

## Technical Workshop: Program Stringency

The level and trajectory of the cap in a greenhouse gas emissions cap and reduce program or programs

Meeting Date: Aug. 26, 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 encouraged to provide input and ideas, be constructive and 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 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 reduction goals separately established in the order. One of the specific directives is for the EQC and DEQ to cap and reduce 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 programs 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 reduction goals. Actions in other programs may reduce compliance obligations for regulated entities under cap and reduce 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

"Stringency" defines what the allowable level of emissions is in each year, or the annual emissions "cap." Determining the stringency entails choosing the type of standard for the emissions limit and how it changes or "reduces" over time to allow for progressively fewer emissions. There are many considerations when determining the program stringency, such as the reduction goals, economic implications, and the costs and



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opportunities of achieving those goals over time. Balancing and prioritizing these considerations will ultimately be determined by the EQC.

## Timeline for emissions reductions

For Oregon to contribute to staving off the worst impacts of climate change, DEQ must set caps that reduce greenhouse gas emissions as soon as practicable. The Oregon Legislature and the Governor's executive order identify ambitious science-based goals for reducing emissions. DEQ must also be mindful of the opportunities and costs for businesses in Oregon to comply with declining caps given current available technologies and the pace of emerging technological developments and clean energy advancements. The initial cap(s) and level of decline over time should align with an achievable transition to advanced technologies as they are developed and deployed.

Opportunities to reduce emissions, and the costs of those opportunities vary by sector and entity. This is one consideration for whether to establish a single cap for all sectors collectively, or if each sector should have independent caps. Separate sectoral caps could reflect different emissions abatement options through different cap decline levels over time by sector. However, a cross-sectoral cap might offer more compliance flexibility.

## Initial cap level

The "cap" is the allowable amount of greenhouse gas emissions, and can be thought of as the total number of compliance instruments that will be available to regulated entities. The initial cap in the first year of the program establishes the point from which allowable emissions are subsequently reduced. It may be based on historic emissions or projected future emissions.

The COVID-19 pandemic is affecting both the economy and greenhouse emissions, and the situation continues to develop. DEQ will need to consider this uncertainty when defining the program's baseline cap.

## Type of standard

A cap or limit could be established either as an absolute mass-based amount in tons of emissions, or as an intensity-based measure of tons of emissions per unit of output or activity, such as a quantity of goods produced or an amount of energy supplied.

Mass-based standards have been used by the U.S. Environmental Protection Agency to address environmental problems including smog and acid rain. This is also the approach of cap and trade programs in California and Quebec, the European Union, and 10 states in the Northeast. This approach provides assurance of achieving overall emissions reductions and desired environmental outcomes. However, mass-based standards do not naturally adjust to underlying fluctuations that influence emissions, such as changes in population, weather, and economic activity. Despite this, mass-based programs have been proven to not hinder economic growth, as shown through existing successful cap and trade programs around the world.<sup>1</sup>



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<sup>1</sup> Acadia Center, 2017. The Regional Greenhouse Gas Initiative: Ten Years in Review. <https://acadiacenter.org/document/the-regional-greenhouse-gas-initiative-ten-years-in-review/>.

An intensity-based standard is used in Oregon's Clean Fuels Program and California's Low Carbon Fuel Standard, which are transportation sector greenhouse gas emissions reduction programs. This approach can more easily account for underlying fluctuations in the sectors of Oregon's economy covered by the program. However, it does not offer the same assurance of overall emissions reduction.

## Connection to alternative compliance options

Crediting emissions reductions and removals outside the scope of direct regulation of the program may offer more ways to meet compliance obligations, if they are appropriately tracked, certified and monitored. Such alternative compliance options allow regulated entities to comply with the emissions cap by acquiring emissions reductions outside of the scope of the capped sectors in order to reduce emissions at a lower cost than the regulated entity could achieve within their own operations. This can produce the same overall reduction of emissions at a lower overall cost. Allowing for alternative compliance options would encourage investments in decarbonization strategies and cleaner technologies across a broader scope of industries than just those directly regulated. Alternative compliance options can also contain costs by creating more compliance options for regulated entities.

The initial cap and decline over time should be established with an understanding of the available compliance options that an entity may use to demonstrate compliance. A high availability of alternative compliance options could allow for a more quickly declining cap. Therefore, the stringency of the decline of the cap and alternative compliance options must be considered together carefully. For example, quickly declining caps with few alternative compliance options could result in an expensive and economically-disruptive program. On the other hand, a modest decline in the caps coupled with a wide variety of readily available alternative compliance options could mean little incentive to reduce emissions within the covered sectors.

## Leakage risk

Another important consideration is to minimize leakage. Leakage is the shifting of emissions to other jurisdictions where there is no or less stringent 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 other states or to unregulated entities within Oregon. This transfer would directly undermine emissions reductions achieved by this program.

This is particularly the case with emissions from electricity generation or certain industrial manufacturing, where in-state production may readily be shifted to out-of-state facilities. If an emitting entity under the Oregon cap and reduce program shifts activity, and therefore emissions, outside of Oregon it undermines the broader goal of Oregon doing its part to reduce global emissions.

There is leakage risk when setting the stringency of the program caps. Depending on how the caps decline over time and the types of businesses in Oregon, this could lead to leakage of activity or emissions to outside the state. For example, if a certain industry



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# Issue Brief

cannot achieve emissions reductions as quickly as the program requires at a reasonable cost, that business may be forced out of its operations in Oregon. This would negatively impact the individuals who worked for that business and the state's economy, and it would undermine the emissions reductions of the program.

Design elements regarding cap levels may vary across the program's regulated sectors in response to leakage concerns. Program design and stringency may reflect differing considerations for potentially regulated entities and covered sectors, such as different treatment of trade-exposed industries compared to fuel suppliers, as an example.

## Workshop format

DEQ acknowledges there are varying considerations by sector for program stringency, however, the workshop will largely be structured based on the sub-topics denoted above. For example, how to set the initial cap level and the achievability of changing emissions caps over time should be discussed across all stakeholders, together. The agenda for this workshop will have a set amount of time to discuss each 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

- What considerations are there for setting declining caps over time? Are there other considerations, especially in the context of achievability and contribution toward meeting Oregon's interim and long-term GHG emissions reduction targets?
- What sector-specific considerations should there be in cap-setting and should caps differ by sector?
- What considerations are there for setting the initial cap level?
- What are the benefits or concerns with mass-based or intensity-based standards?

## 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 stringency:

- Program scope: It is important to consider achievable emissions reduction measures for entities, business types and sectors that are regulated under the program when setting declining caps over time.
- Alternative compliance options: Allowing alternative compliance options may add flexibility and allow for the program to have more stringent emissions reduction caps over time.



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- Distribution of compliance instruments: Methodology for distributing compliance instruments may need to take into account the changing level of the caps over time.
- Cost effectiveness: Mechanisms such as allowing for trading of compliance instruments relates to program stringency in creating more flexibility in how to meet declining emissions caps over time.
- Impacted communities: The stringency of the caps can have a direct impact on costs of complying with the program, which may be passed on to and be over burdensome for 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](mailto:deqinfo@deq.state.or.us).