



Washington State’s Proposed Rule to Regulate GHG Emissions (or the Clean Air Rule)

BACKGROUND

In 2008, the Washington state legislature adopted emission reduction targets that called for limits to their greenhouse gases, returning to 1990 levels by 2020, cutting emissions 25 percent below the 1990 level by 2035, and reaching 50 percent below 1990 levels by 2050. In 2015, Governor Jay Inslee directed Washington’s Department of Ecology (Ecology) to develop a rule to cap and reduce greenhouse gases in Washington under the state’s Clean Air Act.

WASHINGTON’S CLEAN AIR RULE

Under the proposed rule, natural gas distributors, petroleum fuel producers and importers, large manufacturers, electricity generating plants, waste facilities and other organizations that are responsible for more than 100,000 metric tons of greenhouse gases will be required to reduce their emissions or sponsor projects to offset those emissions beginning in 2017. Every three years, the threshold will be lowered and more emitters brought into the program, through 2035. Organizations covered under the rule will be required to reduce their emissions by an average of 1.7 percent each year, beginning from a baseline determined by their average emissions between 2012 and 2016. To see a list of potential regulated businesses, go [here](#). (Comments on the proposed rule are due July 22, 2016.)

The greenhouse gases regulated under the rule are: Carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydro fluorocarbon (HFCs), perfluorinated compounds (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).

A covered party with covered GHG emissions that are greater than or equal to the compliance threshold in Table 1 must comply with their compliance obligation.

TABLE 1: COMPLIANCE THRESHOLD

Compliance Threshold (MT CO ₂ e/Year)	First Compliance Period (Calendar Year)
100,000	2017-19
95,000	2020-22
90,000	2023-25
85,000	2026-28
80,000	2029-31
75,000	2032-34
70,000	2035 and beyond

EITEs

Under the Clean Air Rule, industries would be identified as an EITE by their North American Industry Classification System (NAICS) code. Those industries include:

NAICS Code	Description
311411	Frozen fruit, juice, and vegetable manufacturing
311423	Dried and dehydrated food manufacturing
311611	Animal (except poultry) slaughtering
322110	Pulp mills
322121	Paper (except newsprint) mills
322122	Newsprint mills
322130	Paperboard mills
325188	All other basic inorganic chemical manufacturing
325199	All other basic organic chemical manufacturing
325311	Nitrogenous fertilizer manufacturing
327211	Flat glass manufacturing
327213	Glass container manufacturing
327310	Cement manufacturing
327410	Lime manufacturing
327420	Gypsum product manufacturing
327992	Ultra high purity silicon manufacturing
331111	Iron and steel mills
331312	Primary aluminum production
331315	Aluminum sheet, plate, and foil manufacturing
331419	Primary smelting and refining of nonferrous metal (except copper and aluminum)
334413	Semiconductor and related device manufacturing
336411	Aircraft manufacturing
336413	Other aircraft parts and auxiliary equipment manufacturing

- Production data reporting requirements

Each EITE covered party must report annual sector-specific production data. Production data must be reported for each calendar year in the baseline period and each calendar year with an emission reduction requirement.

- Determine the output-based baseline

The output-based baseline is calculated once for each EITE covered party and remains constant for all calendar years.

To determine the output-based baseline Ecology will determine the average GHG emissions and production data for the output-based baseline period (2012-2016). And divide the average emissions by the average production to get the output-based baseline.

- Determine the efficiency reduction rate

The efficiency reduction rate is calculated once for each EITE covered party concurrently with the output-based baseline and remains constant for all calendar years.

Ecology calculates the efficiency intensity distribution for a sector by using paired GHG emissions and production data to create a ranking of efficiencies for sample facilities in that sector. Ecology will compare the output-based

baseline for each EITE covered party to the efficiency intensity distribution for that EITE covered party's sector to determine the EITE covered party's efficiency reduction rate.

