO is a very important component to be included in any carbon reduction regulation and should be utilized to the fullest extent possible in order to achieve the greatest amount of emission reductions possible.
d. Multi-Year Compliance Periods will be essential for facilities who are subject to regulation under this program for the following reasons:
    i. Manufacturing is not static from year to year. Establishing multi-year compliance periods will allow facilities to better manage compliance over the longer term rather than having a potentially fatal short-term occurrence due to fluctuating market conditions.
    ii. Physical improvements/modifications that may be necessary to achieve lasting emission reductions take time to identify, engineer, budget, permit and implement. The need for adequate time to undertake projects is particularly important given the long lead time needed as a result of the recent Cleaner Air Oregon proposed rule changes which will likely slow permit issuance. It is unreasonable to expect sources to implement meaningful emission reduction projects in short timeframes. Doing so, may result in reducing production as the only achievable means to comply.
    iii. We encourage DEQ to adopt a 5-year compliance period to coincide with the source's Title V permit renewal cycle. Adopting such an approach would allow adequate time for sources to plan, permit and implement meaningful emission reduction strategies and would also create an efficient method for DEQ to review and determine compliance.

    DEQ has asked whether it might be acceptable to establish a longer compliance period early in the program and shorten it as the program evolves. We assert that longer compliance periods are appropriate to implement and maintain throughout the duration of the regulatory program. As time goes on, and the easier-to-achieve emission reductions have already been identified and implemented, facilities will likely face emission reduction projects that are more complex which will require more time. Reducing the compliance period in later years will only serve to exacerbate the challenge of identifying and implementing emission reduction strategies.

2. Point of Regulation:

    DEQ has requested feedback as to whether the point of regulation should occur at the fuel

supplier or at the emission source. We need additional information about how each approach would be implemented before we can provide meaningful comment.

3. Cost Containment:

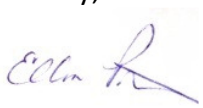
   It is important for DEQ to be mindful of the potential for increasing energy costs as a result of this program. Depending on the point of regulation and how the preferred approach will be rolled out (which we have not yet covered), energy prices could increase significantly. It would be unwise, unfair and increase the likelihood of leakage if the bulk of that financial burden was placed on stationary sources.

4. Emission Intensive and Trade Exposed (EITE) Manufacturers:

   The RAC has yet to discuss the future for EITE manufacturers, but we feel it is again important to mention them here. As DEQ is aware, EITE manufacturers will be placed in a difficult competitive position once this carbon reduction program is adopted. These sources will be particularly vulnerable to competition from sources outside of Oregon. As such, we strongly encourage DEQ to recognize EITE sources in this program and provide them with long-term protection from being potentially irreparably harmed by unintended consequences. At the very least, we reiterate our earlier suggestion that DEQ provide adequate compliance instruments in a duration long enough to allow these sources to identify feasible methods to remain viable.

Again, thank you for the opportunity to provide these comments. We look forward to continuing working with you.

Sincerely,



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Southern Oregon Climate Action Now

SOCAN

Confronting Climate Change

https://socan.eco

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February 21, 2021

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Colleagues:

I write on behalf of over 1500 Southern Oregonians who are Southern Oregon Climate Action Now. We are committed to promoting understanding and awareness about the science of global warming and its climate change consequences as well as promoting individual and collective action to address it. I offer the following comments regarding the 2nd Rulemaking Advisory Committee meeting held on February 17th 2021.

Before offering my comments and concerns, I would first like to re-emphasize our appreciation to DEQ staff for their concerted and transparent efforts to develop a meaningful Oregon Climate Protection Program to reduce emissions while promoting carbon sequestration and also to the members of the RAC, most of whom clearly come prepared to assist in this endeavor.

