

Understanding Point of Regulation

Feb. 10, 2021

Background

DEQ is working to develop the Climate Protection Program to establish enforceable limits on greenhouse gas emissions from some of the most significant sources in Oregon. DEQ seeks to design a program that is anchored in significant greenhouse gas emissions reduction while supporting equitable outcomes and containing costs associated with the program.

Importance of different points of regulation

To achieve these goals, DEQ is interested in regulating some of the largest sources of emissions under the Climate Protection Program. The point at which these sources are regulated, can vary by sector, but these decisions influence total emissions covered and which entities are directly regulated by the program. This in turn impacts effective implementation and administration of the program. DEQ will also work to develop the program in a way that contains costs and minimizes regulatory burden for any potentially impacted small businesses.

Equity, emissions reductions, and costs

Greenhouse gases and air quality pollutants are co-pollutants that are often emitted at the same time. Greenhouse gas emissions may be a global challenge, but the processes and activities resulting in those emissions can also pose local and regional health risks, such as deteriorating air quality along transportation corridors. DEQ recognizes these negative impacts are disproportionately borne by environmental justice and impacted communities. Certain communities have experienced systemic neglect when it comes to addressing air pollution and are also experiencing some of the first and worst impacts of the changing climate.

Emissions reduction policies also have the potential for disproportionate costs to some consumers. This program needs to consider that lower income households spend a higher portion of their income on transportation, heating, and other energy costs, all of which are major sources of emissions. Relatedly, rural households and industries may have fewer low-carbon alternatives available to them, making it difficult to pay potentially higher energy costs.

DEQ wants to understand key air quality issues from those who may be located near or directly impacted by sources of emissions, such as from busy roads, and concerns regarding potential costs associated with new emissions reduction programs. DEQ aims to achieve this through effective engagement and centering the voices of our environmental justice partners and community-based organizations.

Large stationary sources of emissions

Stationary sources refer to businesses in Oregon that emit greenhouse gases from on-site activities, such as at a manufacturing facility or other industrial building. Emissions can be divided into two key categories:

1. Emissions from combustion of fuels, such as natural gas, petroleum, or another fossil fuel, to generate heat, steam, electricity, or power operations.



State of Oregon
Department of
Environmental
Quality

Office of
Greenhouse Gas
Programs
700 NE Multnomah St.
Suite 600
Portland, OR 97232
Phone: 503-229-5696
800-452-4011
Fax: 503-229-6124

www.oregon.gov/DEQ

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

2. Emissions from industrial processes, such as etching semiconductors or producing cement.

Many stationary sources in Oregon report emissions directly to DEQ through the Greenhouse Gas Reporting Program.¹ Large stationary sources of greenhouse gas emissions are sometimes also sources of health-hazardous criteria air pollutants, and may be located in or near communities. Requiring on-site reductions of greenhouse gas emissions may or may not also result in reductions of these co-pollutants. Regulating these industrial sources of emissions may also impact their operational costs and ability to produce goods. This could have an economic impact on consumers and could cause leakage, which means businesses and emissions relocate out of state.

For emissions regulated directly at large stationary sources, DEQ would need to consider the different industry types, on-site equipment and operational practices, and goods manufactured to determine how best to include these sources in the regulation. This would be in an effort to determine sources' ability to comply with the regulation, as well as understanding the potential for environmental justice benefits and burdens based on the surrounding communities or geography, and the type of emissions.

Options for points of regulation and key considerations

DEQ must determine which emissions, if any, would be regulated directly at the stationary source and apply a threshold for inclusion. DEQ could determine a stationary source reaches the threshold based on its combined fuel combustion and industrial process emissions, and then regulate the stationary source for those emissions. Alternatively, DEQ could determine a threshold based solely on emissions from industrial processes, and then regulate the stationary source for those emissions. In this latter case, emissions from fuel combustion would be regulated at the fuel supplier, rather than the stationary source fuel user.

For industrial process emissions, DEQ will likely place the point of regulation at the stationary sources as it is their operations producing those emissions. However, for emissions from fuel combustion, DEQ could place the point of regulation "upstream" at the fuel supplier or "downstream" at the stationary source that uses the fuel.

Most stationary sources using fuel on-site use natural gas, but some use small amounts of other fossil fuels like diesel. DEQ will likely place the point of regulation for emissions associated with non-natural gas fuel combustion at the supplier of fuel, rather than at the stationary source end user of the fuel. One reason for this is because the fuel suppliers providing non-natural gas fuels to stationary sources are unknown. Another reason is that placing a greater amount of emissions at one regulated entity simplifies the program, since a single supplier may deliver fuel to dozens of different stationary sources from varying industries.

