



TIER regulation

Fact Sheet

If information in this document conflicts with the Standard for Developing Benchmarks (the Standard), the Emissions Management and Climate Resilience Act (the Act) or the Technology Innovation and Emissions Reduction Regulation (the Regulation), then the Standard, Act and/or Regulation prevail over this document.

Overview

The Technology Innovation Emissions Reduction (TIER) Regulation is central to emissions management in Alberta. Alberta's industrial carbon pricing and emissions trading system drives industrial facilities to find innovative ways to reduce emissions and invest in clean technology to stay competitive and save money.

Regulatory threshold

TIER applies to any facility that has emitted 100,000 tonnes or more of carbon dioxide equivalent (CO_{2e}) greenhouse gases (GHGs) in 2016, or any subsequent year, or imports more than 10,000 tonnes of hydrogen in 2023 or any subsequent year.

Facility opt-in

A facility with fewer than 100,000 tonnes of carbon dioxide equivalent GHG emissions per year may be eligible to opt-in to the TIER system if it competes against a facility regulated under TIER or has greater than 2,000 tonnes of annual emissions and is in an emissions-intensive, trade-exposed (EITE) sector.

Multiple small conventional oil and gas facilities with a common person responsible can also enter into TIER by applying to be regulated as an aggregate facility.

Benchmarking methodology

Emissions reduction obligations are determined according to a facility-specific benchmark approach and high-performance benchmark approach. In most cases, a regulated facility is subject to the less stringent of the two approaches for that facility.

Exceptions

Facility-specific benchmarks are not applicable for industrial heat or hydrogen or to facilities in the electricity sector, which are subject to the "good-as-best gas" benchmark tightened by two per cent annually beginning in 2023. Where a facility produces a product that has not received a high-performance benchmark, the facility-specific benchmark approach applies.

Facility-specific vs. high performance benchmarks

Under the facility-specific benchmark methodology, a facility is required to reduce emissions intensity relative to the facility's historical production-weighted average emissions intensity.

High performance benchmarks are set based on the average emissions intensity of the most emissions-efficient facilities (performers in the top 10 per cent) producing each benchmarked product over reference years. If there are fewer than ten facilities producing a product, the high-performance benchmark for a product is set based on the emissions intensity of the best-performing facility.

Regulated emission sources

Regulated emission sources for aggregate facilities are different than for large emitters or opted-in facilities. Further information about emissions sources for aggregate facilities can be found in the regulation, applicable standards and the [Conventional Oil and Gas TIER Fact Sheet](#).

For large emitter and opted-in facilities, regulated emissions under TIER include direct onsite emissions of greenhouse gases (see Schedule 1 of the TIER Regulation for a complete list of specified gases). Though not part of regulated emissions, indirect emissions are accounted for under the allowable emissions calculation.

Direct emissions: Direct emissions are greenhouse gases released from sources located at the facility, expressed in tonnes CO_{2e}. It does not include biomass CO₂ emissions nor the emissions from federally levied fuel at a time when an exemption certificate had been issued.

Indirect emissions: Indirect emissions are emissions associated with electricity, industrial heat and hydrogen imported by a facility. The allowable emissions for each regulated facility is adjusted for these imports. For example, the allowable emissions of a facility importing electricity will be adjusted to receive fewer allowable emissions.

Industrial process (IP) emissions: IP emissions are emissions produced during chemical or physical reactions other than combustion for energy production. IP emissions are included in benchmarks at 100 per cent of facility-specific production weighted average emissions intensity for facility-specific benchmarks or the average emissions intensity of the top 10 per cent performing facilities in a sector for the high-performance benchmarks.

Biomass emissions: Emissions of carbon dioxide from biomass combustion are excluded from net regulated emissions under TIER, as well as from imported or exported carbon dioxide, but remain part of reporting requirements for GHG inventory purposes. Methane and nitrous oxide emissions from either biomass combustion, fermentation or decomposition are included in regulated emissions.

Co-generation

Facilities with co-generation are compared to the high-performance benchmarks for heat and/or power at a facility. These facilities will benefit from the reduced emissions intensity associated with the combined production of heat and power.

Tightening rate

From 2020-2022, the stringency of facility-specific benchmarks increased by one per cent annually. Oil sand mining and upgrading had a one-time stringency calibration adjustment moving from 2020 to 2021. During this time the facility-specific benchmarks for aggregates included a fixed 10 per cent reduction target.

