

Greenhouse Gas Emissions Program 2021 Rulemaking: Background Brief

Dec. 18, 2020



State of Oregon
Department of
Environmental
Quality

Introduction

Why is Oregon creating a new program?

Burning fossil fuels to operate factories, heat homes and run cars produces heat-trapping gases that warm the planet and change the global climate. Climate change is already impacting Oregon's environment, outdoor recreation, air and water quality, as well as our economy and our most vulnerable communities. 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.

Greenhouse gas emissions come from nearly all parts of a diverse economy such as Oregon's. These include industrial manufacturing activities, fuels used in furnaces to heat homes and offices, and in engines to run cars, trucks, and other equipment powered by gasoline and diesel. Oregon began developing programs to reduce emissions in the 1990s, beginning with adoption of the nation's first greenhouse gas standard for new power plants. Since then, the Oregon legislature, Oregon governors, and many federal, state, and local agencies have taken steps to reduce emissions.

Despite these efforts, Oregon is currently not on track to meet science-based emission reduction targets in order to avoid the worst impacts of climate change. In addition to other ongoing emission reduction efforts at the Oregon Department of Environmental Quality, the Environmental Quality Commission and DEQ are working to develop a new program to reduce greenhouse gas emissions ready to start in 2022. This program would be part of the statewide efforts to reduce greenhouse gas emissions in Oregon, including the Clean Fuels Program, incentives for electric vehicles, energy efficiency programs, and other state and local policies.

Specifically, this rulemaking is intended to develop a regulatory program to limit greenhouse gas emissions from major sources across Oregon's economy, including:

1. Large stationary sources: this refers to emissions from large businesses such as manufacturers and factories that use fossil fuels for their operations.
2. Transportation fuels: this refers to emissions from the use of gasoline, diesel, and other fuels used to power vehicles for the movement of goods and people.
3. Liquid and gaseous fuels, including natural gas: this refers to emissions associated with the use of fuels for non-transportation purposes, such as natural gas or propane used for home and commercial heating.

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DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.

DEQ has already had extensive engagement with the public to scope the program development process and has received initial input on the direction of the program. Some specific ways this engagement has shaped the program's development are identified throughout this document. More information on the program scoping activities and stakeholder engagement can be found in the *Greenhouse Gas Emissions Reduction Program: Scoping Phase Public Engagement* report available at www.oregon.gov/deq/Regulations/rulemaking/Pages/rghgcr2021.aspx.

How will the Rules Advisory Committee function?

The EQC is a rulemaking body that considers and adopts proposed rules into administrative law. DEQ is responsible for proposing rules for EQC consideration. DEQ develops proposed rules and conducts a rulemaking process that adheres to the requirements established in the Oregon Administrative Procedures Act. The rulemaking process will include the following elements:



The Rules Advisory Committee will provide DEQ with diverse perspectives on policy proposals, including environmental justice, fiscal, public health, and economic impacts of the program. Committee members will make recommendations on program and policy options and review, evaluate and suggest draft rule language.

Recognizing the complexity, breadth, and potential impacts of this program, DEQ will not seek consensus recommendations from the committee, nor will the committee be asked to vote on specific issues. The committee's discussions will be used by DEQ in forming the draft rules, which will then be proposed for broader public review and comments as part of DEQ's rulemaking process. DEQ will document the input received by the committee to share with the commission.

Public engagement will continue throughout this process and will be important for informing the rules DEQ will propose to the commission. Public input will be solicited at each meeting of the committee. In addition to the input provided by committee members and public engagement, DEQ also expects to convene additional stakeholder discussions on specific elements or program impacts, such as environmental justice and impacted communities impacts.

DEQ has begun, and will continue, government-to-government engagement with Oregon's tribes.

Additionally, after the public notice of proposed rulemaking, DEQ will hold a formal written comment period on the draft rules, as well as one or more public hearings. DEQ will consider

comments received and adjust the proposal as appropriate before bringing the proposal to the commission for its final consideration.

