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# Compliance Year 2022 Large Emitter / Opt-in Compliance Workshop

Technology Innovation and Emissions Reduction  
Regulation (TIER)

Climate Regulation and Carbon Markets  
Alberta Environment and Parks  
February 23, 2023



# Agenda





## 2022 Compliance Requirements

(9:00 am – 11:00 am)

-  Introductions and Organization
-  Background and Regulatory Overview
  -  Industrial Greenhouse Gas Regulation
  -  Deadlines and Updates
  -  Overview of Standards
-  Compliance 2022
  -  Requirements and Improvements
-  Other Compliance Items
-  Specified Gas Reporting Regulation

## Alberta Emission Offset System

(11:10 am – 12:00 pm)

-  Updated Offset Statistics
-  Offset System Updates
-  Protocol Updates
-  Registry Updates

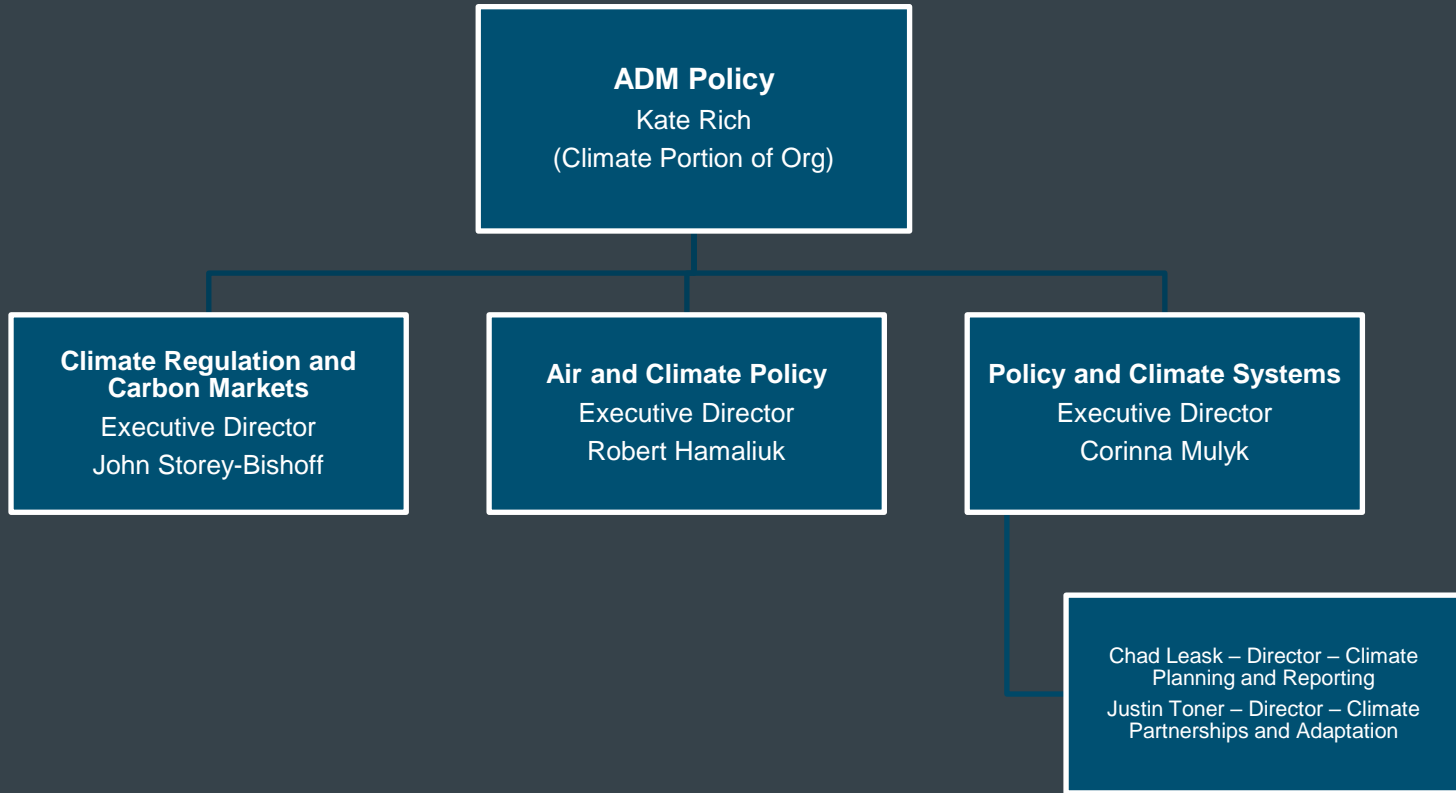
# Introduction and Organization

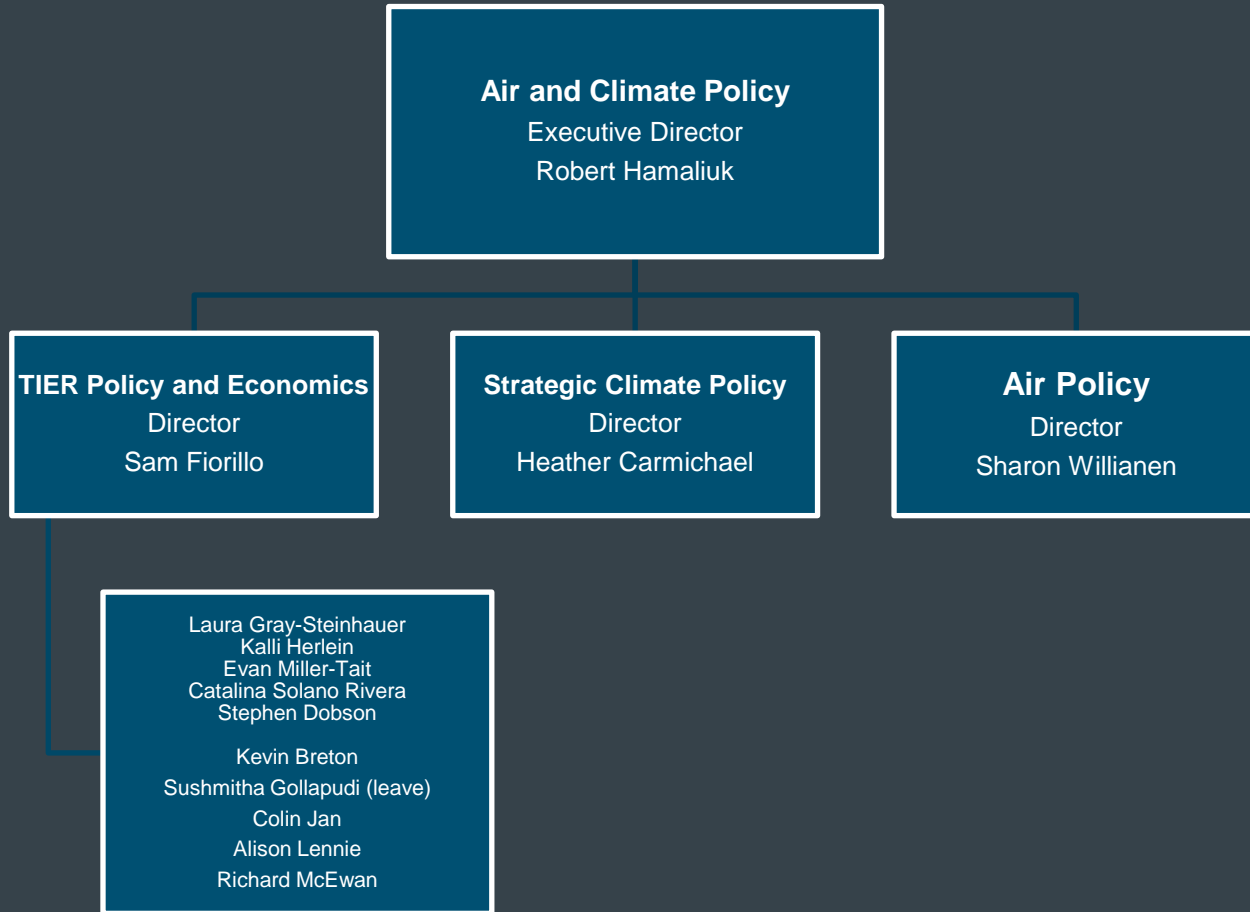
