

Compliance year 2020 Conventional Oil and Gas Workshop

Technology Innovation and Emissions Reduction
Regulation (TIER)

Climate Implementation and Compliance
Alberta Environment and Parks
March 2021



Alberta

Agenda

- Introductions and organization
- Background and Regulatory Overview
- Updates
 - Person responsible change applications
 - Aggregate facility changes for 2021
 - Benchmark and Benchmark Unit Applications
 - Benchmark and benchmark unit assignment

Question Period #1 (15-20 min)

- Reminders, Prior Results and Learnings
- Third Party Verification Requirements
- Alberta Greenhouse Gas Quantification Methodologies – Chapter 15

Question Period #2 (15-20 min)

- Methods of Compliance
- Specified Gas Reporting Regulation Requirements
- Compliance Form Overview (video walkthrough)
- Policy Updates and Ongoing Implementation
- Key Dates and Deadlines Review

Final Question Period (15-20 min)

Key Take Aways

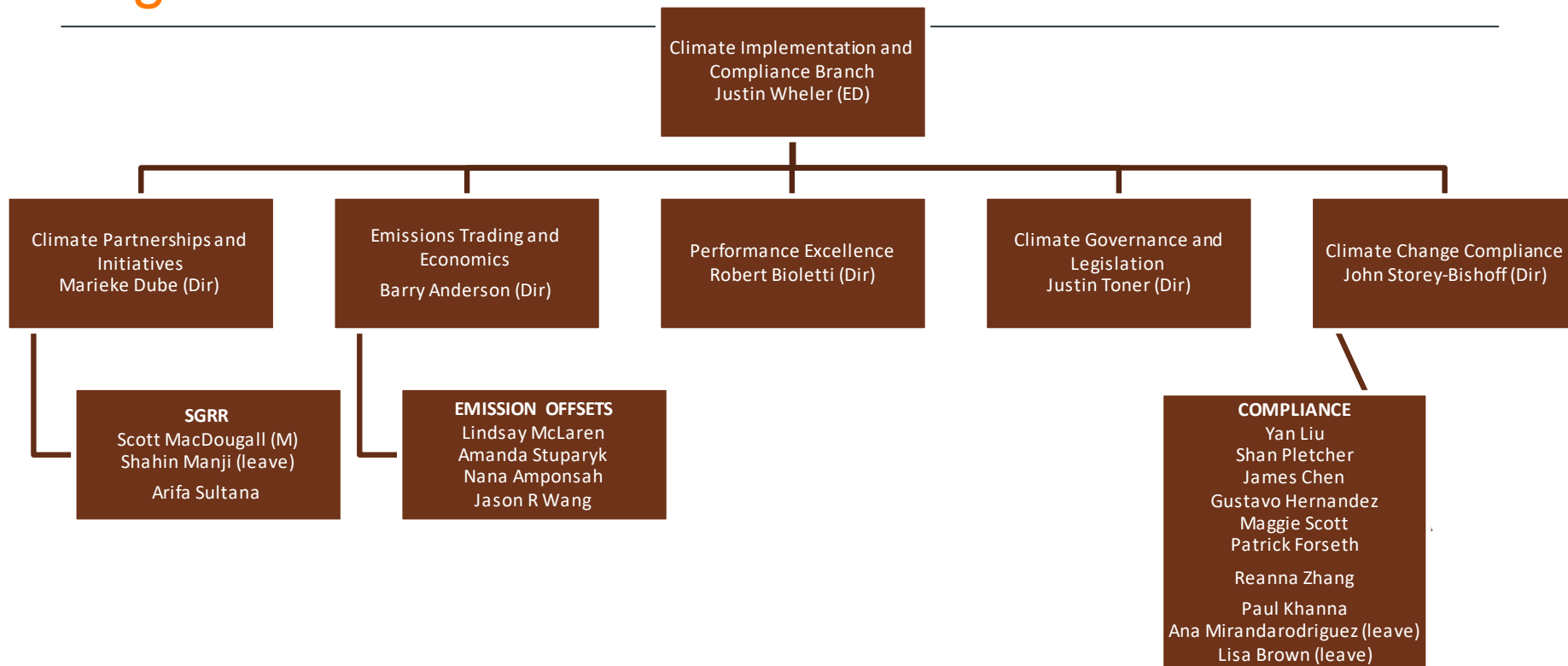
- Benchmarks and benchmark units will be assigned to each aggregate facility in April 2021.
- Person responsible to submit verified compliance report by June 30, 2021 for the 2020 compliance year
- Required true-up (credits retired or fund payment made) should be complete before submitting your compliance report