Program design

Key goals

In developing this ambitious program to reduce emissions and informed by the extensive public engagement throughout 2020, DEQ has identified three primary program goals:

- Achieve significant greenhouse gas emissions reductions
- Prioritize equity by promoting benefits and alleviating burdens for environmental justice and impacted communities
- Contain costs for businesses and consumers

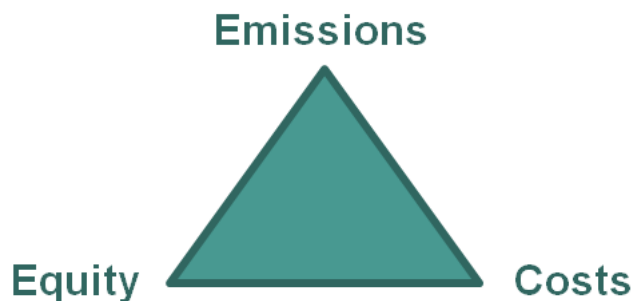
DEQ seeks to design a program that is anchored in significant greenhouse gas emissions reduction without sacrificing equitable outcomes and while containing costs, where effective, to consumers. DEQ does not believe these goals are mutually exclusive or zero-sum.

While some program design decisions may address one goal more than others, DEQ seeks to find program design decisions that achieve all three goals simultaneously, and maximize opportunities for alignment. Further explanation of these goals is below:

Emissions: As described in the introduction, the purpose of the program is to achieve reductions. DEQ has heard from many stakeholders who seek large, early emissions reductions.

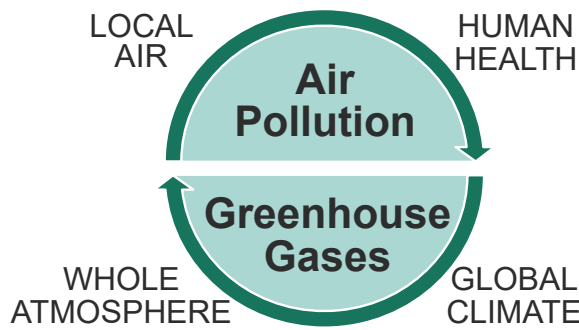
Equity: DEQ is committed to creating processes, policy and programs that both allow for meaningful engagement and result in proposed rules that provide equitable treatment. DEQ recognizes that environmental justice and impacted communities have experienced disparate environmental and public health impacts in Oregon. Developing a new program to reduce emissions is an opportunity to learn from environmental justice and impacted communities, incorporate their needs, promote benefits and alleviate burdens in the program design.

We face two key threats from air pollution in our atmosphere: poor air quality impacting health of local communities, and increasing levels of greenhouse gases impacting global climate. Greenhouse gases and air quality pollutants are co-pollutants that are often emitted at the same time. While greenhouse gas emissions may be a global challenge, the processes and activities resulting in those emissions can also pose local and regional health risks, such as deteriorating air quality along transportation corridors. Certain communities have experienced systemic neglect when it comes to addressing air pollution, have been marginalized in decision making processes, and are also experiencing some of the first and worst impacts of the changing climate.



Greenhouse gases and air quality pollutants are co-pollutants that are often emitted at the same time from one source.

Policies targeted at reducing one can result in reductions of the other.



The effects of climate change are expected to disproportionately impact communities of color, low-income communities, and rural communities. This includes less access to air conditioning to aid in withstanding heat waves, less access to transportation to reach safe ground in the event of an emergency, more exposure to health risks, less access to health insurance, and more exposure to wildfires. Additionally, rural households and industries may have fewer low-carbon alternatives available to them for certain tasks, making it difficult to avoid paying increased energy costs resulting from programs aimed at reducing emissions through economic incentives.

Costs: There are significant economic and health costs associated with inaction on greenhouse gas emissions and climate change. Many stakeholders have also requested that DEQ consider the costs of climate change to Oregon communities and the opportunity to strengthen Oregon’s economy through investments in new technology.

There could also be costs for business and consumers as a result of this program. These include costs that directly affect regulated entities as well as indirect costs that affect others, such as businesses and consumers. For example, if the program results in increased fuel costs, this would affect businesses and consumers who use fuel. DEQ seeks to contain these direct and indirect costs. Additionally, many potentially regulated entities have expressed the importance of compliance flexibility options and cost containment mechanisms as a way to ensure they are able to comply with the cap.

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.

EQC authority

This new program will be developed based on the EQC’s existing authority to regulate air pollution. This authority comes from Oregon statutes and long-standing direction from the legislature to the EQC and DEQ to control air pollution in order to protect public health and the environment.