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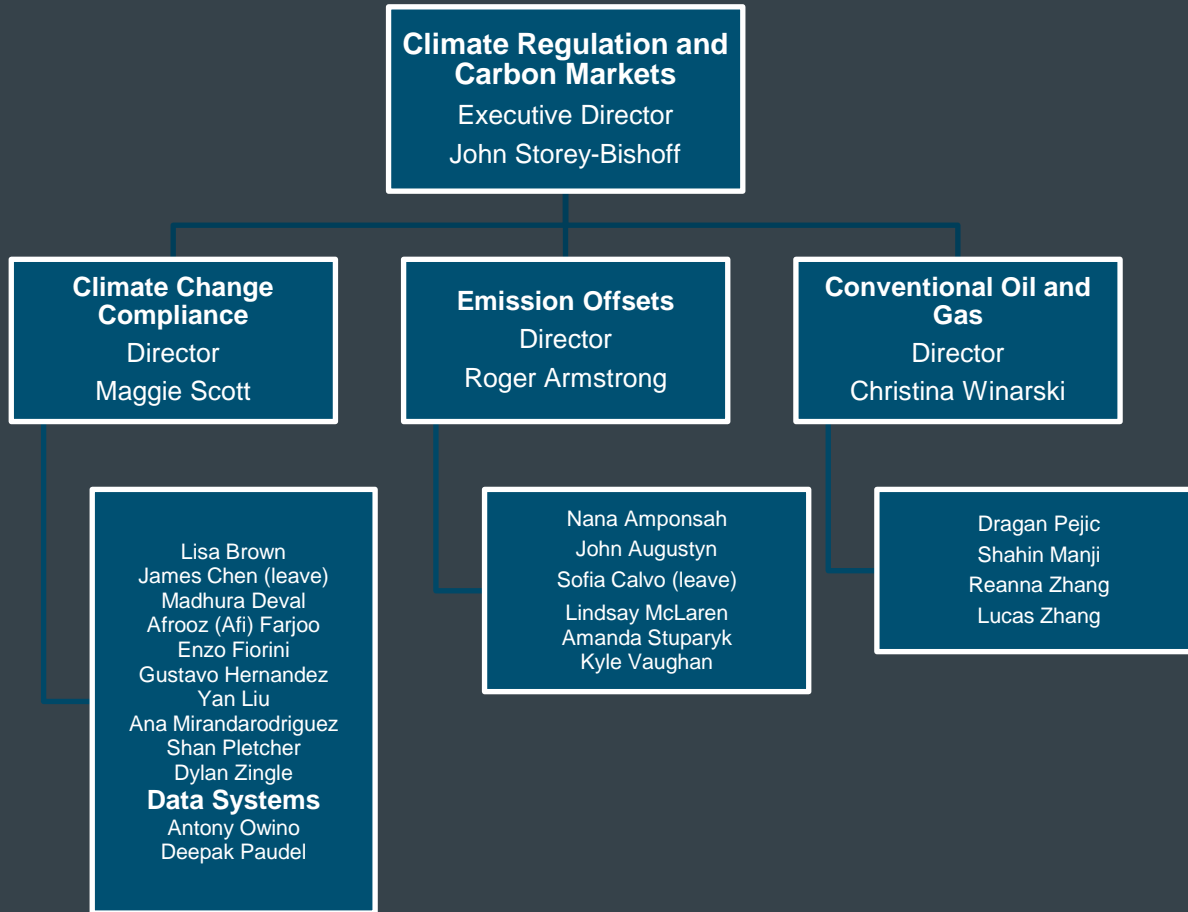
## Industrial Climate Policy and Regulation

# Introduction – Presenters

- John Storey-Bishoff, Executive Director, Climate Regulation & Carbon Markets
- Climate Change Compliance Team:
  - Maggie Scott, Director, Climate Change Compliance
  - Lisa Brown, Climate Change Engineer
- Emission Offset Team:
  - Roger Armstrong, Director, Emission Offsets
  - Lindsay McLaren, Emission Offset Policy Specialist