Accurate Science: Carbon vs Greenhouse Gas

During discussions of the establishment of the DEQ Rulemaking Advisory Committee, I repeatedly urged that it include at least one scientist familiar with the basic science of global warming and climate change. Unfortunately, DEQ and the EQC were committed instead to ensuring representation from an array of stakeholder groups rather than including representation from science. The result has become evident during RAC meeting 1 and 2 discussions where it is clear that several members of the RAC do not understand the basic science, and thus are offering thoughts that reflect a lack of scientific understanding. This is particularly obvious as RAC members confuse carbon with greenhouse gases as though the terms are synonymous. The result of this confusion seems to be a focus in some minds on reducing carbon emissions rather than reducing greenhouse gas emissions.

To clarify the distinction between carbon and greenhouse gases, I offer the following extract from a discussion of the importance of this distinction, available in full at The Carbon Mistake.

“In considering the issue of global warming, we should be very clear about what we are discussing, and adjust our language accordingly. The rule of thumb is to remember that our target is reducing the concentration of Greenhouse Gases (GHGs) in our atmosphere. Here are the basic concepts:

“a) Fossil Fuels – Since all fossil fuels are carbon-based, it is reasonable to refer to removing carbon or decarbonization when the subject is the fossil fuel resources that drive our energy economy.

“b) Regenerative Agriculture and Sustainable Forestry – Both activities rely on the process of photosynthesis which captures carbon dioxide from the atmosphere and sequesters it in plant biomass. Thus, it is quite reasonable to refer to carbon when discussing the benefits of regenerative agriculture or forest management that traps and stores carbon from the atmosphere and either builds up the organic component of soils or stores the carbon in the tissues of growing plants, such as trees.

Both activities rely on the process of photosynthesis to capture carbon dioxide from the atmosphere and sequester it in plant biomass. Thus, it is quite reasonable to use the terms “carbon capture” or “carbon farming” when discussing these practices.

“c) Emissions – First, not all greenhouse gases contain carbon, which is a frequent source of confusion. The greenhouse gas nitrous oxide (N_2O), for example, contains no carbon. Although the other greenhouse gases contain carbon, the carbon is not equivalent. In reality, using a Kilogram-for-Kilogram or pound-for-pound comparison, Methane (CH_4), is 86 times worse than CO_2 on a 20-year basis, and 34 times worse on a 100-year basis. Meanwhile, the Chlorofluorocarbons (CFCs) and Hydro-chlorofluorocarbons (HCFCs) are some 10,000 - 15,000 times worse. Finally, carbon-free Nitrous oxide is nearly 300 times worse. Stated another way, this means - for example - that releasing a ton of nitrous oxide into the atmosphere is equivalent to releasing nearly 300 tons of carbon dioxide. Thus, policies that attempt to reduce greenhouse gases by focusing exclusively on carbon completely ignore nitrous oxide, and do not sufficiently address other climate-warming gases, some of which are even worse. (Note: the values reported here constitute the carbon dioxide equivalent (CO_2e) or Global Warming Potential (GWP) values for the other greenhouse gases as reported in the Intergovernmental Panel on Climate Change Assessment Report 5, Table 8.7, p. 714).

It is relevant in the above context, that - like the Paris Agreement - Governor Brown’s Executive Order focuses not on carbon but on greenhouse gas emissions. This means the DEQ Climate Protection Plan as a cap and reduce effort, should be capping and reducing the emissions of greenhouse gases, not just carbon (or carbon dioxide).

Some 35 - 40% of global warming since the industrial revolution is a consequence of gases other than carbon dioxide. This means that we should neither ignore the other gases, nor engage in actions that reduce carbon dioxide emissions while simultaneously increase emissions of more destructive gases