DEQ staff understanding of EQC authority is that it includes:

- Regulate greenhouse gas emissions limits that could be source-specific, statewide, or for an area of the state
- Regulate emissions at upstream, indirect sources, such as fuel suppliers

- Allow trading within the program (meaning if an entity emits less than it is otherwise allowed to emit, it could “sell” its excess allowable emission to another entity)
- Allow for alternative compliance options (as described further below, these are additional projects or actions by regulated entities, which could be used toward compliance with the program).

DEQ staff understanding of EQC authority is that it likely does not include:

- Regulation of greenhouse gas emissions from sources outside of Oregon
- Regulation of biogenic greenhouse gas emissions
- Sale of permits or compliance instruments

Additional initial analysis regarding the EQC’s authorities in relation to the development of a new program to reduce greenhouse gas emissions in Oregon can be found in a June 2020 report to Governor Brown on program options available at www.oregon.gov/deq/ghgp/Documents/ghgCapRedf.pdf.

Program design elements

Based on the EQC’s existing authorities, there are many possible design elements that can be integrated into a new program to achieve the goals described above. The program that is ultimately proposed will likely have similarities and differences when compared to other greenhouse gas emissions reduction programs that exist in other jurisdictions. The following section highlights some of the key program design elements that have been discussed with the public and stakeholders to date. Detailed policy proposals will be discussed and developed during the RAC meetings and rulemaking process.

Key program design elements were discussed extensively during six public workshops in the Fall of 2020. In December 2020, DEQ met with stakeholders and the public to discuss how different decisions on program design elements relate to the three program goals, as shown in illustrative scenarios. For more information and an overview of these meetings and discussions, please review the *Greenhouse Gas Emissions Reduction Program: Scoping Phase Public Engagement* report available at www.oregon.gov/deq/Regulations/rulemaking/Pages/rghgcr2021.aspx.

While detailed policy proposals are being developed during the rulemaking process, DEQ has identified several program design elements, based on analysis and public comment to date, that will likely result in the best program outcomes when considering the program goals. Future policy proposals may include a different approach for these design elements as DEQ receives additional input from the Rules Advisory Committee and the public, and as additional analysis is conducted. These program design elements include:

- **Mass-based standard:** DEQ has heard strong preference for using mass-based standards, meaning the cap is an absolute quantity of allowable emissions (in contrast to an intensity-based standard). Stakeholders commented that mass-based caps are easier to quantify, more suited for tracking progress toward goals, and may more directly achieve emissions reductions when compared to intensity-based standards.

Cap: The program is expected to include a limit, or “cap,” on the allowable emissions from regulated entities. There may be a single cap for the program spanning all regulated entities, or separate caps for different regulated sectors. However, the program is unlikely to include individual cap limits for individual regulated entities. The cap(s) of allowable emissions would decline over time to achieve emissions reductions.

- **Compliance instruments:** To demonstrate that emissions are allowable under the cap, regulated entities would likely need to hold one compliance instrument for each metric ton of carbon dioxide equivalent emitted. DEQ would distribute compliance instruments at no cost to regulated entities, who would need to hold and turn in to DEQ sufficient compliance instruments to represent their allowable emissions. There are other program designs such as emissions reduction crediting that would not require the issuance of compliance instruments. However, DEQ determined the make up of the regulated sectors in this state may complicate the administration of this design and that a crediting system would not substantively change emissions outcomes when compared to a compliance instrument system.
- **Compliance period:** The program will include a timeframe during which an entity must track emissions and at the end of which, present compliance instruments in an amount that represents their regulated emissions that occurred within that timeframe. DEQ will consider multi-year compliance periods and will define any potential annual requirements during the rulemaking. These annual requirements could include presenting a portion of compliance instruments each year during the compliance period, with the balance due at the end. The program could also be designed to have annual compliance obligations that begin sometime after the program’s first multi-year compliance period.
- **Banking:** The program will likely allow for banking. This means the program will likely allow regulated entities to save any unused compliance instruments from one compliance period to meet program requirements in future compliance periods. This encourages regulated entities to reduce emissions in early years and save unused compliance instruments for use in future years when it may be more costly to reduce emissions as the cap declines. The same level of total emissions reduction is achieved over time, but may encourage or allow more flexibility for implementing larger projects to reduce emissions. Banking also helps to lower risk and uncertainty for regulated entities.
- **Trading:** DEQ believes the program should allow for trading of compliance instruments. Regulated entities could buy or sell compliance instruments through bilateral agreements between the entities themselves. Trading allows regulated entities to collectively find the least-cost emissions reduction opportunities, and constraints placed on trading would limit the affordability and possibly the achievability of emissions reductions. However, few limitations on trading may mean that the pace of direct emissions reductions by some regulated entities may be slower than others. Therefore, while trading is likely to be

included in the program, DEQ will consider whether any limits should be imposed on how much trading is allowed.