# Background and Regulatory Overview

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## Industrial GHG Regulation



# Regulatory Background

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

# Overview of TIER

- Technology Innovation and Emissions Reduction Regulation (TIER) (2020 – present)
  - TIER implemented on January 1, 2020, amended regulation January 1, 2023
  - Regulated facilities:
    - Large emitters with annual emissions above 100,000 tonnes of carbon dioxide equivalent in 2016 or subsequent; or
    - Voluntarily entered the regulation (including aggregate facilities and opted-in facilities)
  - <https://www.alberta.ca/technology-innovation-and-emissions-reduction-regulation.aspx>
  - TIER is a recognized provincial program under the *Greenhouse Gas Pollution Pricing Act* for 2020 to 2030 (review at 2026)

# Overview of TIER (con't)

- Facilities must comply with the least stringent of:
  - High Performance Benchmark (HPB)
    - In regulation and can be set or updated through Ministerial Order
    - No tightening rate
  - Facility-Specific Benchmark (FSB)
    - 90% of historical emissions intensity in 2020, with 1% annual tightening as in Benchmark Standard
    - Ramp in for new facilities
- Regulated Emissions
  - Large emitters and opted in facilities are regulated for all direct emissions with accounting for imported heat, hydrogen and electricity
  - Direct emissions – do not include biomass CO<sub>2</sub> nor federally levied fuels where exemption certificate is in place, do include CO<sub>2</sub> sent off site



New tightening schedule takes effect for **2023** compliance year.

# Background and Regulatory Overview

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## Deadlines and Updates

# Upcoming Key Dates from TIER

Report	Deadline	Compliance Year
Forecasting Report update	March 15, 2023	2022 (previous yr)
Cost Containment Application	March 31, 2023	2022
Compliance Report and True Up	June 30, 2023	2022
Facility Specific Benchmark Application	September 1, 2023	2023
Opted-in Facility Application / Removal	September 1, 2023	2024
Forecasting Report	November 30, 2023	2024 (future yr)

# Regulated Products

## Agroindustry

- Biodiesel
- Canola oil – Crude
- Canola Oil – Refined
- Flour
- Gluten
- Malt
- Vegetable Oil – Refined

## Chemicals

- Carbon Black
- Ethylene Glycol
- High Value Chemicals
- Hydrogen
- Hydrogen Peroxide
- Industrial Heat
- Iso-octane
- Linear Alpha Olefins
- Methanol
- Natural Gas Liquids
- Pentane
- Polyethylene
- Styrene

## Coal Mines

- Coal - Bituminous
- Coal - Sub-bituminous

## Conventional Oil and Gas

- Crude Oil – Conventional

## Distilling

- Ethyl Alcohol

## Fertilizer

- Ammonia
- Ammonium Nitrate
- Ammonium Sulphate
- Urea

## Food Processing

- Potato Products
- Fresh and Frozen Beef and Veal
- Sugar – Liquid
- Sugar – Refined

## Forest Products

- Lumber
- Lumber – Laminated Veneer
- Lumber – Panels
- Oriented Strand Board
- Paper Newsprint
- Plywood
- Pulp – Bleached Kraft

## Landfill

- Landfill Methane

## Manufacturing

- Fibreglass
- Wallboard

## Metals

- Cobalt
- Nickel

## Mineral

- Cement
- Lime Magnesium Oxide
- Sand – Frac or Finished
- Sand - Mined

## Natural Gas Processing

- Sulphur
- Cavern Storage
- Natural Gas
- Natural Gas Processing

## Oil Sands

- Bitumen – Oil Sands In Situ
- Bitumen – Oil Sands Mining

## Pipeline

- Natural Gas Throughput

## Power Plant

- Electricity

## Refining

- Asphalt
- Calcined Coke
- Refined Petroleum Products

## Upgrading

- Crude Oil - Synthetic

# High Performance Benchmarks



HPBs tighten annually starting in **2023**.