Accurate Science: Electricity Use vs Electricity Generation

Having noted the EO focus on greenhouse gas emissions, it is worth pointing out also the confusion that seems evident in terms of electricity emissions. Unfortunately, in many of its discussions of emissions from the various sectors, DEQ refers to, or depicts graphically, emissions from the electricity sector as 'electricity use.' This is confusing since the actual end-use of electricity generally results in zero emissions. The problem with electricity is largely the energy source employed (combusted) in the generating facility. Thus, the labels would be more accurate if they were 'electricity generation.' Since the Executive Order, consistent with all other efforts to address global warming, targets greenhouse gas emissions across sectors, it is unquestionable that this refers to the emissions from the generation of electricity not emissions from its end-use. To suggest that the Climate Protection Program's cap and reduce effort should target only end users is thus illogical. Exempting electricity generation from the Climate Protection Program may have the effect of encouraging utilities to switch to fossil gas rather than employ genuine renewable sources. If electricity is exempt, the program will need some other mechanism for encouraging renewable energy use in electricity generation.

Accurate Science: The Fossil (Natural) Gas Conundrum

While fossil gas burns more cleanly than coal and oil, the problem with this fossil fuel as an energy source is that we have an abundance of evidence suggesting the fugitive emissions from fossil gas extraction, processing, and transmission make it at least as bad as coal. For further discussion, visit Fossil (Natural) Gas: A Bridge to Nowhere. It may well be that a new gas pipeline has lower emissions than aged infrastructure, but the gas must still be extracted from the ground (largely achieved by hydraulic fracturing producing fugitive emissions) and the reality is that new pipelines will likely be in use for 50 years (e.g. WILLIAMS TRANSCO CENTRAL PENN LINE SOUTH: A CITIZEN'S GUIDE). Thus, they will age, and likely will develop leaks at the rates reported for older pipelines. Furthermore, allowing the construction of such pipelines locks us into an energy economy for 50 years that is fossil gas dependent. Yet, we know that we have fewer than 30 years to solve the climate crisis and reach net zero emissions. Achieving the necessary state target would thus result in this infrastructure becoming a so-called 'stranded asset.' It is folly to develop a program that locks Oregon into an energy future that in any way involves fossil (natural) gas.

Accurate Science: Adequacy of the Executive Order 2050 Goal

While the Executive Order targets at least 80% below Oregon's 1990 emissions level by 2050, with an interim target of at least 45% below 1990 by 2035, we know that the 2050 stated goal of 80% is inadequate to meet what the best available science indicates we must achieve globally if we are to retain a livable planetary ecosystem.

First, the 2018 Intergovernmental Panel on Climate Change made a compelling argument (Global Warming of 1.5°C; https://www.ipcc.ch/sr15/) that limiting warming to 1.5°C above pre-industrial conditions is essential and would require our achieving net zero emissions by 2050.

Then, after nearly four years of climate science denial from the U.S. Administration and too many in our Congress, Spratt et al. from Australia's 'Breakthrough - National Center for Climate Restoration' evaluated recent trends and argued in a November 2020 report (Climate Reality Check 2020, https://469804a7-ae0f-4ba4-926a-0f4778d88216.filesusr.com/ugd/148cb0_c4cb345518ad4669bafa7c31d205edf4.pdf) that achieving net zero emissions by 2050 is inadequate. Rather, they suggested, we will have achieved the 1.5°C target above pre-industrial conditions by 2030 and therefore need to be at net zero emissions by then. Not only is the Executive Order overly optimistic in stating the effectiveness of its 2050 goals, it is considerably out of step with best available science. This places the onus on agencies to focus on the 'at least' element of the EO.

For these reasons, although we appreciate DEQ incorporating into its array of scenarios an option that takes us beyond the minimum prescribed in the EO, we suggest that this still fails to recognize what is needed if Oregon is to become a national and global leader in efforts to avert the climate chaos that global warming is leading us towards. Indeed, as Keep Oregon Cool, the Oregon Global Warming Commission's 2020 biennial assessment reports in its Table 1, many states across the U.S. have more ambitious goals than the Executive Order https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5fe137fac70e3835b6e8f58e/1608595458463/2020-OGWC-Biennial-Report-Legislature.pdf).

