

Technical Workshop: Program Scope

The sectors, sources, and types of emissions that may be covered under a cap and reduce program or programs administered by the Oregon Department of Environmental Quality

Meeting Date: August 19, 2020

Workshop Attendance

Participants interested in engaging in a technical discussion of program design elements, mechanisms, options, and implications to cap and reduce greenhouse gas emissions within the Oregon Environmental Quality Commission's existing legal authority are encouraged to attend. Workshop participants are invited to provide input and ideas, be constructive, creative, and to work toward solutions.

Please note that program design decisions will not be made during workshops. The EQC will make decisions when it meets to consider the proposed rules.

Those seeking to participate in broader conversations about the EQC's and DEQ's efforts to cap and reduce greenhouse gas emissions and to provide more general comments may want to attend the public meetings to be held this October in a town hall format.

Background

On March 10, 2020, Gov. Kate Brown signed Executive Order 20-04, directing state agencies to take actions to reduce greenhouse gas emissions and respond to climate change in agency planning. The order contains several directives for the EQC and DEQ to take action consistent with existing legal authority to reduce emissions toward meeting the science-based greenhouse gas reduction goals separately established in the order. One of the specific directives is for the EQC and DEQ to cap and reduce greenhouse gas emissions from large stationary sources, transportation fuels, and liquid and gaseous fuels.

Those sources of emissions do not constitute all statewide sources of greenhouse gas emissions. The cap and reduce program(s) will support reducing emissions from some of the most significant sources in Oregon, but it is only one element of multiple reinforcing policies and actions across state agencies that will be necessary to achieve statewide emissions reduction goals. Actions in other programs may reduce compliance obligations for regulated entities under a cap and reduce program or programs.

This workshop is part of DEQ's effort to meet this directive. Prior to opening a formal rulemaking, DEQ will host a series of topic-specific workshops and public meetings to receive input and help inform the program design.

Workshop Topic Introduction

The "scope" of the cap and reduce program means what and who are regulated under the program. Determining the scope involves choosing which greenhouse gases are included, which types of fuels, activities, and emissions sources are regulated, and which entities are obligated to comply for those emissions. The scope's parameters will



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be primarily driven by EQC's statutory authority to regulate certain pollutants and entities, and policy goals, such as overall greenhouse gas emissions reduction targets. There are many considerations when determining the program scope, including the number and size of the entities regulated, the effectiveness of overall emissions reductions, where to place the point of regulation in a given sector, ease of administration, and more.

Greenhouse Gases

Carbon dioxide and other climate-forcing pollutants are main targets for scope, though activity type may also constrain which gases are most readily included under caps. For example, including emissions from fuel combustion may then mean including carbon dioxide, methane, and nitrous oxide. Certain industrial processes may also result in emissions of these greenhouse gases, as well as hydrofluorocarbons. These gases may all be considered within the scope of the program.

Given the EQC's existing legal authority, it is unlikely that biogenic emissions of carbon dioxide would be covered under the scope. DEQ will likely focus on capping and reducing anthropogenic, or human-caused, sources of greenhouse gas emissions.

Sectors and Sources of Emissions

DEQ is exploring program options to cap and reduce greenhouse gas emissions from large stationary sources, transportation fuels, and other liquid and gaseous fuels, as directed in Executive Order 20-04. Some examples of large stationary sources in Oregon might include industrial manufacturers of products such as cement, electronics, or paper. Fuels could include those used for transportation such as gasoline or diesel, as well as propane and home heating fuel, as well as natural gas.

The EQC has authority in Oregon to limit emissions directly at air contamination sources, as well as indirectly, by regulating upstream at suppliers of products that when used produce emissions (e.g. fossil fuel suppliers). Emissions associated with industrial or manufacturing processes occur directly at a facility due to the manufacturing itself. Therefore, certain large stationary sources conducting processes on-site that result in emissions may be directly regulated for those emissions.

DEQ may also directly regulate large stationary sources for emissions resulting from on-site fuel combustion. Alternatively, the suppliers of those fuels used on-site may instead be regulated for those emissions as the indirect sources. The latter approach would avoid directly regulating industrial sources for their emissions from on-site fuel combustion. This approach would place the point of regulation for fuel combustion upstream at the fuel supplier, leaving only the manufacturing process emissions of a small number of entities to be regulated directly at facilities. This would reduce the number of entities regulated by the program overall, as there are numerous users of small amounts of fuel on-site. This upstream fuel supplier approach to regulation would simplify the program in some respects, but raises other considerations, especially in determining thresholds for inclusion in the program.

Thresholds for Inclusion in Program

Beyond sectors and sources of emissions covered, an important element to the program scope is to determine the emissions threshold levels for potentially regulated entities. Setting thresholds can ease administration of the program by covering only the most



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significant sources of emissions. Emissions thresholds also affect the scope of emissions covered and define whether or not a source is regulated.

As an example, using a threshold of 25,000 metric tons of carbon dioxide equivalent (CO₂e) of emissions per year for stationary sources means an entity emitting less than that amount annually would not be directly regulated, while a similar entity with more than that amount of emissions would be regulated. As threshold levels are lowered, a greater amount of total emissions are covered and more entities are regulated. The level of coverage will affect DEQ's program administration, as well as cost-effectiveness of complying with the program for regulated businesses.