Introductions

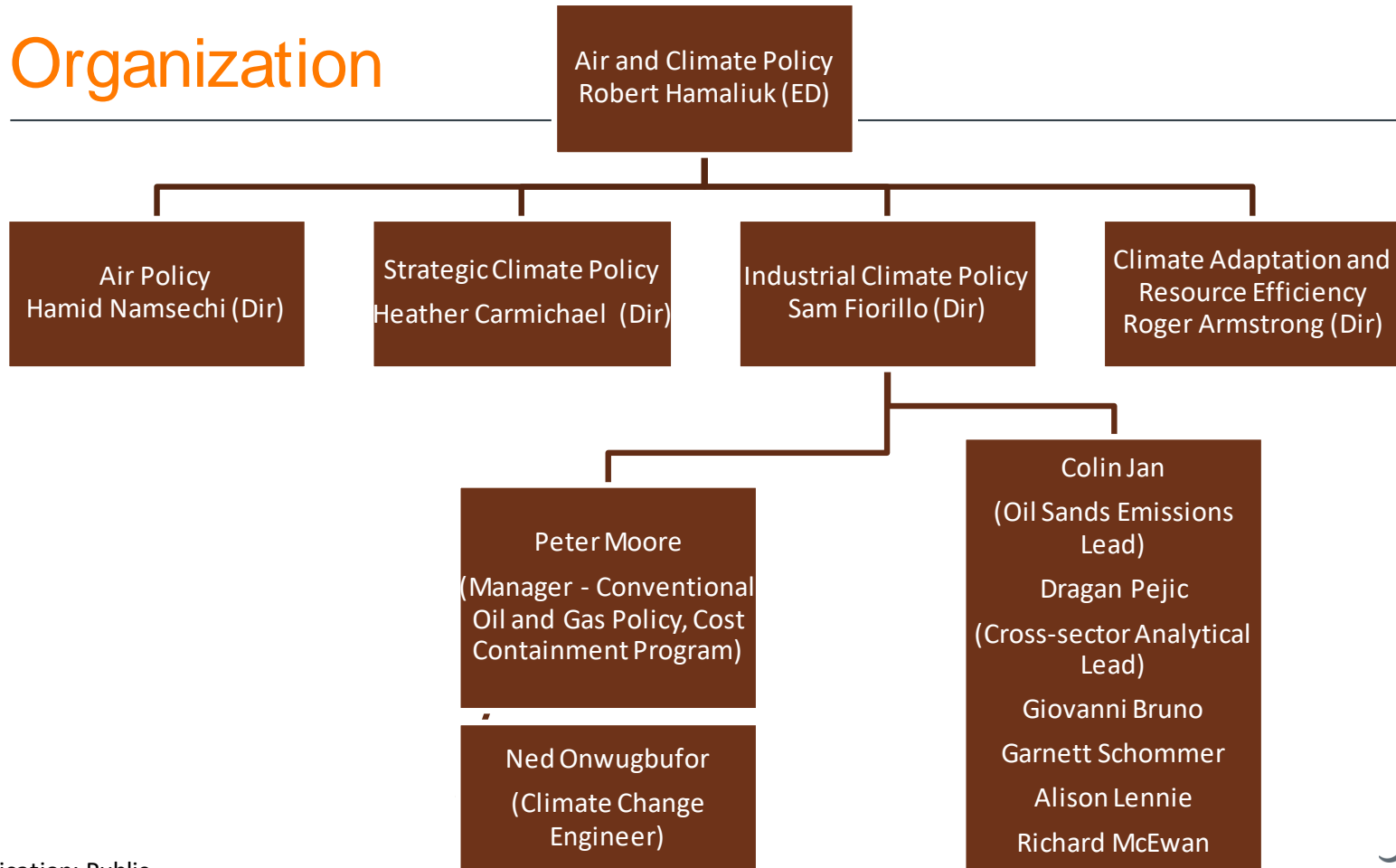


Climate Implementation and Compliance
Branch/Industrial Climate Policy Branch
Policy Division
Alberta Environment and Parks

Organization



Organization



Background and Regulatory Overview



Regulatory Background

- Specified Gas Emitters Regulation (2007 – 2017)
 - Facility specific baselines based on historical performance
 - Based on direct emissions only
- Carbon Competitiveness Incentive Regulation (2018 – 2019)
 - Output based allocation system using assigned and established benchmarks
 - Based on direct and indirect emissions
 - Provincial carbon levy in place until June 2019
 - Opted-in facilities

Overview of TIER

- Technology Innovation and Emissions Reduction Regulation (TIER) (2020 – present)
 - TIER implemented on January 1, 2020
 - Regulated facilities:
 - Annual emissions above 100,000 tonnes of carbon dioxide equivalent in 2016 or subsequent; or
 - Voluntarily entered the regulation (including additional of conventional oil and gas **aggregate facility** opt in)
 - <https://www.alberta.ca/technology-innovation-and-emissions-reduction-regulation.aspx> (General TIER website)
 - <https://www.alberta.ca/conventional-oil-and-gas.aspx> (Conventional O&G)
 - TIER is a recognized provincial program under the *Greenhouse Gas Pollution Pricing Act* for 2020 and 2021

Overview of TIER

- Facilities must comply with the least stringent of:
 - Facility-Specific Benchmark (FSB)
 - 90% of historical emissions intensity
 - High Performance Benchmark (HPB)
 - In regulation and can be set or updated through Ministerial Order
 - No tightening rate
 - Not currently implemented for aggregates
- Regulated Emissions
 - Large emitters and opted in facilities – regulated for all direct emissions with accounting for imported heat, hydrogen and electricity
 - Conventional oil and gas facilities/aggregates – regulated for stationary fuel combustion emissions only.

Overview of Standards

- Four standards under TIER:
 - Standard for Developing Benchmarks
 - Standard for Completing Greenhouse Gas Compliance and Forecasting Reports
 - Standard for Validation, Verification and Audit
 - Standard for Greenhouse Gas Emission Offset Project Developers
 - Part 1 of these standards are law and are binding. Part 2 are also requirements, but not binding.
- Alberta Quantification Methodologies (AQM)
 - Provides mandatory quantification methodologies for regulated facilities
 - Is made mandatory through standards
 - Chapter 15 outlines requirements for conventional oil and gas facilities/aggregates
- All standards and the AQM available on TIER website.

Overview of Standards

- Standard for Developing Benchmarks
 - Provides methodologies for developing facility-specific benchmarks and high performance benchmarks.
 - Provides treatment of indirects, cogeneration, and self generation of electricity in benchmark setting (not currently applicable to COGs/aggregates).
 - Deals with entry into the regulation through opt-in as well the cost containment program.
- Standard for Completing Greenhouse Gas Compliance and Forecasting Reports
 - Facility requirements for reporting and forecasting
 - Provides level requirements for selecting quantification methodologies

Overview of Standards

- Standard for Validation, Verification and Audit
 - Requirements for third party assurance providers (validators and verifiers) and auditors.
 - Applicable to verification of compliance reports, benchmark applications, data submissions, and emission offset project reports.
- Standard for Greenhouse Gas Emission Offset Project Developers
 - Requirements for developing emission offset projects

Annual Compliance Reports

- Under TIER each regulated facility must submit an annual compliance report, which must be verified by a qualified third-party verifier.
- Verified annual reports must be submitted by June 30, 2021 for the 2020 compliance year.
- Requires positive verification opinion – any material errors must be resolved before submission
- There are differences in compliance report content and requirements for large emitters/opted in facilities vs aggregate facilities.
 - Ensure your verifier is aware of these differences.