Additionally, it is worth noting that one of the reasons our state now must impose a steep descent on emissions, if we are to contribute our fair share to the global effort, is that climate polluters across the state failed to heed and achieve the voluntary emissions reductions established by HB3543 in 2007. More recently, members of the Oregon legislature, at the behest of these same polluters, have refused for many years to act on proposals establishing a meaningful statewide greenhouse gas emissions reduction program. Hence, we have Executive Order 20-04.

My Offer to RAC Members

Since I have spent many years teaching courses and offering presentations on climate science, I would like to offer my services to anyone on the RAC who would like to discuss or learn more about the basic science. A twelve-step summary of the basic science of global warming and its climate chaos consequences is available at Global Warming - Climate Chaos: The Twelve-step Consensus. An expanded version of this is available on request: Alan Journet.

The Computational Errors

Readers will possibly recall that, at the close of the RAC 2 meeting, I expressed concern about the accuracy of data in Slide 63. Subsequent conversations with Climate Policy Analyst Lauren Slawsky have resulted in the discrepancies being resolved. Thus, in case you have not seen this, I include the correct slide 63 here. Notice corrected values in the 1900 and 2018 cells for electricity. I understand the online slide set has been corrected.

Reference Case: High-Level Results

	Emissions (Million MT CO2e)					Percent Change			
Sector	1990	2018	2030	2040	2050	1990-2030	1990-2050	2018-2030	2018-2050
Transportation	20.5	24.1	21.7	16.5	14.3	6%	-30%	-10%	-41%
Natural Gas	5.5	7.5	7.1	6.7	6.2	31%	14%	-5%	-17%
Industrial	5.6	4.3	4.9	5.5	6.3	-12%	12%	13%	45%
Electricity	16.6	16.7	7.8	8.4	8.3	-53%	-50%	-53%	-51%
Residential and Commercial	3.5	4.4	5.1	5.5	5.9	48%	69%	17%	35%
Agriculture	6.5	6.7	6.6	6.7	6.8	2%	5%	-2%	1%
Total	58.1	63.8	53.3	49.4	47.8	-8%	-18%	-16%	-25%

Note: totals may not sum due to rounding.

Reflections on RAC1

Concern regarding the DEQ 'leaning' to exempt electricity from the program has been expressed many times. It is worth noting that the DEQ data for 2018 reveal that electricity (labelled 'electricity use,' but meaning 'electricity generation') accounted for some 26% of Oregon's total regulated emissions while the 2019 estimate raises this percentage to 29%. The justification offered for this leaning is that if DEQ capped these emissions, utilities would simply flip a switch and instead of generating electricity in-state, import it from power plants elsewhere in states lacking any emissions limits. This would allow emissions of greenhouse gases from electricity consumed in the state but generated elsewhere to continue unabated. Yet, despite repeated requests for some evidence to substantiate the claim of imminent leakage, none has been forthcoming even as comments have frequently been offered to suggest the contrary. It seems highly incongruous that the agency would exempt from the program entities responsible for over a quarter of the state's total emissions. Doing so potentially places an extra and unreasonable burden on the remaining sectors.

One potential consequence of exempting electricity generation is that this may encourage utilities to convert to fossil gas rather than genuine renewable energy sources. The result would be exactly the leakage of emissions out-of-state (i.e., the fugitive emissions from fracking, processing, and transmitting the gas) that DEQ claims to fear by including electricity generation in the cap and reduce program. Given this possibility, it is incumbent upon DEQ to develop a plan for addressing this potential conversion while promoting renewable generation.

While we urge DEQ to reconsider the exemption of electricity generation, we also urge that, if this exemption stands, there should be no other exemptions.