For fuel combustion emissions associated with the on-site use of natural gas, DEQ could place the point of regulation at the natural gas supplier.

Since larger amounts of natural gas are used on-site at the stationary source, it may be of interest to regulate large stationary sources directly for their gas use. Considerations include:

- Stationary sources vary greatly in types and operations, which impacts how they combust gas and how much they use.

¹ Facilities are required to have permits in order to operate in Oregon. Each permitted air contamination source (or stationary source) in Oregon with greenhouse gas emissions greater than or equal to 2,500 metric tons of carbon dioxide equivalent is required to report its emissions to DEQ.

- The ability to reduce emissions from on-site natural gas use will vary by source, though each source will have a greater control over their own gas use than the gas supplier might.

Wherever the point of regulation is for natural gas emissions, DEQ will not double count the emissions in the program and different entities (natural gas supplier and large stationary source end user) will not be regulated for the same set of emissions.

DEQ leaning

DEQ’s leaning is to regulate industrial process emissions at stationary sources with regulated emissions above the threshold for inclusion. DEQ does not currently have a leaning on determining the threshold for inclusion in the program.

Natural gas suppliers and emissions

Natural gas is used for a variety of purposes including for cooking, heating and other activities in commercial and residential buildings. It is also used on-site at stationary sources, such as manufacturers and other industrial facilities. Natural gas used in Oregon is mainly delivered via local distribution systems operated by natural gas utilities directly to end users. The natural gas suppliers are the businesses that deliver or sell gas:

- Marketers that only sell gas
- Utilities that sell and deliver gas directly to their customers as well as deliver gas to other customers on behalf of marketers
- Interstate pipeline companies that sell and deliver gas directly to their customers

For emissions from natural gas, DEQ is considering the natural gas utilities serving Oregon as a single point of regulation for gas they deliver both to their customers and deliver on behalf of customers of marketers. The three utilities include NW Natural, Cascade, and Avista.

Options for points of regulation and key considerations

Natural gas suppliers sell or deliver natural gas for use in Oregon, but greenhouse gas emissions result when the gas is combusted at its “downstream” point of end use.

DEQ could place the point of regulation for some natural gas use emissions at large stationary sources, and emissions from other sources, such as smaller residential and commercial gas users, may be regulated at the natural gas utility. Alternatively, DEQ could regulate all this natural gas use at the natural gas utilities.

Regulating natural gas at a relatively few number of entities, at the utilities, would be simpler and more effective for tracking for DEQ and regulated community, while maintaining support for significant emissions reductions.

DEQ leaning

DEQ’s leaning is to regulate emissions from natural gas combustion at the natural gas utilities, with further consideration of regulating large natural gas users at the stationary source.

Fuel suppliers and emissions

Businesses delivering any non-natural gas fossil fuels used in Oregon are referred to as fuel suppliers, and are being considered as the point of regulation. The fuel supplier is also a point at which DEQ currently collects business information and emissions data, which can be used in the new program.

These fuel suppliers import fuels used in Oregon including liquid fuels such as gasoline and diesel, as well as gaseous fuels, such as propane. These fuels are used for a variety of purposes including transporting goods or people by vehicle, plane, boat, or otherwise, and are also used for heating homes and businesses, to power equipment, and are sometimes used on-site at stationary sources. The point of regulation for these fossil fuels (other than natural gas) would be the companies first importing the fuels into the state.

Options for points of regulation and key considerations

Fuel suppliers deliver liquid and gaseous fuels for use in Oregon, but greenhouse gas emissions result when these fuels are combusted at their point of end use. DEQ will likely place the point of regulation for emissions from these fuels at the businesses that supply the fuels into Oregon.

Tracking every fuel end user in Oregon is complex, inefficient, and burdensome for smaller users and the agency. For example, it would be difficult to regulate every building, vehicle user, and piece of equipment that relies on fossil fuels. In contrast, it is simpler and DEQ collects data to follow the fuels in bulk at the supplier-level before they are distributed for individual end uses.

DEQ leaning

DEQ's leaning is to regulate emissions from use of non-natural gas fossil fuels at fuel suppliers with regulated emissions above the threshold for inclusion. The fuel supplier would be regulated for the fuels they deliver in Oregon and are combusted in various end uses. DEQ does not currently have a leaning on determining the threshold for inclusion in the program.

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.