Review: Aggregate Benchmarking Process for 2020 Compliance Year

- In Spring 2020 AEP announced a unique approach for benchmarking aggregate facilities for the 2020 compliance year to reduce administrative burden.
- Default benchmark option – in-year baseline for 2020 benchmark
 - 2020 compliance obligation effectively 10% reduction of 2020 stationary fuel combustion emissions.
 - No benchmark application required to be submitted for 2020.
- Optional benchmark unit application process
 - opportunity to submit application based on publically reported fuel volumes and, if applicable, non-reported fuel volumes.
 - If no benchmark unit application received, representative unit assigned by Director based on evaluation of publically-available data.

Review: Aggregate Benchmarking Process for 2020 Compliance Year

- Optional – 2019 baseline/benchmark application
 - Flexibility for aggregate facilities to submit a verified application to use 2019 emissions to set the benchmark for 2020 compliance.
 - Obligation for 2020 - 10% intensity reduction of stationary fuel combustion emissions relative to 2019 emissions.
- Benchmark and benchmark unit assigned by Director via letter under any option, based on evaluation of applications and/or publically available data.
 - AEP will reach out to reporting officials to discuss in cases where additional information may be required, or in special cases where assessment of publically available data may not produce a reasonable benchmark or benchmark unit.

Updates – Aggregate Changes

- Person Responsible Change Applications
 - Complete – letters confirming outcome should have been received.
- Other aggregate change applications for 2021 changes
 - Department led clean up complete.
 - Applications for creation of new aggregates for 2021, aggregates revocation and facilities removals for 2021 have been processed and letters of confirmations sent.
 - All applications for facilities additions received by March 1st for 2021 have been processed and confirmations sent.
 - New applications for facilities additions to existing aggregates are reviewed on an ongoing basis - processed in the order they are received.

Updates – Benchmark Apps

- Benchmark applications for optional 2019 baseline (for 2020 compliance) and benchmark unit applications
 - Review underway – anticipated completion and notification in April 2021.
- Benchmark and benchmark unit assignments for default 2020 baselines for 2020 compliance (if no 2019 application or benchmark unit application received)
 - Anticipated assignment and notification in April 2021.

Questions?



Reminders, Prior Periods Results and Learnings



Prior Year Results

<https://open.alberta.ca/publications/specified-gas-emitters-regulation-and-carbon-competitiveness-incentive-regulation-results>

Compliance Year	Emission Offset Credits Submitted (Mt CO ₂ e)	EPCs Submitted (Mt CO ₂ e)	Fund Credits Submitted (Mt CO ₂ e)	Total Compliance (Mt CO ₂ e)	Fund Payment (\$Million)
2007 (half year)	0.9	0.2	3	4.1	45.2
2008	2.9	0.6	5.9	9.4	88.3
2009	3.8	1.5	4.4	9.7	66.3
2010	3.9	1.9	5.3	11.1	78.9
2011	5.4	0.8	4.2	10.4	62.9
2012	3	0.7	5.9	9.5	93.7
2013	2.2	1.3	6.3	9.8	94.4
2014	2.3	1.3	5.6	9.3	84.3
2015	0	0.3	9	9.3	135.7
2016	0.8*	1	10.3	12.2	206.5
2017	9.2*	6.2	3.1	18.5	94
2018	8.0*	3.9	17.8	29.7	533.5
2019	9.9*	5.3	15.9	31.1	476.1
Total	52.3	25.0	96.7	174.1	2059.8

Note: Mt = Million Tonnes

*Includes 2.6 Mt total from 2016-19 of additional credits issued under section 7(1.2) of the SGER and section 16(3) of the CCIR

Figures are subject to change as a result of auditing and are rounded for presentation purposes.

Updated November 4, 2020



Learnings – Usage of Credit

- Reminders
 - Max credit usage for 2020 60% of tonnes owed
 - 40% may be pre-2017 vintage
 - 2014 and older credits expire after the 2020 compliance year. (68kt offsets, 194kt EPC)
- To improve (based on prior years submissions from large emitters and opted in facilities)
 - Credits need to be held by person responsible.
 - When using EPCs, credits should be in the account of the facility using them.
 - Separate tabs in compliance report for offsets and EPCs. Make sure they are in the right place.
 - Serial ranges should be correct and match reported totals.

Learnings – Verification

- To improve
 - Review of production quantities
 - Reporting consistency with quantification requirements
 - Confirmation of correct application of benchmarks

Learnings – Deviation Requests

- Reminders
 - Where you are unable to fully implement the prescribed quantification requirement a deviation request can be made.
 - Deviations do not cover cases the prescription can be applied but is not preferred.
 - Where the prescribed quantification is not followed and no deviation is in place a verification finding should result.
 - Deviations are time limited and part of the request is to outline how the prescription can be met in subsequent reporting.
 - This is also a very useful feedback for us to understand areas where the quantification is not immediately implementable and may sometimes lead to updates to the quantification requirements.

