

Technical Workshop: Distribution of Compliance Instruments

The distribution options and use of “instruments” that represent allowable emissions under a cap and reduce program

Meeting Date: Sept. 9, 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 greenhouse gas 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 emissions. The cap and reduce program 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.

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 EQC has the authority to regulate greenhouse gases, and may set allowable limits on emissions of these gases. Entities subject to complying with emission limits or “caps” must be able to demonstrate how they are ensuring their emissions do not exceed allowable limits. This can be done using compliance instruments created by DEQ, which demonstrate permitted or allowable emissions.



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DEQ could produce compliance instruments equal to the allowable emissions (or cap) in any given year. The total number of compliance instruments will equal the total allowed emissions up to the cap(s). That cap or caps could apply to individual entities, individual sectors, or across multiple sectors. Compliance instruments will be made available to regulated entities and will be used to demonstrate compliance as they each represent an amount of emissions permissible under the established caps. Each regulated entity will need to present back to DEQ a number of compliance instruments in an amount that is equal to their regulated emissions to show to DEQ that their emissions were allowable and are under the cap.

Setting the value of a compliance instrument equal to a metric ton of carbon dioxide equivalent of greenhouse gas emissions makes it clear to regulated entities how many instruments they must hold in order to show compliance based on their actual emissions.

DEQ does not believe that the EQC has the authority to auction or otherwise sell rights to emit greenhouse gases. As a result, compared to programs previously considered by the Oregon Legislature, DEQ believes the EQC must develop a program that uses other mechanisms to distribute compliance instruments without reliance on an auction.

Direct distribution

Because of the constraints regarding EQC authority for distribution of compliance instruments, DEQ will need to directly distribute compliance instruments to regulated entities. The basis by which DEQ distributes compliance instruments to each regulated entity may differ by industry or sector and may depend on whether the emissions cap is an absolute mass-based emissions metric or an intensity-based metric. In either case, baselines would need to be established to set the level(s) of initial distribution of compliance instruments. Baselines might be set using total emissions or an emissions intensity per quantity of fuel, activity, product, or some other measure.

Over time, as compliance instruments are distributed to regulated entities, the aggregate number distributed will decline to account for cap decline. The total amount of compliance instruments available and distributed may need to take into account new entrants into regulated sectors, the exit of regulated entities, acquisitions of one regulated entity by another, economic activity, as well as dynamic market shares over time. DEQ could consider accounting for many of these variations by keeping some amount of compliance instruments in reserve in order to have available and distribute on an as-needed basis.

Methodology for direct distribution

Baselines for establishing the initial distribution of compliance instruments could be set by considering an appropriate historical period, or using near-term projections. As an example, a baseline level of emissions could be set per entity using recent year(s) or historic data and DEQ could issue instruments to each entity based on those baselines. The amount of compliance instruments DEQ distributes to each entity could decline over time either at the same rate as the overall emissions cap decline, or at some other rate.

Similarly, DEQ could establish baseline emissions for each entity based on emissions in recent year(s) for just the first year of distribution. In subsequent years, DEQ could directly distribute based on a continually updating assessment of an entity's emissions or relative share of the program's (or sector's) covered emissions. This distribution method addresses annually changing market shares, as well as overall changes in the market



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over time. Updating assessments of an entity's share of a sector in this more contemporaneous approach could allow compliance instruments to be issued in amounts more reflective of dynamic sectors and thereby minimize influence on existing commodity markets.

DEQ could also consider distributing compliance instruments using an intensity or rate-based approach, with similar considerations given to the appropriate baseline period. For natural gas suppliers, this could be a ratio of emissions per therm of natural gas delivered. For non-natural gas fuels, DEQ could establish a rate per gallon supplied. DEQ could distribute compliance instruments based on total volumes of fuel supplied over time.

For the stationary source sector, a rate-based distribution approach might mean a rate of emissions per product produced. DEQ would have to establish product categories and product output reporting requirements for each industry or type of facility. DEQ could then issue compliance instruments to facilities based on DEQ-determined amounts of emissions permitted per product produced. This approach would take significant technical work and require additional reporting requirements from regulated entities, but would allow for greater flexibility for businesses to expand and contract with changes in production.

If under a rate-based distribution approach, the rates DEQ uses to distribute compliance instruments to each entity could decline over time, resulting in fewer compliance instruments distributed per unit of energy or activity. This would provide added incentive to produce products more efficiently.

Changing market shares

If businesses' market shares change significantly from year to year, distribution of compliance instruments based on previous market activity may not reflect current or future year activities, and therefore may not reflect compliance obligations.

The natural gas sector provides a good example of entities with fairly static market shares and those with relatively dynamic market shares. The three investor-owned utilities delivering natural gas in Oregon have relatively static market shares. DEQ could likely use historic data of natural gas deliveries on each of these local distribution company systems to get a sense of an appropriate level of compliance instruments to distribute to each utility. However, this approach becomes challenging if natural gas marketers are going to be separately regulated for the natural gas that they supply via the gas utilities' systems. Natural gas quantities that marketers supply in Oregon vary based on the entities choosing to purchase fuel from them in a given year. Relatedly, the individual marketer companies supplying the gas vary annually. Appropriate distribution of compliance instruments to natural gas marketers would need to consider these variables in order to maintain a competitive landscape and avoid this program disrupting the decisions by gas consumers on where to source their gas.