Beginning in 2023, the stringency of all facility-specific benchmarks will increase by two per cent annually; so, a facility with a 90 per cent free emissions allocation (or a 10 per cent emissions intensity reduction requirement) in 2020 would receive 89 per cent free allocation in 2021, 88 per cent in 2022, 86 per cent in 2023, 84 per cent in 2024 and so on.

Starting in 2023, the stringency of high-performance benchmarks will increase by two per cent annually.

For oil sands mining, upgrading, and in-situ facilities, the tightening rate will be increased to four per cent annually in 2029 and 2030.

For both facility-specific and high-performance benchmarks, the tightening rate will not apply to IP emissions.

Oil and gas facilities

Eligible conventional oil and gas facilities may apply to voluntarily enter the TIER system with an emissions reduction obligation based on the facility-specific benchmark approach. The person responsible for multiple conventional oil and gas facilities may combine multiple individual conventional oil and gas facilities into a single aggregate facility under TIER to streamline the reporting and compliance process. Product-specific high-performance benchmarks will be developed for the sector at a later date.

New facilities

TIER provides up to a three-year relief from compliance for new facilities, not including electricity generators, to allow those facilities to stabilize operations. This includes the first partial year of operation and two full years of operation immediately following. A new facility is subject to a compliance obligation using either a facility-specific benchmark (at 95 per cent free allocation) or high-performance benchmark starting in the third, full year of operation. The ramp in rate applies at five per cent for new facilities starting in the third full year of operation until the reduction target is equal to the full reduction target. For example, in 2025, the full reduction target will be 18 per cent, following a one per cent tightening every year between 2020 and 2022, and two per cent tightening every year between 2023 and 2025.

Compliance flexibility

TIER provides regulated facilities with several compliance options, including:

- On-site emission reductions.
- Use of emissions performance credits (produced and traded by facilities that exceed their emission reduction obligations).
- Use of Alberta-based emissions offsets.
- Payment into a TIER fund (for the 2023 compliance year, a price of \$65/tonne of CO_{2e} has been set. The price is set to increase \$15 per year, reaching \$170 per tonne CO_{2e} in 2030).

Under TIER, emissions performance credits, sequestration credits and emissions offsets combined may be used up to a limit to satisfy a facility's compliance obligation for a single year.

- In 2023, the credit use limit is 60 per cent of a facility's total compliance obligation.

- In 2024, the credit use limit is 70 per cent of a facility's total compliance obligation.
- In 2025, the credit use limit is 80 per cent of a facility's total compliance obligation.
- In 2026 and onward, the credit use limit is 90 per cent of a facility's total compliance obligation.

TIER also includes a credit expiry timeline for emissions performance credits, sequestration credits and emission offsets:

- Performance credits and emission offsets from 2014 or earlier expire after 2020.
- Performance credits and emission offsets from 2015 or 2016 expire after 2021.
- Performance credits from 2017 to 2022 have an eight-year expiry starting from the year following the year it was issued for.
- Emission offsets from 2017 and to 2022 have a nine-year expiry starting from the year in which the reduction was made.
- Performance credits from 2023 and onward have a five-year expiry starting from the year following the year it was issued for.
- Emission offsets from 2023 and onwards have a six-year expiry starting from the year in which the reduction was made.
- Sequestration credits have a six-year expiry starting from the year in which the reduction was made.

Compliance cost containment

The Compliance Cost Containment Program (CCP) provides support to regulated facilities in emissions-intensive, trade-exposed sectors experiencing economic hardship due to compliance costs under the TIER system.

Facilities with a first year of commercial operation prior to 2023, and for which total TIER compliance costs are greater than three per cent of facility sales, or 10 per cent of facility profits, may be eligible for the following support mechanisms:

- Additional compliance flexibility (exception to the credit use limit).
- Additional free benchmark allocations.

Facilities accepted into the CCP are granted a cost-containment designation for a five-year period.

Review period

The amended TIER Regulation came into force January 1, 2023, and will remain in place until 2030, with review in 2026.

Emissions quantification and reporting

Facilities are subject to quantification and reporting standards. Facilities emitting 100,000 tonnes or more of CO₂e per year, importing more than 10,000 tonnes of hydrogen per year, opted-in facilities and aggregate facilities are required to submit annual compliance reports prior to June 30 of the following year. Facilities emitting more than 1,000,000 tonnes of CO₂e per year are also required to submit an annual forecasting report.

Annual compliance reports are required to be verified by a qualified third-party assurance provider.