Learnings – Confidentiality

- Reminders
 - When you indicate you are requesting confidentiality in the form your submission should include a request letter
 - Letter should clearly justify how the data requested meets the criteria under the regulation
 - We will reject unjustified requests. Please review our decision letter

Obtaining Verification



Verification Requirements

Verification Requirements

- All facilities (including opted in and aggregate facilities) regulated under TIER must hire a third party assurance provider to verify their compliance report.
- Purpose of verification is to provide assurance to the department that there are no material errors in the facility's compliance report.
- For the compliance submission on June 30, 2021, the facility is required to submit a verification report along with their compliance report.
- The report must include:
 - Statement of Verification
 - Statement of Qualifications
 - Conflict of Interest Checklist
- Approx. 460 facilities require verifications for 2020 more than doubling from 2019
- **Verifications may take up to 6 weeks or more to complete depending on complexity. Start early.**

Verification Requirements

- Standard for Validation, Verification, and Audit outlines the requirements for the verification process
 - Section 8 outlines the requirements specifically for aggregates.
- Highlights of a verification process:
 - Conflict of Interest (COI) assessment (COI form)
 - Execution of contract
 - Provision of complete materials included in the verification process (CR, supporting evidence, and calculations, etc.)
 - Verification plan (including risk assessment and sampling plan)
 - Data and information request
 - Site visit
 - Review and analysis of data and information gathered
 - Develop and communicate findings and issues
 - Resolve and finalize issues and findings
 - Verification report (report template)

Verification Requirements

- Verifiers are required to conduct a site visit unless otherwise authorized by the director
- Requirements for site visits:
 - Verifier may use a risk-based approach to determine which facilities to be included
 - Verifier is encouraged to select different types of COGs to conduct site visits (as appropriate and consistent with risk assessment)
 - Verifier is required to visit the location where data is managed for the aggregate facility

Verifications for Aggregate Facilities

- Due to COVID-19, the director granted authorization to verifiers to conduct “virtual” site visits up to September 1, 2021:
 - 2020 Compliance reports
 - Benchmark applications
 - Emission offset project reports
- Requirements of a virtual site visit are provided in the verification standard

Verification Requirements

- Part 1 outlines the mandatory requirements for third party assurance providers and auditors
 - Facilities are responsible to ensure that the selected verifier meets regulatory requirements
 - Additionally, verifiers are required to complete verification training in order to conduct verifications of 2020 compliance reports
 - If you are unable to find a verifier, please reach out at AEP.GHG@gov.ab.ca.
- Contraventions of the following are offences under the regulation:
 - 7(5), 15(6), 17(5) – third party assurance providers must follow the Standard for Validation, Verification, and Audit
 - 33(f), 33(g) – the facility and third party assurance provider responsible for ensuring the third party assurance provider meet qualification requirements

Verification Requirements

- Verifiers may only conduct verifications for:
 - A regulated facility for 5 consecutive years followed by a two year break
- Regulation requires a positive opinion in the Statement of Verification
- Qualified opinions are reviewed on a case-by-case basis
- Verification report template used for verifications:
 - <https://www.alberta.ca/assets/documents/aep-tier-verification-report-template.docx>

Verifications for Aggregate Facilities

- Section 8.1 of the Standard for Validation, Verification and Audit provides requirements for verification of aggregate facilities.
- One verification plan, one verification report, and one set of signed forms required for an aggregate facility
- Confirm that sites within the aggregate meet definition of COG under TIER
- Assess whether the facility's method to compile x, y coordinates for COGs is reasonable
- Conduct review of boundary files for sites with greater than 10 KT CO₂e
- Assess that data for all COGs have been included in the assertion
- Assess whether chapter 15 quantification methodologies were followed
- Review source data (i.e. Petrinex, third party invoices) used for assertion

Government Re-Verifications

- Re-verifications are conducted by the department on a portion of submissions (compliance reports and emission offset project reports)
- The department establishes master agreements with verifiers and issues statements of work for annual re-verifications
- Facilities and projects are selected based on a risk-based and random selection process
- Generally, the process follows the verification standard with some specific focuses based on individual facilities and projects

Alberta Greenhouse Gas Quantification Methodologies (AQM)

Chapter 15 for Aggregate Facilities

AQM Objectives

- Provide consistent and standardized approach to quantifying emissions, production and other reported parameters
- Provide level playing field for facilities within the same sector and across all sectors
- Standardize benchmarking approaches for regulated facilities
- Align with federal greenhouse gas reporting where appropriate

Mandatory Quantification Methodologies

- Mandatory Quantification Methodologies for 2020
 - Chapter 1 – Stationary Fuel Combustion
 - Chapter 4 – Venting
 - Chapter 5 – On-Site Transportation
 - Chapter 8 – Industrial Processes
 - Chapter 12 – Imports
 - Chapter 13 – Production
 - Chapter 14 – Carbon Dioxide Emissions from Combustion of Biomass
 - **Chapter 15 – Aggregate Facilities**
 - Chapter 16 – Cogeneration Benchmark Calculation
 - Chapter 17 – Measurements, Sampling, Analysis and Data Management

Aggregate Facilities



Chapter 15

Aggregate Facilities

- Aggregate facilities contain two or more conventional oil and gas facilities (COG)
 - A COG may contain several sites that are integrated in operation
- Aggregate facilities are regulated for stationary fuel combustion emissions only
- Quantification methodologies rely heavily on Petrinex reported data (fuel consumption and production)

Level Classification

Level	Methods
Fuel Consumption	
0	Method 15-1 – Single gas stream approach
1	Method 15-2 – Multiple gas stream approach
	Method 15-3 – Third party supplied fuels
Carbon Dioxide Emissions	
0	Method 15-4 – Single default CO ₂ emission factor
1	Method 15-5 – Default CO ₂ emissions factors for non-variable fuels
	Method 15-6 – Higher heating value correlation
	Method 15-7 – Gas compositional analysis

Level Classification

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

Aggregate Facilities – Fuel Consumption

- Method 1: Single fuel gas stream approach
 - Assumes one fuel type consumed in COG
 - Facility may sum fuel consumed by COGs (reported in Petrinex)
- Method 2: Multiple fuel gas stream approach
 - Assumes multiple fuel gas streams (with different gas compositions and high heating values (HHVs))
 - Quarterly gas sampling required
- Method 3: Fuel consumption based on internal facility or third party metering/invoices
 - Fuels not reported in Petrinex such as fuel gases or non-variable fuels (propane, diesel, and gasoline)
 - For non-variable fuels, default emission factors are used

Aggregate Facilities – CO₂ Emissions

- Method 4: CO₂ emissions based on default fuel gas emission factor
 - Rich gas composition:
 - 80% C1, 15% C2, 5% C3
 - Default emission factor is 0.00233 tCO₂/m³
 - Use with fuel volumes calculated by Method 1
 - Equation: $CO_{2,p} = v_{fuel,p} \times EF_{ene}$