Changing relative market shares is also the primary consideration for other fossil fuel suppliers, such as importers of fuels used for transportation, commercial and industrial equipment, and heating buildings. All non-natural gas fossil fuels supplied in Oregon are imported. The companies importing the fuel, as well as the quantities supplied, vary annually, particularly among smaller companies. Additionally, this sector has more regular change in company names, ownership, or operations than is seen in other sectors. This may create challenges for using a static historic baseline when determining



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appropriate levels of compliance instruments to distribute to each entity in this dynamic sector as it could quickly disrupt the fuel market.

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 on program design, there is risk of transferring business activities and emissions to outside of Oregon or to unregulated entities within Oregon. This transfer would directly undermine emissions reductions achieved by a cap and reduce 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, to outside of Oregon, it undermines the broader goal of Oregon doing its part to reduce global emissions.

There is leakage risk when determining how to distribute compliance instruments. Depending on the quantity of compliance instruments distributed over time, or even initially, and depending on the types of businesses in Oregon, this could lead to leakage of activity and emissions to outside the state. For example, if a certain industry cannot meet compliance with the instruments available to them or cannot acquire additional compliance instruments 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 as well as the state economy, and could undermine the emission reductions of the program.

Program design elements regarding distribution of compliance instruments may vary across the program's regulated sectors in response to leakage concerns. Program design and distribution of compliance instruments 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.

Trading and banking

DEQ could allow for trading of compliance instruments. To allow for trading, the program would need to be designed so that a compliance instrument issued to one regulated entity would be equivalent to and tradeable with another entity. If cross-sector trading is allowed, then compliance instruments would likely need to be equivalent across sectors or easily converted. This may mean that the design of compliance instruments and their distribution might need to take into account the ability to trade from a sector with a mass-based cap to a sector with an intensity-based cap, and vice versa.

Allowing for trading of compliance instruments would enable a regulated entity that received more compliance instruments than necessary to cover their emissions to sell the excess to an entity that received too few. Trading could help alleviate concerns regarding best methodology for distributing compliance instruments, especially for sectors with regularly changing market shares. This could also add flexibility to the program and be an efficient means of achieving lower-cost reductions of emissions, which may also help to minimize leakage.



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Relatedly, DEQ may also consider allowing compliance instruments to be held or banked for usage in future years if not needed by an entity for compliance in the current year. This could help encourage early emissions reductions, and expand options for flexibility and cost-effectiveness. For an entity whose market share is highly variable from year to year, banking of compliance instruments may also allow for a more consistent distribution of compliance instruments each year, as the entity could save unused compliance instruments for a future year in which more compliance instruments may be needed.



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Tracking and compliance

DEQ will need a system to track compliance obligations and issuance, trading and retirement of compliance instruments. Regulated entities will register in the system, know their compliance obligations over time, receive and hold compliance instruments distributed by DEQ, and have the ability to trade compliance instruments with other regulated entities in the system.

DEQ may consider a multi-year compliance period in order to provide some flexibility, especially for sectors with dynamic markets where entities regularly see annual fluctuations in their business operations and therefore their emissions levels. Multi-year compliance periods would allow regulated entities more time to trade and bank compliance instruments and could help smooth out the emissions levels associated with their annual fluctuations in operations.

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, considerations for how to directly distribute compliance instruments to fuel suppliers will be discussed separately from stationary sources. Additionally, some sub-topics should be discussed collectively across all sectors such as trading, banking and reserves. The connections of these potential program design elements to the distribution of compliance instruments will be discussed at this workshop, while the more fundamental questions as to whether or not these elements should (or should not) be part of program design will be discussed at the following workshop on cost containment.

DEQ recognizes the many connections between topics discussed at multiple workshops, but will focus to aim this workshop's conversation on distribution of compliance instruments in relation to other potential program design elements. A separate issue brief has been developed and a dedicated technical workshop will address whether or not the elements should be part of the program design in relation to cost containment.

The agenda for this workshop will have set times 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

- What are some approaches DEQ should consider for distribution of compliance instruments to regulated entities?

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- What sector-specific considerations should DEQ take into account when developing a methodology for distributing compliance instruments to regulated entities?
- Should DEQ hold some amount of compliance instruments in reserve to be distributed on an as-needed basis? If yes, what portion of compliance instruments should be held in reserve, and how should DEQ distribute from the reserve?
- What are the benefits or concerns with mass-based or intensity-based methods for distributing compliance instruments to regulated entities?
- What considerations are there for distribution and trading of compliance instruments if different sectors have different cap standards? For example, if one sector has a mass-based cap and another has an intensity-based cap?

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 distribution of compliance instruments:

- Program Scope: The types of entities and businesses, and their associated emissions, covered under the program will be important considerations when determining appropriate methodologies for distribution of some level of compliance instruments.
- Program stringency: Required emissions reductions over time and allowable emissions levels under a "cap" or "caps" will set the maximum level of compliance instruments that DEQ may distribute.
- Alternative compliance options: The availability of alternative compliance options may reduce the amount of compliance instruments that DEQ may want to hold in reserve.
- Cost containment: Cost-containment mechanisms, such as allowing for trading and banking of compliance instruments, creates flexibility if a regulated entity is distributed too few or too many compliance instruments.
- Impacted communities: Distribution of compliance instruments to regulated entities can have a direct impact on the ability to continue to emit. 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: www.oregon.gov/deq/ghgp/Pages/capandreduce.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.