

TIER Amendments - Conventional Oil and Gas

Technology Innovation and
Emissions Reduction Regulation

Alberta Environment and Parks

August 12, 2020



Outline

- Background
- Summary of Amendments
- Review: Conventional Oil and Gas Treatment
- 2020 Application Processes and Person Responsible Reconciliation for Existing Aggregate Facilities
- Forms and Resources
- Next Steps and Important Dates

Background

Background: TIER Regulation

- The TIER Policy was introduced in fall 2019 and took effect January 1, 2020. It regulates greenhouse gas emissions from Alberta's industrial facilities.
- Feedback received from regulated stakeholders since the implementation of the TIER regulation:
 - alignment of opt in criteria more closely with federal requirements,
 - **reduce administrative burden for regulated conventional oil and gas facilities,**
 - administrative challenges related to covid-19 pandemic.

Background: TIER Amendments

- AEP developed changes to TIER to increase competitiveness, reduce administrative burden and make other regulatory improvements through a series of amendments to the TIER regulation.
- Amendments were signed on July 28, 2020.
 - Detailed in Order in Council 233/2020 available on the Queen's Printer website or the TIER website.
- Amendments address stakeholder feedback while maintaining integrity of the TIER framework, acceptability with the federal approach and expected environmental outcomes.

Summary of Amendments

Summary of Amendments

1. Amendments to TIER voluntary opt-in eligibility.
2. **Amendments to administrative requirements for the conventional oil and gas facilities regulated under TIER.**
3. Other administrative amendments to reduce regulatory burden and further implement the TIER regulatory framework.

Summary of Amendments

- **Previously:**
 - “Person responsible” for a conventional oil and gas facility based on EPEA approval holder, AER authorization or ownership.
 - Stakeholder feedback suggested significant administrative burden in cases where operation of a regulated facility is leased to a third-party.
 - Difficulties procuring production and fuel use data necessary for TIER reporting and compliance from third-party operators,
 - Challenges coordinating and utilizing federal fuel charge exemption certificates between person responsible and third-party operators,
 - Third-party operators may be without recourse and forced to pay the fuel charge if the person responsible does not opt-in to TIER.
 - Significant delays in the transfer of EPEA and AER approvals and licenses when facility sales occur
 - Difficulties on the part of the person responsible distributing/reconciling TIER compliance costs back to a third-party operator.

Summary of Amendments

- **Amendment:**
 - Aligned ‘person responsible’ for a conventional oil and gas facility with the facility operator (entity reporting to the AER/Petrinex).
 - In cases where an ‘operator’ does not exist as per the regulation, person responsible defaults to:
 - EPEA approval holder if one exists for facility,
 - AER license holder if (if no EPEA approval exists),
 - Owner (if no EPEA approval or AER license exists).



Summary of Amendments

Other conventional oil and gas amendments:

- Extend the deadline for the creation of new aggregate facilities under TIER for the 2020 compliance year from September 1, 2020 to November 1, 2020
- Enable individual conventional oil and gas facilities to be added to an existing aggregate facility within a compliance year, up until December 1.
- Extend the deadline for facility-specific benchmark applications for the 2020 compliance year from September 1, 2020 to January 15, 2021.
 - Note: This change is only material to aggregate facilities electing to use 2019 as the baseline year for 2020 compliance. Benchmarking for facilities using the default 2020 baseline for 2020 compliance will be handled through the compliance reporting process (June 30 deadline)
- Added deadline for benchmark unit application for 2020 – January 15, 2021.

Review: Conventional Oil and Gas Treatment



Conventional Oil and Gas

- Conventional oil & gas facilities of any size below the 100,000 tonne threshold may apply to be regulated under TIER
- Regulated emissions: stationary fuel combustion emissions.
- Aggregation of multiple facilities to streamline reporting and compliance.
- Emission intensity reduction requirement of 10% relative to a rolling 3-year baseline (unique baseline approach for 2020 compliance year)
- Aggregate facilities are not subject to annual stringency tightening.
- Implementation of high performance benchmarks considered for the 2021 compliance year.