Due to the types of businesses operating in Oregon, threshold levels in some sectors may have more effect on the number of entities regulated under the program, than on the total amount of emissions covered. For example, all non-natural gas liquid and gaseous fuels are imported into the state annually by about 90 different suppliers. These fuel suppliers range from large international oil companies to locally owned small businesses that collectively bring in fuels that account for over 40 percent of the state's total greenhouse gas emissions inventory. Establishing a threshold for inclusion of 5,000 metric tons of CO₂e might result in regulation of approximately 60 different suppliers and would cover 99.8 percent of emissions from this sector. However, due to the types of entities in this sector, establishing a threshold of 500,000 metric tons of CO₂e – 100 times higher – could result in regulation of around seven different suppliers and would still cover 90 percent of emissions from this sector.

There are additional considerations in establishing thresholds. Quantities that a given fuel supplier brings in to Oregon, as well as the individual companies transporting fuels in, vary annually. Thresholds for fuel supplier inclusion must also consider these variables in order to maintain a competitive landscape and not prioritize one supplier over another.

Leakage Risk

Another important consideration for a cap and reduce program or programs is to minimize leakage, or the shifting of emissions to other jurisdictions where there is less stringent or even no regulation of greenhouse gas emissions, or to entities in Oregon that are not subject to the program. Depending on the sector and depending on program design, there is risk of transferring business activities and emissions to outside the state or to unregulated entities within the state. This transfer would undermine state-wide emissions reduction goals. This is particularly the case with emissions from electricity generation or certain trade-exposed industrial manufacturing, where in-state production may readily shift to out-of-state facilities. If an emitting entity under the Oregon cap and reduce program shifts activity to outside of Oregon, it undermines the broader goal of Oregon "doing its part" to reduce global emissions and may harm Oregon jobs, as well as the state's economy. The EQC likely does not have authority to regulate emissions occurring outside the state. This includes emissions from electricity generated outside of Oregon, even if the electricity is used within state borders.

Defining emissions thresholds may also contribute to leakage risk. Depending on the thresholds and the types of businesses in Oregon, this could lead to leakage of activity or emissions to outside the scope of the program, or even outside the state. For example, when considering fuel suppliers as a point of regulation, a high threshold for inclusion may encourage more suppliers to bring in just enough fuel to remain below the



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Issue Brief

threshold, and therefore not be regulated by the program, which could lead to an increase of emissions.

To address leakage concerns, the program design will consider the level of leakage risk associated with different regulated entities and covered sectors, such as for trade-exposed industries and fuel suppliers. Program design and scope may reflect differing considerations by sectors. DEQ aims to minimize the risk of leakage of activities or emissions in all regulated sectors when determining the scope of the program.

Workshop Format

DEQ acknowledges there are varying considerations by sector for the above sub-topics. Therefore, the workshop structure contains sector-specific discussions. For example, thresholds and leakage risk for fuel suppliers will be discussed separately from stationary sources. The agenda for this workshop will have set time to discuss each sector or issue, as identified by DEQ. These workshops are not creating a program, but will introduce key issues for discussion and help inform DEQ's future rulemaking and program design. DEQ encourages conversations around the table and across sectors during the workshops.

Key Workshop Discussion Topics

- Which greenhouse gases might be regulated? Why?
- Which fuels and activities result in emissions that should be regulated? Why?
- What tradeoffs are important when establishing emissions thresholds for inclusion?
- Which entities should be responsible for which sources emissions? Why?
- What issues have been raised during this workshop that should have continued discussions?

Related Topics

A well-functioning and coherent cap and reduce program or programs will include many carefully considered and integrated elements. These choices depend on related policy or real world considerations. Rather than discuss all choices simultaneously, DEQ will host topic-specific technical workshops to address program design options. DEQ acknowledges there is crossover among design elements and workshop topics, but will focus this workshop's conversation on the topic at hand as described above. Below is a list of related topics for subsequent technical workshops and some key ways in which these topics relate to program scope:

- Program stringency: Achievable emissions reductions for emissions sources and types of businesses regulated within the program scope are a consideration when setting the speed of required emissions reductions over time and allowable emissions levels under a "cap" or "caps".
- Alternative compliance options: Allowable options will be informed by what is considered outside the scope of program regulation.
- Distribution of compliance instruments: Differences by sector and leakage concerns are considerations when defining methodologies to distribute compliance instruments.
- Cost effectiveness: Cost-containment mechanisms, such as allowing for trading of compliance instruments, relates to program scope in that instruments would need to be interchangeable across different regulated sectors.



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- Impacted communities: Sources of greenhouse gas emissions and associated hazardous air quality pollutants may be located in or near underrepresented communities.

Additional Opportunities to Engage

Prior to opening a formal rulemaking, DEQ will host topic-specific workshops for in-depth technical discussions and town hall-style public meetings for broader conversations and public comment.

For more information on how to engage in the conversation, please visit DEQ's webpage: <https://www.oregon.gov/deq/ghgp/Pages/ghg-cap-and-reduce.aspx>.

Alternative formats

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.