Other key program design elements identified and discussed extensively with the public to date, which could be included in the program, include:

- **Alternative compliance options:** Additional projects or actions by regulated entities that reduce emissions could be defined and made eligible to generate alternative compliance instruments, which could be used toward compliance with the program. The details of potential alternative compliance options will be discussed extensively during the rulemaking. If allowed, there are different ways alternative compliance options could be structured:
 - DEQ could allow for the use of existing offset protocols and registries (such as the Climate Action Reserve or American Carbon Registry) for greenhouse gas emissions reduction and removal projects that represent emissions reductions outside the scope of the program and that are in addition to any existing mandates. As an example, these projects might include forestry offsets, including for emissions reductions outside of Oregon. Allowing projects from existing protocols and registries to generate alternative compliance instruments is a simple and established way to produce many alternative compliance options. However, using existing offset protocols and registries likely means that DEQ would have less ability to focus alternative compliance options on driving benefits toward impacted communities in Oregon.
 - DEQ could develop protocols that reduce emissions and provide co-benefits to Oregon communities, with a particular focus on environmental justice and impacted communities. For example, DEQ could allow for alternative compliance options that result in investments in electric infrastructure such as electric vehicle charging stations, home heating systems that don't use fossil fuels or funding assistance to transit districts updating to cleaner fleets. These greenhouse gas emissions reductions might be within the scope of the program (for example, reducing transportation emissions even though transportation fuels are covered by the program). While this could moderate the additional emissions reductions these investments accrue, it might also increase benefits to Oregon communities by driving investments that improve access to cleaner technologies. The implications of allowing these types of alternative compliance options and the potential availability of them are some key considerations that would be discussed during the rulemaking.
- **Threshold:** The program could include a threshold of emissions, above which an entity is a regulated in the program. Thresholds for inclusion may account for sectoral differences.
- **Compliance instrument reserve:** DEQ could set aside some percentage or amount of compliance instruments each year from within the total cap of allowable emissions and not distribute those compliance instruments to regulated entities but rather hold them in

reserve to distribute as-needed. The compliance instruments could be distributed later in response to criteria set by DEQ in rule, such as a price threshold reached for compliance instrument trades. Without the ability to auction compliance instruments, the methodology by which compliance instruments would be distributed from a reserve will be an important point of discussion during the rulemaking.

- **Methods for distribution of compliance instruments:** As discussed above, DEQ would distribute compliance instruments directly at no cost to regulated entities, though there are different methods that could be used to determine each entity's proportion of the total number of distributed compliance instruments.
 - **Recent emissions data-** DEQ currently collects greenhouse gas emissions and other related data from entities with emissions in Oregon. Recent data that DEQ already has access to will likely be used to inform the method by which compliance instruments are distributed to regulated entities. In order to account for changes in market share over time, this distribution method could change over time. Which information is used to inform this updating distribution methodology will be an important point of discussion during the rulemaking.
 - **Output based emissions intensity-**When distributing compliance instruments, DEQ could account for the different product output levels of each regulated entity to assure the program does not encourage lower production. While there are advantages to distributing compliance instruments based on output, DEQ does not currently have the necessary output data from regulated entities to use this as the basis for distributing compliance instruments, but could consider as part of the rulemaking ways to collect new information in the future to support this type of design.
 - **Long-term emissions reduction plans-** DEQ could inform distribution of compliance instruments to each regulated entity based on requiring the development of long-term emissions reduction plans. These plans could include analysis of the feasibility of emissions reductions for a given regulated entity and a schedule for implementation of different emissions reductions strategies. Distribution of compliance instruments could be based on the amount of emissions that would occur if following the plan.

DEQ will continue to discuss these and other program design elements during the Rules Advisory Committee meetings as detailed policy proposals are developed. Feedback from the committee, public input and program analysis, will help inform DEQ's decisions on the proposed program design and proposed program rules that are planned to be presented for EQC consideration in late 2021.

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.