Biofuels:

We were disturbed to understand during the RAC 2 meeting that DEQ is encouraging biofuels as a renewable energy source. Although there are many kinds of biofuels, it is concerning that DEQ would consider these to be renewable and emissions-neutral. We understand perfectly the principle that

burning biomass results in the release of carbon dioxide captured from our current atmosphere as opposed to releasing carbon dioxide captured from an atmosphere hundreds of millions of years ago. Unfortunately, the evidence tells us that the length of time taken for a growing forest, for example, to recapture the carbon emitted from wood combustion is far longer than we have to address the greenhouse gas emissions problem. While there may be some circumstances under which biofuel comprises a reasonable option for generating electricity, this does not include harvested wood products. This is why 500 scientists wrote a letter to world leaders urging that wood not be included as a renewable energy source (https://www.wwf.eu/?uNewsID=2128466). Furthermore, encouraging investment in biomass combustion or biofuel production results in loss of investment funds for genuine clean energy sources and the risk of promoting combustion that results in the emissions of toxic co-pollutants that compromise the health of communities living near the generation facilities. We urge DEQ to avoid any suggestion that biomass combustion should be promoted within the Climate Protection Program, especially it should not be identified as a renewable option.

Health, equity, co-benefits:

It is essential that developement of the Climate Protection Program include achievement of equity as one of its top three priorities. While greenhouse gas emissions cap (and trade or invest) programs undertaken elsewhere have historically included provisions that allowed emitters to continue polluting the air with toxic co-pollutants, both HB2020 (in 2019) and SB 1530 (in 2020) included protections limiting this possible behavior. In the discussion of Alternative Compliance Options, I listed a number of requirements that should be imposed to protect neighboring communities from the threat of ongoing pollutants. These are merely the most obvious requirement, there likely are others. DEQ and EQC must be careful to ensure that any use of instrument trading or alternative compliance instruments protects communities from negative consequences.

How the Climate Protection Program will work: individual entities or groups:

The statement in Slide 28 that the program would not assign limits to individual entities but rather would assign them to groups of entities seemed to be denied by all prior discussion, subsequent discussion, and the example of trading depicted in Slides 31 and 32. This is confusing.

Banking, Trading, Compliance flexibility, Compliance Period:

Banking

While not having a strong feeling about the banking provision, I am concerned that allowing unrestricted banking will permit entities to exceed their emissions reduction early in the sequence, when doing so is relatively easy, and then bank unused instruments for later in the cycle thus compromising the essential goal of the program to reduce statewide emissions by reducing the number of instruments issued. To prevent this from happening, I suggest the imposition of one of two solutions:

(a) assigning a life of, say, five years to the instruments or (b) imposing a decay schedule on them of, say 5% of their original 1-ton emissions value per year.

Trading:

Allowing polluters to trade unused compliance instruments seems to be a valuable mechanism for granting emitters who have difficulty reducing emissions the option of complying with the program goals by purchasing unused compliance instruments from other entities that find achieving emissions reductions easier. It is important, however, that entities engaging in the purchase of such instruments demonstrate that they have adopted, or have plans to adopt, the best available technology so trading doesn't become a strategy for evading the purpose of the program. Trading also should not allow polluters to continue unabated emissions of co-pollutants that threaten the air quality and health of neighboring communities.

Alternative Compliance Options

In the discussion of Alternative Compliance Options, the examples given were all greenhouse gas emissions reduction projects. There were no examples of sequestration option from the natural and working lands arena. If we wish to encourage carbon sequestration, as the EO indicates, the only source of incentive funds within the program is the Alternative Compliance Option that allows polluters to invest in carbon sequestration projects.

We presume that the Alternative Compliance Options, whether they involve projects that mitigate emissions or promote carbon sequestration, will not compromise the cap but will allow entities to achieve their assigned cap by promoting either emissions reductions projects or carbon sequestration projects where the certified Alternative Compliance Instrument project offers a ton for ton equivalent unless for some reason, an alternative equivalence is deemed appropriate.

However, as we have noted previously, the Alternative Compliance Options must be subjected to restrictions that ensure they are effective and they do not exacerbate social injustice problems.

