



AESO Legislated CO2 Regulation

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Tyler Butikofer
Staff Engineer

Carbon Price Information from AESO

- **Carbon Price:** \$40/tCO₂e in 2021 and \$50/tCO₂e in 2022
- Post 2022 there is no legislation that dictates what the CO₂ price will be. The federal government has announced its intention to bring the price up to \$170/tCO₂e by 2030. This however it is not law yet, so the AESO tests both:
 - \$50/tCO₂e real from 2023 to 2030
 - Rising carbon price (\$15 increase per year) from \$50/t in 2022 to \$170/t in 2030.

Emission Benchmarks

- Alberta's fossil fuel generators fall under the TIER regulation (technology innovation emissions reduction).
- Under this system, generators are only charged the price of carbon on emissions greater than 0.37 tonnes/MWh (note these are metric tonnes). Any carbon emissions less than 0.37 tonnes/MWh are not charged for carbon.
- There are special considerations for Cogeneration.

Cogeneration

- Under the *Technology Innovation and Emissions Reduction Regulation* (TIER), cogeneration units may be able to receive “Emissions Performance Credits” (EPC’s), which are measured as the difference in intensity of the unit and the benchmark intensity. For a cogeneration unit, the “Emissions Intensity” will usually be lower than 0.37 t/MWh, which is the benchmark intensity. The difference in benchmark and unit intensities can be multiplied by the production (MWh) to arrive at a number of EPC’s that can be created by the unit. These EPC’s can be used as a compliance mechanism under TIER, or sold/traded to other companies. Generally speaking, high efficiency cogeneration units receive a benefit under the TIER regulation (but it may differ by unit).
- In our modeling, cogeneration units are generally “must run” units: They are on irrespective of the prevailing power price. They are treated this way because most cogeneration units in Alberta operate to produce heat or steam, and electricity is a byproduct for them.



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Electric Reliability and Security for the West

Contact:

Tyler Butikofer

tbutikofer@wecc.org