Products with High Performance Benchmarks	Unit	Product Description
Ammonia	Tonnes	Specified at least 99% of ammonia by mass
Ammonium Nitrate	Tonnes	Specified at least 99% of ammonium nitrate by mass
Bituminous Coal	Tonnes	Clean Coal as per facility sales specification
Cement	Tonnes	Cement and additives without specification
Crude Canola Oil	Tonnes	Oil and solid residue produced from the low erucic acid oil-bearing seeds of <i>Brassica</i> species
Electricity	Megawatt hours (MWh)	AESO requirements for electricity export to grid or to another facility
Ethyl Alcohol	Litres absolute alcohol	Un-denatured food grade alcohol which is intended for human ingestion
Ethylene Glycol	Tonnes	Per regulation
Hardwood Kraft Pulp	Air Dried Metric tonnes (ADMt)	Air Dry Metric Tonnes – 10% moisture by mass of hardwood pulp
High Value Chemicals (HVC)	Tonnes	Per regulation
Hydrogen	Tonnes	Mass of hydrogen excluding impurities.
Industrial Heat	Gigajoules (GJ)	Heat exported to a third party per regulation.
Oil Sands In Situ Oil Bitumen	Cubic meter of bitumen	As per AER ST53
Oil Sands Mining Bitumen	Cubic meter of bitumen	As per AER ST39
Softwood Kraft Pulp	Air Dried Metric tonnes (ADMt)	Air Dry Metric Tonnes – 10% moisture by mass of softwood pulp
Sub-bituminous Coal	Tonnes	Coal from a mine located in the Plains Region
Natural Gas	Alberta Gas Processing Index	Benchmarking based on a modular approach for different processes.
Granular Urea	Tonnes	White solid nitrogen-based fertilizer having the molecular formula $\text{CO}(\text{NH}_2)_2$
Upgrading	Upgrading Alberta complexity weighted barrel	Standardized volumetric production of upgraded bitumen

# Department Status Updates

- Reverifications 2021 Compliance Submissions are underway
- Facility Specific Benchmarks for 2022 are issued for most facilities
  - 2022 FSB applications are being reviewed
  - Rolling benchmarks for new facilities
- Annual compliance reviews
  - Staff working through 2019, 2020, 2021



# Background and Regulatory Overview

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## Overview of Standards

# TIER 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
- Alberta Greenhouse Gas Quantification Methodologies (AQM)
  - Provides mandatory quantification methodologies for regulated facilities
  - Is made mandatory through standards

# Benchmark Standard

- Opted-in facility entry
- Aggregate facility entry
- Benchmark setting methodologies
  - High performance benchmark
  - Facility specific benchmark
- Benchmark setting treatment of:
  - Indirect emissions
  - Cogeneration
  - Self generation of electricity
  - Refining/Upgrading
- Cost containment program

**Standard for developing benchmarks**

Technology Innovation and Emissions Reduction Regulation  
Version 2.1

 Version 2.2 takes effect for **2023** compliance onwards

*Alberta*

Classification: Public

# Compliance Standard

- Facility requirements for compliance reporting
- Facility requirements for forecasting
- Provides minimum level assignment for quantification methodologies
  - Version 3.3 adds flaring for 2022 onwards

## Standard for completing greenhouse gas compliance and forecasting reports

Technology Innovation and Emissions Reduction Regulation  
Version 3.3



Updates for 2023 onwards included in Version 3.3, including new GWPs, do not apply for 2022.

Alberta

Classification: Public

# Verification Standard

- Requirements for third party assurance providers (verifiers, validators) and auditors
- Covers compliance reports, benchmark applications, cost containment applications, data submissions, emission offset project reports
- **Version 5.2 is effective January 1, 2023**

## Standard for validation, verification, and audit

Technology Innovation and Emissions Reduction Regulation  
Version 5.2

Classification: Public

Alberta

# Updates to Verification Standard

- Part 1 Section 3(1)
  - Lead verifiers and peer reviewers - minimum of 3 years of experience in verifying emission offsets or providing verifications
- Part 1 Section 3(1) (v) (vi)
  - lead verifiers, peer reviewers, and designated signing authorities must successfully completed the verification training
- Part 1 Section 3(1)(h.1)
  - Virtual site visits may be conducted automatically if certain conditions are met
    - Aggregate facilities
    - Some opted-in facilities

# Updates to Verification Standard

- Updated Materiality Assessment – Part 1 Section 5(e)(v)
  - any individual identified quantifiable error, omission, or misstatement exceeds:
    - 5 percent for a regulated facility with total regulated emissions less than 500,000 tonnes of CO<sub>2</sub>e and allowable emissions less than 500,000 tonnes of CO<sub>2</sub>e for the reporting period being verified;
    - 2 percent for a regulated facility with total regulated emissions equal to or greater than 500,000 tonnes of CO<sub>2</sub>e or allowable emissions is equal to or greater than 500,000 tonnes of CO<sub>2</sub>e for the reporting period being verified.