1) To be eligible for these investments, polluting entities should not be permitted to invest in Alternative Compliance projects to achieve emissions reduction caps:
    a. unless they have already installed the best available technology for reducing emissions or have solid plans for undertaking such installation,
    b. that allow them to continue releasing co-pollutants that undermine the air quality and health of neighboring communities whether or not such emissions compromise the air quality attainment status of such communities.
2) Acceptable sequestration projects must:
    a. be third-party certified as achieving carbon sequestration that is real, measurable, additional, long-lived, monitored and verifiable. The concept of 'permanent' is difficult in the case of carbon sequestration on our natural and working lands since the carbon in

forests and farms is in constant though slow flux through the system. Rather than demanding that the carbon should be permanently locked, as in a vault, we should expect that the overall carbon content of a system increases as individual carbon atoms flow through them much more slowly than previously.

b. not allow leakage of the sequestered carbon in other projects. For example, forest carbon sequestration projects cannot be compensated by activities elsewhere on the property of the project manager that result in an increase in emissions similar to or greater than the carbon sequestered.
c. not generate conditions that compromise equity and social justice.

3) In order to prevent emitters from achieving their cap requirements by investing in Alternative Compliance Instruments and thus substantially evading their responsibility actually to reduce emission, a ceiling should be placed on the proportion of their compliance obligations that a polluter might achieve by investing in ACIs. As I recall, previous legislation placed a ceiling of 8% on ACIs with no more than 4% allowed out-of-state.

Compliance Period:

A multi-year compliance period seems an appropriate approach to allowing emitters time to plan and undertake emissions reductions.

Point of regulation:

Since the extraction, processing, transmission and combustion of fossil (natural) gas emits substantial greenhouse gases, I am confused as to why this is separated from other fossil fuels both here and in the scenarios.

Zero-emitting RNG (Slide 60):

I realize that this refers to Senate Bill 98, but I am concerned that Renewable Natural Gas (RNG) is being promoted as a zero emissions option.

Basically, the IPCC argues that we need to decarbonize our energy economy in order to avoid climate chaos, achieving net zero emissions by around 2050. This means anthropogenic CO_2 emissions are balanced globally by anthropogenic CO_2 removals. https://www.ipcc.ch/sr15/chapter/spm/

Unfortunately, a study of global warming emissions from RNG under different scenarios (Grubert 2020) revealed: “RNG is not inherently climate friendly. Based on consideration of both the source of methane used to produce RNG and the likely alternative fate of that methane, and using reasonable assumptions about likely system methane leakage, it is unlikely that an RNG system could deliver GHG-negative, or even zero GHG, energy at scale.”

There is, furthermore, considerable doubt about the capacity of RNG to meet our current and foreseeable need. Indeed, in a study - admittedly ten years old, promoting the benefits of RNG, the American Gas Association indicated: “RNG could meet the natural gas needs of half of all American

homes...” and “16 percent of natural gas demand in the four states National Grid services (Massachusetts, New York, Rhode Island and New Hampshire) could be met by renewable gas….” (https://www.aga.org/research/reports/renewable-natural-gas-rng/) Rather than replacing fracked fossil (natural) gas with renewable natural gas, the plan seems to be to incorporate a percentage of the RNG into current and future pipelines. This would lock us into an energy economy for decades that relies on some proportion of fracked natural gas.

It is disturbing, also, that most RNG proposals involve use of manure from Confined Animal Feedlot Operations (CAFOs) which suggests the need for RNG might become an argument for promoting these obscene operations.

In terms of greenhouse gas emissions, RNG may be an improvement over conventional fossil (natural) gas, especially when the latter is extracted through hydraulic fracturing, and the RNG is not pumped through leaky pipelines. However, the likelihood that a conversion to RNG will lock us into years of gas infrastructure rather than promote genuinely clean fossil-free fuel and promote CAFOs is tremendously troubling. It seems that the benefits of RNG are limited meaning its use should be limited to those situations where it is a demonstrable improvement over current practice.