The amount of carbon reduction a particular facility would need to make would be based on its efficiency level compared to its national peers. Once compared to national peers, EITE businesses would be placed in one of three categories: Less efficient, average, or more efficient. The more efficient a business already is, the fewer carbon reductions it would have to make.

Once an efficiency baseline has been established for an EITE facility, it would be assigned a reduction target based on whether it is less efficient, average or more efficient when compared to other facilities in the same business sector. As long as an EITE facility meets its assigned target of efficiency it can manufacture unlimited amounts of product. In each successive three-year compliance period, Ecology would require that EITEs improve their efficiency.

■ Determine the GHG emission reduction pathway

By January 30 of the second year of each compliance period, Ecology will issue a regulatory order to each EITE covered party with its GHG emission reduction pathway in units of MT CO₂e for each calendar year in the compliance period.

Ecology will determine the GHG emission reduction pathway for each compliance period using the following approach:

- Calculate the EITE covered party's average production based on reported data for the following time period:
 - For the 2020-2022 compliance period – Use average production data from calendar years 2017-2019.
 - For EITE covered parties with a first compliance obligation after the 2020-2022 compliance period – Use average production data from the three calendar year period prior to their first compliance period with a compliance obligation.
 - For all other compliance periods, use average production data from the previous compliance period.
- The EITE covered party's GHG emission reduction pathway is calculated using the following equation:

$$RP_x = (AP \times OB) - (AP \times OB \times RR \times (Y_x - 1))$$

Where:

- RP_x = GHG emission reduction pathway for year "x" (MT CO₂e for year "x")
- AP = Average production data (units of production)
- OB = Output-based baseline (MT CO₂e/units of production)
- RR = Efficiency reduction rate (%)
- Y_x = The number of calendar years the EITE covered party has been subject to the rule. The first calendar year is designated as calendar year number one.

Compliance

Organizations can meet their obligations in the following ways:

- Cutting emissions at their facility.
- Purchasing emission reduction units from another facility in the program that exceeds its reduction requirements.
- Obtain emission reduction units (ERUs) from projects in Washington.

- Purchase carbon reduction allowances from other established, multi-sector carbon markets approved by Washington.

Reserve

Ecology is proposing to incorporate a mechanism called a reserve to achieve reductions in carbon pollution to mitigate harming the growth and expansion of businesses in Washington. The reserve would create a bank of carbon reductions used to offset new emissions coming from businesses moving into Washington, or an existing company expanding or increasing its production.

A small portion of the carbon reductions achieved by businesses regulated under the Clean Air Rule will be set aside in a special reserve account managed by Ecology. When a business intentionally scales back its production or shuts down, the resulting reduction in emissions will also be added to the reserve. EITEs will also contribute to the reserve if their production decreases.

When companies responsible for carbon pollution open or expand operations in Washington, Ecology will set aside ERUs from the reserve to offset the increase in emissions. These ERUs are then retired out of the account and not used again. If the reserve builds up ERUs over time, Ecology would use the excess to support projects with environmental justice impacts or voluntary green power renewable programs. An Environmental Justice advisory committee would be formed and have oversight of how the excess ERUs are used.

COSTS OF RULE

Ecology put together a [cost-benefit analysis](#) on the rule. Some of the key points include:

- Average 20-year present value cost of:
 - Permanent reductions is between approximately \$1.3 billion and \$2.8 billion.
 - Reductions going toward the reserve is between approximately \$30 million and \$62 million.
 - Reporting costs of approximately \$384,000.
 - Verification costs of between approximately \$33 million and \$34 million.
 - Increased reporting fees of between approximately \$2 million and \$3 million.

Ecology states that the 20-year present value avoided social emissions costs are approximately \$14.5 billion. Ecology quantified the value of reduced GHG emissions using an estimate of the social cost of carbon (SCC) developed and used by the federal government, and Ecology chose the model with the annual discount rate of 2.5 percent.

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