Baseline Year – 2020 Compliance

- Same year baseline/benchmark and compliance for 2020.
 - True-up obligation for 2020 effectively 10% of an aggregate facility's stationary fuel combustion emissions.
 - Decrease administrative costs and adds predictability for regulated conventional oil and gas facilities in 2020,
 - Provide additional time to address the issue of person responsible.
 - Benchmark will continue to be rolled in, building to three baseline years.
 - Consideration may be given to excluding 2020 going forward if significant variances from normal.
 - If individual aggregates very interested to submit and use 2019 benchmark year please contact department at AEP.GHG@gov.ab.ca



Quantification Methods

- Department has received comments on draft quantification methods.
- Comments are being considered in the finalization of the quantification chapter.
 - Number of comments on potential frequency of fuel gas sampling which are being carefully considered.
 - Context is still to provided options for those that are seeking simplified reporting as well as those that want to invest in more accurate, site specific, quantification.
- Publication of a final chapter expected in September.



Quantification Methods

Level	Methods
Fuel Consumption	
0	Method 1 – Single gas stream approach
1	Method 2 – Multiple gas stream approach
	Method 3 – Third party supplied fuels
Carbon Dioxide Emissions	
0	Method 4 – Single default CO ₂ emission factor
1	Method 5 – Default CO ₂ emissions factors for non-variable fuels
	Method 6 – Higher heating value correlation
	Method 7 – Gas compositional analysis



Quantification Methods

Level	Methods
Methane and Nitrous Oxide Emissions	
0, 1	Method 8 – Default emission factors for non-variable fuels (Table 15-5)
0, 1	Method 9 – Variable fuel sector-based emission factors (Table 15-6)
0, 1	Method 10 – Variable fuel technology-based emission factors (Table 15-7)
Production	
0, 1	Method 11 – Petrinex production volumes



Benchmark Unit Options

- A number of possible benchmarking units are made available to recognize the variety of facilities and aggregate configurations in the sector.
- Option 1 (pre-defined units):
 - Production (in m³ oil equivalent),
 - Disposition (in m³ oil equivalent),
 - Receipts (in m³ oil equivalent).
- Option 2 (metric correlation method):
 - Identifies one or multiple production accounting metrics that produce a linear relationship with the aggregate facility's emissions.
 - The identified production accounting metrics would then be requested to be used as the benchmark unit for the aggregate.



Benchmark Unit Options

- A benchmark unit must meet the following criteria to be assigned to an aggregate facility:
 - A strong month-to-month correlation between the requested unit and the aggregate facility's emissions,
 - Minimizes variability of month-to-month emissions intensities over the course of a year,
 - Reasonably represents the composition and operation of the aggregate facility.
- A benchmark unit may be requested by the person responsible for an aggregate facility (application deadline is **January 15, 2021** to apply for a unit for 2020 compliance year-onwards).
 - If approved, the requested benchmark unit will be assigned to the aggregate facility.
- If a benchmark unit application is not received for an aggregate facility:
 - The most appropriate benchmark unit will be determined by AEP and assigned by the Director according to the best fit with the established benchmark unit criteria.

2020 Application Processes and Person Responsible Reconciliation for Existing Aggregate Facilities



2020 Application Process – Unregulated Facility

- Conventional oil and gas facilities with emissions less than 100,000 tonnes **not yet regulated in TIER:**
 - Do not enter TIER and pay the federal fuel charge – this may be best for facilities with very little fuel consumption.
 - Opt-in to TIER as a single facility (receive ‘large emitter treatment’) for 2020 by November 1, 2020 deadline – this may be a preferred option for sites with CO₂ enhanced oil recovery projects.
 - Apply to enter along with other conventional oil and gas facilities as a brand new aggregate facility by November 1, 2020 deadline.
 - Apply to be added to an existing aggregate facility by December 1, 2020 deadline.