Aggregate Facilities – CO₂ Emissions

- Method 4: CO₂ emissions based on default fuel gas emission factor
 - Generally, same method must be used for benchmarking and compliance reporting
 - Sales gas composition may be used if aggregate facility would like to:
 - apply gas compositions or HHV for compliance reporting, but do not have required data for benchmarking; or
 - change methods from using default emission factor to gas compositions or HHVs for compliance reporting, but do not have data for benchmarking,
 - Sales gas composition:
 - 98% C1, 1% C2, 0.3% C3, 0.1% C4, 0.3% CO₂, 0.3% N₂
 - Default emission factor is 0.00190 tCO₂/m³

Aggregate Facilities - CO₂ Emissions

- Method 5: CO₂ emissions based on default emission factors for non-variable fuels not reported in Petrinex
 - Default CO₂ emission factors for non-variable fuels - propane, diesel, gasoline
 - Use with fuel volumes calculated by internal metering or third party metering or invoices

Aggregate Facilities - CO₂ Emissions

- Method 6: CO₂ emissions based on fuel gas correlation
 - Method consistent with federal Greenhouse Gas Reporting Program (GHGRP)
 - Equation is based on a high heating value correlation:

$$CO_{2,p} = v_{fuel,p} \times (60.554 \times HHV_p - 404.15) \times 10^{-6}$$

- Method requires measured high heating values for the fuel gas
- Use with fuel volumes calculated by internal facility metering or third party metering or invoices

Aggregate Facilities - CO₂ Emissions

- Method 7: CO₂ emissions based on fuel gas carbon content
 - Equations based on carbon content and fuel consumption (volume or energy basis):
 - Equations for gaseous fuels:

$$CO_{2,p} = v_{fuel (gas),p} \times CC_{gas,p} \times 3.664 \times 0.001$$

$$CO_{2,p} = \frac{ENE_{fuel (gas),p} \times CC_{gas,p} \times 3.664 \times 0.001}{HHV}$$

Aggregate Facilities - CO₂ Emissions

- Method 7: CO₂ emissions based on fuel gas carbon content
 - Equation for liquid fuels:

$$CO_{2,p} = v_{fuel(liq),p} \times CC_{liq,p} \times 3.664$$

- Use with fuel volumes calculated by internal metering or third party metering or invoices

Aggregate Facilities – CH₄ and N₂O Emissions

- Methods separated by different types of emission factors:
 - Method 8 – Default emission factors for non-variable fuels
 - Method 9 – Default sector-based emission factor for variable fuels
 - Method 10 – Default equipment-based emission factors
- Equations:

$$CH_{4,p} \text{ or } N_2O_p = Fuel_p \times HHV \times EF_{ene}$$

$$CH_{4,p} \text{ or } N_2O_p = Fuel_p \times EF_{vol} \text{ or } EF_{ene}$$

- Use with fuel volumes calculated by Methods 1, 2 or 3, as appropriate.

Aggregate Facilities – CH₄ and N₂O Emissions

- Method selection criteria for variable fuels:
 - Apply one of sector-based or equipment-based emission factors within a COG
 - Apply same methods for each COG in the benchmark and compliance report
 - If equipment-based emission factors are selected, different equipment-based emission factors may be used between the benchmark and compliance report to reflect equipment present at the COG (i.e. use of NO_x controlled and uncontrolled emission factors).

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 (from a possible 15 total) 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.
 - Detailed information included in section 15.4 of the draft QM for comment.

Benchmark Unit Criteria and Assignment

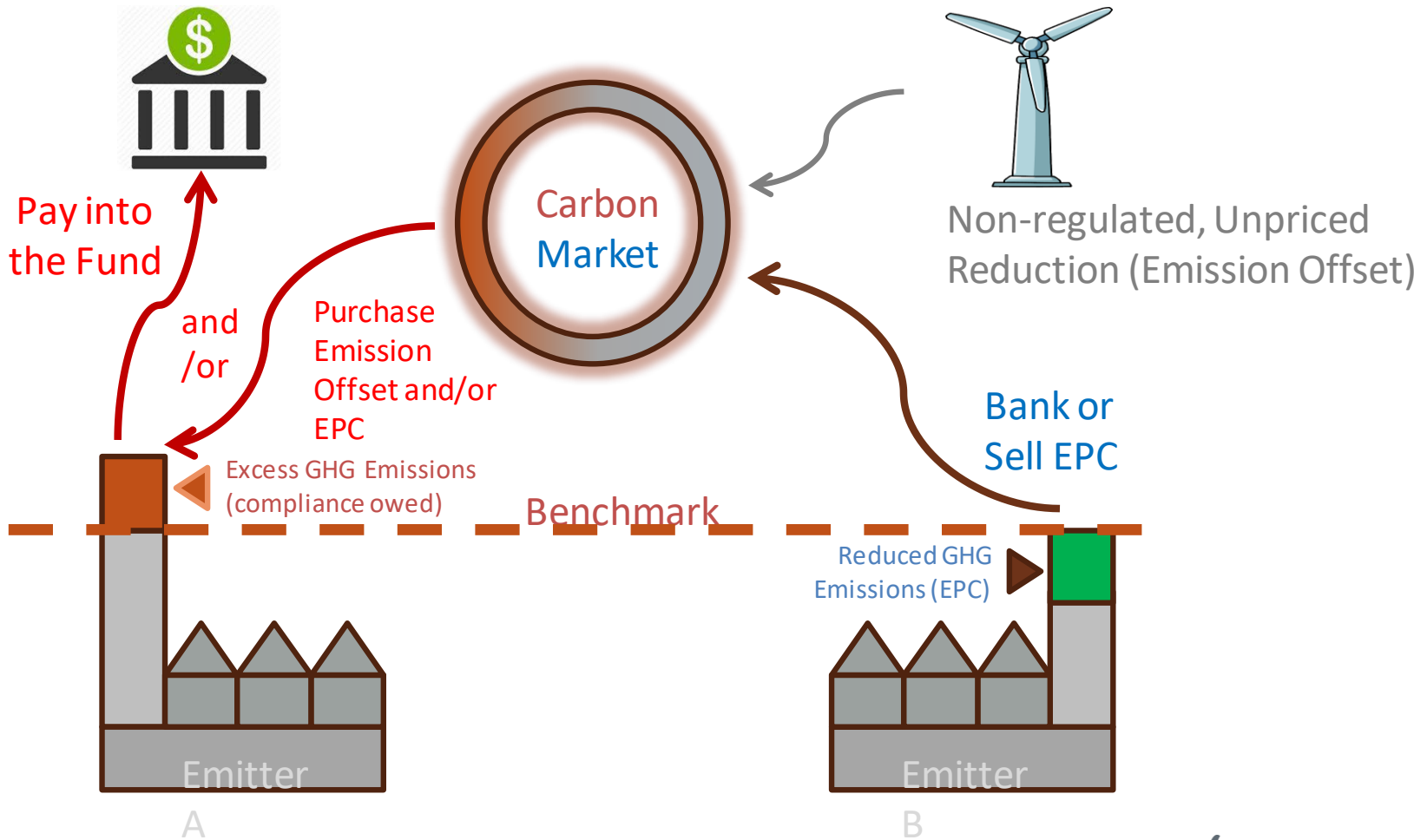
- A benchmark unit must meet the following criteria to be assigned to an aggregate facility:
 - A strong month-to-month correlation between the requested unit and the aggregate facility's emissions,
 - Minimizes variability of month-to-month emissions intensities over the course of a year,
 - Reasonably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