Modeling:

Given the vast array of variables that deserve assessment, it is unfortunate that the modelling exercise is limited to three scenarios since optimal practice (following standard experimental protocol) would require that no model is different from the basis for comparison in more than one variable. Manipulating multiple variables concurrently makes it difficult to identify causal relationships with any confidence or clarity.

Scenarios:

The inclusion of a scenario that exceeds the EO intermediate and final goal is appreciated though it is unfortunate that no scenario offers what best available science tells us we need: namely net zero emissions.

The main problem with the scenarios is that there are simply too few to assess the array of variables being adjusted among them with the result that it’s impossible to isolate the impact of any single adjustment.

I discussed under ‘Reflections in RAC1 the large proportion of statewide regulated greenhouse gas emissions resulting from electricity generation and how incongruous it is that this is eliminated from coverage under all scenarios. While appreciating that legislation in Salem has been proposed that would lead to 100% clean electricity in Oregon, I do not think that, in developing a Climate Protection Program DEQ should assume that this is successful. Given what has happened to climate proposals in the legislature in the last two years, this admonition is doubly underlined.

Credit for efforts already undertaken:

During the public comment period, a couple of Eastern Oregon farmers expressed their concern that they are already undertaking steps to sequester carbon in their soils, and should be awarded credit for what they are doing. While it may be difficult to assess to what extent soil carbon has already increased under such management, it should, at least, be possible to allow any future carbon sequestration that occurs as a result of their continued practice of regenerative agriculture. The problem that this generates is that a specific exception might be appropriate to the criterion of 'additional' for such practitioners in the certifying of Alternative Compliance Instrument.

This, of course, also points to the general question that surrounds credit being afforded to entities that have already undertaken some substantial action to reduce their emissions so they are not effectively penalized for having taken these steps as the emissions reduction requirement kicks in.

From: john@enterprise-electric.com
Sent: Monday, March 1, 2021 6:22 AM
To: GHGCR2021 * DEQ
Cc: Nicole.SINGH@state.or.us; john@enterprise-electric.com
Subject: RAC #2 comments

I have several concerns I wanted to address.

First the treatment of Eite's (Energy Intensive, Trade Exposed Entities} and leakage. If they are not properly handled by rules set forth, by DEQ, the consequences to the global climate would have a negative effect.

The following is testimony by Ash Grove Cement concerning the difference between imported and domestically produced cement. Quoted from Curtiss Lesslie, former VP Environmental Affairs of Ash Grove Cement.

In addition to job loss in Oregon, the unintended consequences of this policy will be a net increase rather than a decrease in global carbon dioxide emissions. Manufacturing cement requires a lot of electricity. The vast majority of Chinese electricity is generated from coal. Not so in Oregon. Shipping cement from China may be cheap, but not for the environment. Shipping one single ton of cement from China to Oregon results in almost 700 lbs. of CO2. Every time a ton of Chinese cement is used in Oregon instead of Oregon-made cement, the environment sees roughly 760 lbs. of CO2 that would not occur if that ton of cement were made in Oregon. If the manufacturing capacity at Durkee is lost to Chinese competition because of a carbon tax or cap and trade program, then, in addition to the loss of approximately 80 union jobs, global emissions of CO2 will increase by more than 417,000 tons per year.

If the compliance burden was too much on Ash Grove, Eastern Oregon could lose hundreds of jobs both indirect and directly associated with the production and transportation of their cement. Process emissions that can't be migrated at this time, due to the lack of technology, should be addressed on a site specific basis taking into consideration how leakage might effect the emission on a global basis.

My other concern at this time is alternative compliance instruments. The use of ACI's is one of the most valuable tools this program has to ensure benefits to impacted communities as well as rural communities. Emitters could invest in local projects like community solar, small hydro, and forestry to benefit effected communities.