Existing Aggregate Facilities

- Modifying existing aggregate facilities to reflect new ‘person responsible’ definition is elective/by application for the 2020 compliance year, but becomes mandatory for 2021-onwards.
- Regulated Conventional oil and gas facilities that are already part of an existing aggregate for the 2020 compliance year will:
 - 1) Stay part of existing aggregate for 2020 under previous definition of person responsible, reconcile aggregates for 2021 compliance year **unless**
 - 2) New person responsible, based on amended definition, applies to take responsibility for individual conventional oil and gas facilities. The facilities will then be removed from their old aggregate.



Existing Aggregate Facilities

- Companies that meet the new definition of person responsible for conventional oil and gas facilities under TIER may:
 - Submit an application for designation of a new aggregate which includes sites not yet regulated under TIER as well as sites already regulated under TIER under another company's aggregate
 - Submit an application to add facilities to one of their existing aggregates including sites already regulated under TIER by prior persons responsible.
- Applications related to changes to person responsible for 2020 due by Sept 18, 2020
- Applications will be processed as a batch and any changes will be communicated to all affected aggregates.
 - We will include next steps to take in notifying ECCC and CRA



Existing Aggregate Facilities

- Updates to person responsible can alternatively be made for 2021 before December 1st, 2020.
- In general conventional oil and gas facilities can be removed from an aggregate for the upcoming year by application before December 1st.
 - This timing supports review and required exemption certificate updates and is therefore recommended timing for additions to an aggregate which are to have affect for January.
- Forms for updates to apply for 2021 are planned to be made available before the end of September.
- With amendments to TIER which allow for the addition of facilities to aggregates throughout the year the department recommends removing non-active facilities for 2021.



Application Review

- Submission will be reviewed and will receive:
 - An approval
 - A rejection
 - A request for information or correction and resubmission
- We will provide further information with your approval about what your next steps should be under the federal exemption process.



Notification of Changes

- Conventional Oil and Gas facilities are required to submit a notification of certain changes to the facility as set out in section 25 of the regulation.
 - These include changes to the person responsible not resulting from the amendment to TIER.
- The form can be found here:
<https://www.alberta.ca/technology-innovation-and-emissions-reduction-regulation.aspx#toc-7>
- Also note similar notification to ECCC is required.

Forms and Resources



Resources

- An updated version of the TIER Regulation was published on July 29, 2020.
- All associated and updated versions of Standards and Forms can be found on the [TIER website](#).



Guidance on Facility Integration

- Under the regulation a facility is:
 - a plant, structure, thing or site, or
 - (ii) any 2 or more contiguous or adjacent plants, structures, things or sites
 - (A) that are operated and function in an integrated fashion, and
 - (B) for which the same person is the person responsible,
 - where one or more activities listed in any of sections 2 to 11 of the Schedule of Activities to the *Environmental Protection and Enhancement Act* occur, including all the buildings, equipment, structures, machinery and vehicles that are part of the activity or activities;
- Where they operate in an integrated fashion multiple Petrinix IDs should be considered as single conventional oil and gas facility.



Aggregate Facility-Specific Benchmark Form

- A form is currently under development to support aggregates who wish to pursue a 2019 benchmark.
- These would typically be facilities who have made emission intensity improvements in 2020.
- Please contact the department if you are intending to apply for a 2019 benchmark at AEP.GHG@gov.ab.ca.

Next Steps and Important Dates



Next Steps and Important Dates

- September 1, 2020
 - Deadline for opt-in benchmark applications for 2020 compliance year (contact the department if this is creating challenges)
 - Deadline to apply to become an opted-in facility for 2021 and subsequent years
- September 18, 2020
 - Deadline to request updates related to person responsible for 2020.
- November 1, 2020
 - Deadline for facilities to apply to be designated as a new aggregate facility for 2020
 - Deadline to apply to become an opted-in facility for 2020 and subsequent years
- December 1, 2020
 - Deadline to add facilities to an existing aggregate facility for the 2020 compliance year
 - Deadline to apply to remove facilities from an aggregate facility for the 2021 compliance year
- January 15, 2021
 - Deadline to submit a facility specific benchmark application for aggregate facilities.
 - Deadline to request a benchmark unit application for aggregate facilities.