Questions?



Methods of Compliance





Benefits of Emission Offsets System

- Primary purpose: provide a cost-effective compliance option for facilities regulated by TIER.
- Additionally, the offset system:
 - Expands carbon price to non-TIER regulated facilities and industries,
 - Regulatory quality emission reductions,
 - Real and immediate GHG reductions in Alberta,
 - An incentive for early action (for e.g. methane abatement), and
 - Supports economic diversification and greening of economy.



Biological Methane

- Biogas
- Dairy cattle
- Age/Fed cattle
- Composting
- Aerobic landfill bioreactor
- Landfill gas capture



Renewables

- Biofuels
- Distributed renewables
- Biomass energy
- Solar
- Wind



Energy Efficiency

- Energy efficiency projects
- Waste heat recovery



Agricultural

- Agricultural N₂O reductions (NERP)



CO₂ Sequestration

- CO₂ capture and storage in deep saline aquifers
- Enhanced oil recovery*

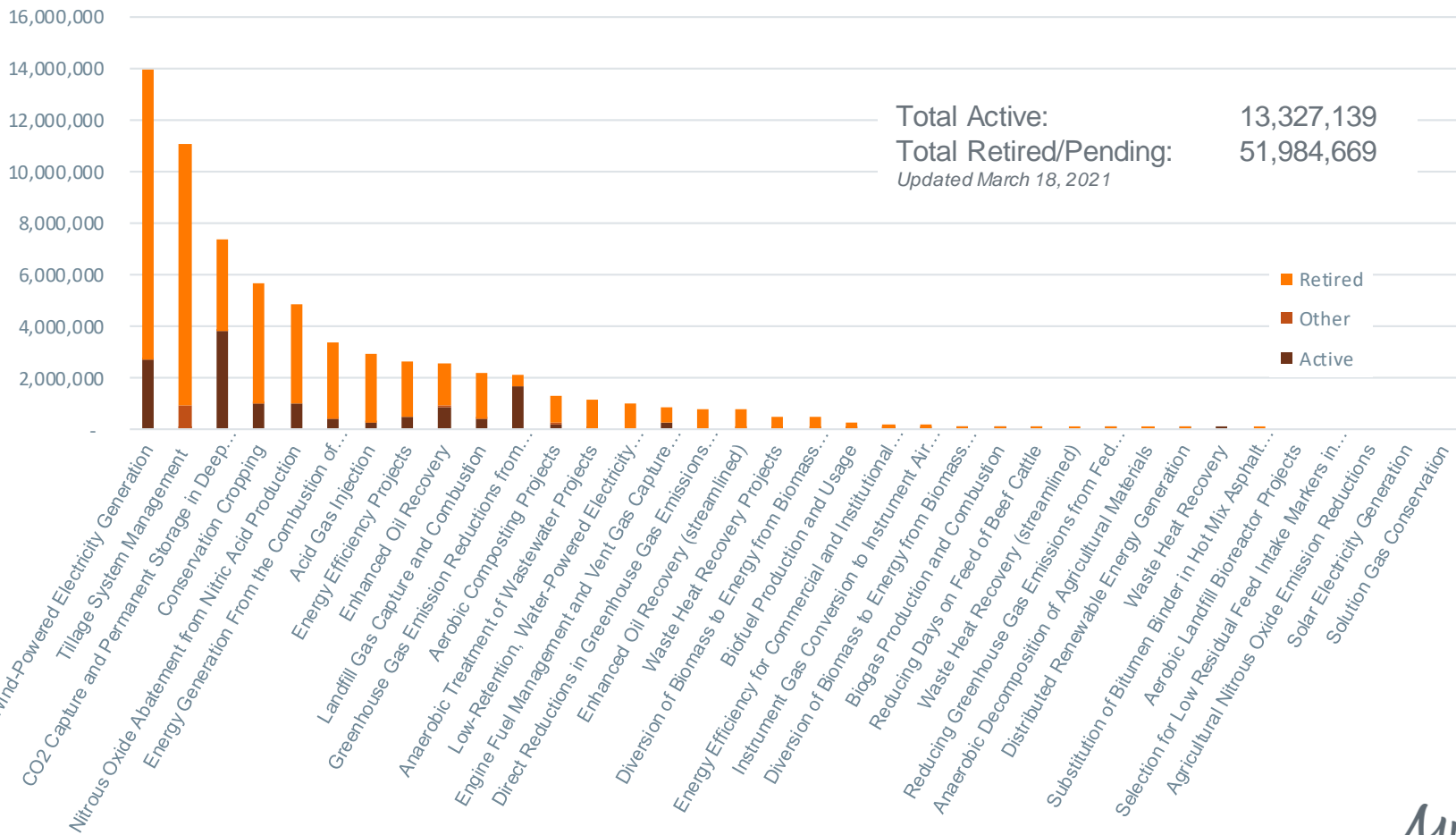


Oil and Gas Methane

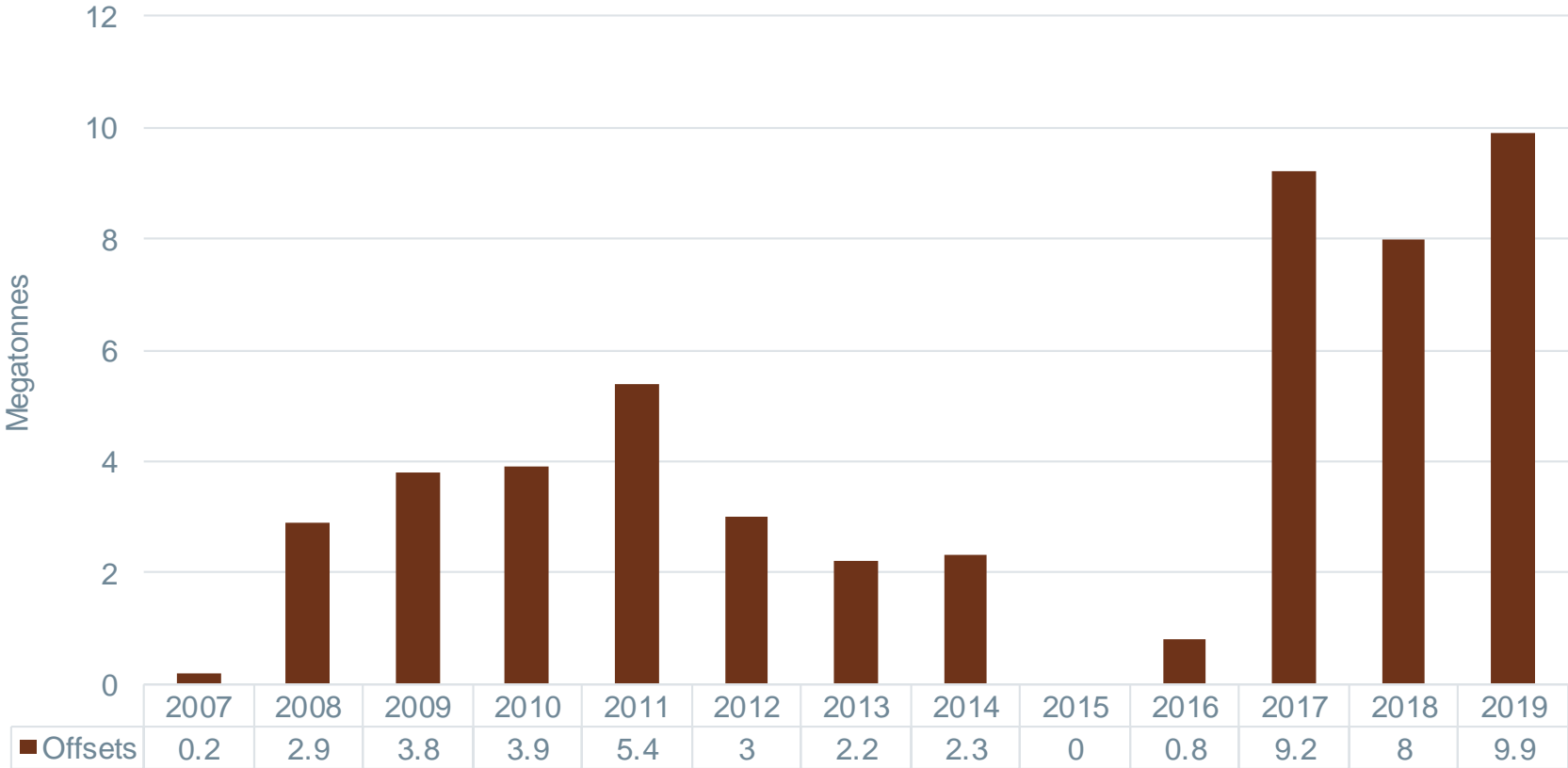
- Pneumatic devices
- Solution gas conservation*
- Engine fuel management and vent gas capture*

* Flagged Protocol

Active and Retired/Pending Retired Offsets up to March 18, 2021



Offsets Used for Compliance by Year



Protocols Under Development/Revision

- Under revision/development:
 - Improved Forest Management on Private Land,
 - Landfill Biocover,
 - Enhanced Oil Recovery, and
 - Solution Gas Conservation.

TEIR Compliance Requirements

Total Regulated Emissions - Aggregates

Total Regulated Emissions

$$TRE = ESFC + ECO_2A$$

- “TRE” is the quantity of total regulated emissions, expressed in CO₂e tonnes, for the aggregate facility for the year;