Oregon Forest Sequester 50% of the man-made emission Oregon produces and if managed for carbon could sequester even more than we do now. Several counties and tribes have forestry programs and some are already engaged in sequestering carbon. My suggestion would be to promote the idea of allowing alternative compliance instrument be used as an investment by our local counties and tribes and the state recognize the value of community based forestry in our fight to slow climate warming. To make this feasible I would suggest increasing the allowable use of ACI's to at least 25% and all be used in the state. This would promote job growth, promote perpetual public access, and have positive biological, ecological, and economic benefits for rural communities. Beyond this I would suggest a bonus program exist where investments/ACI's used for community or tribal owned lands get bonus ACI's because of the long term benefits they provide. County owned community forest could be managed with input from ODF and ODFW. This could also be a way to protect water sheds from the perils of clear cutting.

Thank you for considering my comments for inclusion to the RAC testimony.

Commissioner John Hillock

Wallowa County

February 26, 2021

Oregon Department of Environmental Quality
Office of Greenhouse Gas Programs
700 NE Multnomah St., Suite 600
Portland, OR 97232

Submitted electronically to: capandreduce@deq.state.or.us

Re: WSPA Comments on DEQ Cap and Reduce RAC Meeting #2

Western States Petroleum Association (WSPA) is a trade association that proudly represents companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas, and other energy supplies in Oregon and four other western states.

The way the world produces and consumes energy is evolving. And the members of WSPA are on the cutting edge of those changes, investing in and developing the affordable, reliable, and ever cleaner energy sources and technologies of the future. We believe that, working together, we can rise to the challenge of a changing climate. As such, we appreciate the opportunity to comment DEQ's second RAC meeting on the proposed cap-and-reduce program.

No Real Compliance Pathways

On several occasions during RAC meetings, we have heard some voice concern about DEQ providing "flexibility to polluters." While this notion runs counter to the purpose of a market mechanism, it also misses the mark. For Oregon's cap-and-reduce program to be considered "flexible", it would need to include at least one predictable compliance pathway, if not multiple compliance pathways. However, no feasible, long-term compliance pathway is being discussed.

The theoretical illustrations in the latest round of DEQ materials – while helpful – only show a one-time compliance activity. In reality, compliance over multiple years will be much more complicated (as DEQ knows) and actual long-term compliance feasibility is much more questionable. As an example, while DEQ is considering including a provision for allowance trading within the program, it also acknowledges that the likelihood of trading may be relatively low. Any further constraints on alternative compliance instruments will further reduce compliance feasibility. From a fuel perspective, this should be particularly concerning to consumers in a small state such as Oregon.

Small Market Will Lead to Volatility

The cap-and-reduce program, as envisioned, proposes to include very few entities as obligated parties. The number of obligated parties looks even smaller when compared to an economy-wide cap-and-trade program such as California's. Having such a small market with limited participants increases the likelihood for big market swings in the program. This obviously can have negative impacts within the program. But a highly volatile market is also not desirable from an environmental perspective because such volatility undermines the market's ability to identify the true price on carbon which is needed to send clear investment signals. This renders covered entities' decision making and planning difficult. Therefore, we continue to recommend that DEQ pursue as broad a market as possible in order to somewhat mitigate this potential for volatility.

Cost Containment

The small market and potential volatility in carbon price underscores the need for strong cost containment elements. The discussed features of banking, trading, multi-year compliance periods and alternative compliance instruments may help but could ultimately prove insufficient. We recommend discussion of design features such as price triggers where, if the market price reaches assigned price points, it would trigger program adjustments. Such features could soften the impact on Oregon consumers. Similar features exist in Oregon's Clean Fuels Program.

Thank you again for the opportunity to comment. If you have any questions, please feel free to contact me at troberts@wspa.org. We look forward to meeting with you to further discuss these ideas and welcome an open dialogue with you and your staff.

Sincerely,

Tiffany Roberts
VICE PRESIDENT, REGULATORY AFFAIRS
WSPA
1415 L Street, Suite 900 Sacramento, CA 95814