- “E_{SFC}” is the quantity of specified gas emissions, expressed in CO₂e tonnes; and
- “ECO₂A” is the quantity of carbon dioxide, expressed in tonnes, resulting from the combustion of solid, liquid or gaseous fuel from stationary fuel combustion devices at an aggregate facility for the primary purpose of providing useful heat, or energy, for industrial, commercial or institutional use, **that is exported from the aggregate facility during the year**

TEIR Compliance Requirements

Facility-specific benchmark for aggregates

Facility-specific benchmark

$$FSB = \frac{\sum_{c=1}^r \sum_{y=1}^z E_{SFC_{c,y}} + E_{CO2_{c-y}}}{\sum_{c=1}^r \sum_{y=1}^z P_{c,y}} \times (1 - RT)$$

c	is an individual conventional oil and gas facility that is part of an aggregate facility
y	is the benchmarking year for each individual facility
r	is the number of individual conventional oil and gas facility that is part of an aggregate facility
z	is the number of benchmarking years for each individual facility
$E_{SFC_{c,y}}$	is the stationary fuel combustion emissions of a facility c for benchmarking year y in CO ₂ e tonnes
$E_{CO2_{c-y}}$	is the net export CO ₂ of captured stationary fuel combustion emissions for each individual facility, c for each benchmarking year y in CO ₂ e tonnes
$P_{c,y}$	is the quantity of benchmark units of a facility c in benchmarking year y
RT	is the reduction target for aggregate facility, which is currently fixed at 10%

- The FSB is the average emissions intensity of the benchmarked unit over the benchmark period (baseline) for an aggregate, less the 10% reduction target.

Net Emissions, Allowable Emissions, True-up Obligation

Net Emissions

$$NE = TRE - (EO + EPC + FC)$$

- EO is the quantity of emission offsets in tonnes CO₂e used for compliance in the year,
- EPC is the quantity of emission performance credits in tonnes CO₂e used for compliance in the year,
- FC is the quantity of fund credits in tonnes CO₂e used for compliance in the year,

Net Emissions, Allowable Emissions, True-up Obligation

Allowable emissions for aggregate facilities

$$AE = \sum_{i=1} (AR_{i-Y} \times P_i)$$

“AR_{i-Y}” is the allocation rate for year Y. The allocation rate for a product of a regulated facility for a year is the facility specific benchmark (historical baseline – 10%);

“i” is each product of the aggregate facility that has an allocation rate;

“P_i” is the production of each product i for the aggregate facility for the year.

True-up Obligation = Net emissions (NE) – allowable emissions (AE)

(2) The person responsible for an aggregate facility shall comply with the requirement that the net emissions for the aggregate facility for a year shall not exceed the allowable emissions for the aggregate facility for the year.

Contents of Compliance Submission Package

- Completed Aggregate Compliance Form (Excel workbook)
- Signed Statement of Certification (SoC)
- Verification Report, including
 - Signed Statement of Verification (SoV)
 - Signed Statement of Qualifications (SoQ)
 - Signed Conflict Of Interest Checklist (COI)
- Confidentiality request for specified parts of the submission (optional)

Making Compliance True-up Payments and Submissions

Compliance Submission

- Send to AEP.GHG@gov.ab.ca by June 30, 2021
- Payment by cheque
 - Submit a cheque payable to “Government of Alberta” along with the fund credit purchase form:

Government of Alberta
Finance and Administration Branch
Alberta Environment and Parks
6th floor, South Petroleum Plaza
9915 108 Street NW
Edmonton, Alberta
T5K 2G8

Compliance Submission

- Electronic payment
 - Submit payment by electronic fund transfer and provide the fund credit purchase form at least three business days in advance of the electronic funds transfer

Account Name	PA Technology Innovation & Emission
Bank Name	CIBC
Bank Address	10102 Jasper Avenue Edmonton
Institution Number	0010
Transit Number	00059
Account Number	92-74219
Ministry/Department	Alberta Environment and Parks, Finance and Administration Branch
E-mail	AEP.revenue@gov.ab.ca

- Receipt will be given

Using Credits for Compliance

EPCs/Emission Offsets

- Credits must be in a pending retirement state on the registry prior to submission
- Action on the registry should be planned up to 10 business days in advance
- EPCs must be retired to the facility that are using them to true-up
 - If you are new to TIER and want to use EPCs for compliance create account and facility on registry

Specified Gas Reporting Regulation

Specified Gas Reporting Regulation

- Alberta's mandatory GHG reporting program for facilities emitting over 10,000 tonnes of CO₂ equivalent per year
 - This threshold does
- Builds on voluntary reporting by most Alberta emitters since the mid-1990's
- This regulation and the associated standard were passed in 2003
- One reporting window with Environment and Climate Change Canada (ECCC) GHG Reporting Program
- Emissions reporting data is used to inform policy development and analysis, and support federal national inventory reporting (NIR)
- Annual reporting deadline is June 1
- The Specified Gas Reporting Standard will be updated

Specified Gas Reporting Regulation – 2020 Updates


- Mandatory quantification methodologies:
 - Facilities regulated in TIER must use the Alberta Greenhouse Gas Quantification Methodologies (AQM)
 - Facilities not regulated in TIER must use either the AQM or the Quantification Methodologies for the Carbon Competitiveness Incentive Regulation and the Specified Gas Reporting Regulation
 - Tier 1 methodologies in those documents are the minimum requirement for SGRR reporting, and are aligned with ECCC minimum requirements.
 - Equation numbers must be reported in SWIM, and guidance will be provided for the small number of cases where AQM equation numbers do not align with the drop-down options in SWIM
- Production reporting requirements were eliminated for products that compete with products in TIER.

Compliance Reporting Form



(Video walkthrough)

Policy Updates and Ongoing Implementation



Policy and Implementation Updates

Baseline Year Approach for Benchmarking

- AEP currently evaluating the baseline/benchmarking year approach for aggregates for the 2021 compliance year-onwards.
- Key considerations
 - Representative
 - 2020 anomalies
 - Administrative effort
- Final decision and communication to stakeholders anticipated by end of spring 2021.

High-performance benchmarks

- AEP will be evaluating the option to implement HPBs for aggregate facilities in 2021.
- 2020 compliance reporting data will be key input into the process.
- Earliest possible implementation: available for 2021 compliance year.

Key Dates and Deadlines

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Review

Key Dates and Deadlines

June 30, 2021

- Compliance reporting for 2020 aggregates

September 1, 2021

- Benchmark application for 2021

December 1, 2021

- Adding a facility to an existing aggregate for 2021
- Removing a facility from an existing aggregate effective January 2022
- Application to revoke aggregate designation for 2022
- Application for new aggregate designation for 2022

Final Question Period

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