# Verification Training Requirements

## Verification Training Modules:

- Module 1 Course Overview and TIER Regulation Background
- Module 2 Overview of TIER Regulation and Standards
- Module 3 TIER Verification Requirements
- Module 4 Alberta Greenhouse Gas Quantification Methodologies
- Module 5 Verification of Benchmark Applications
- Module 6 Verification of Compliance Reports
- Module 7 Emission Offset Project Developers



# Verification Training Requirements

- Verification of Compliance Report (by June 30, 2023)
  - Completion of Modules 1 and 2 (no graded quiz)
  - Completion of Modules 3 and 6 (with graded quiz)
  - Voluntary completion of Module 4
- Verification of Emission Offset Project Report (after June 30, 2023)
  - Completion of Modules 1 and 2 (no graded quiz)
  - Completion of Modules 3 and 7 (with graded quiz)
- Designated Signing Authorities are only required to take Modules 1 and 2

# Verification Training Platform

- Register for verification training modules using form
- Access to training platform will be provided
- 30 days to complete the training
- Submit another request if training expires or course incomplete
- Registration form will be posted

# Quantification Methodologies

- 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
- Aligned with federal greenhouse gas reporting where appropriate

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## Alberta greenhouse gas quantification methodologies

Technology innovation and emissions reduction regulation

Version 2.2

Alberta

# Mandatory Quantification Methodologies

- Mandatory Quantification Methodologies for 2022
  - Chapter 1 – Stationary Fuel Combustion
  - **Chapter 2 – Flaring**
  - 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

# Mandatory Quantification Methodologies

- Mandatory Quantification Methodologies for 2022
  - Appendix A – References
  - Appendix B – Fuel Properties
  - Appendix C – General Calculation Instructions
  - Appendix D – Conversion Factors
  - Appendix E – Additional Information for the Alberta Gas Processing Index
- Facilities submit deviation requests to the department to propose alternative method if unable to adhere to mandatory method
  - Department will provide a time limited approval letter to facility if deviation request is accepted.

# Compliance 2022

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## Requirements and Improvements

# Key Take-Aways

- Person responsible to submit verified compliance report by ***June 30, 2023*** for the 2022 compliance year
- Positive verification opinion required
  - Any material errors must be resolved before submission
- Required true-up (credits retired or fund payment made) must be complete *before* submitting your compliance report
- Fund Credit price is **\$50** per tCO<sub>2</sub>e for 2022
  - [Ministerial Order 62/2022 - Environment and Protected Areas](#)



Shows Fund Credit amount for 2022 to 2030.

# Emissions Completeness

- “Direct Emissions”: all specified gases released from sources located at a facility
  - *not including* biomass CO<sub>2</sub> emissions
  - *not including* fuel for which a fuel charge has been paid under the *Greenhouse Gas Pollution Pricing Act* (Canada) with exemption certificate covering the period
- All direct emissions within facility boundary must be reported
  - Emissions from contractors, drilling rigs, etc.
  - Negligible emissions
- If the source meets the definition for “negligible emissions”, can use alternative quantification method
  - defined in Standard for completing greenhouse gas compliance reports
  - all “negligible emissions” count in the Direct Emissions



# Usage of Credits

- TIER Requirements
  - Maximum credit usage for 2022: 60% of tonnes owed
  - 2017 or new vintage credits may be used
  - Reminder
    - **2016** and older credits have *expired*
- Credits must be
  - held by person responsible
  - in pending retired status
  - in the account of the regulated facility (EPCs only)
  - Correctly tabulated on compliance report
    - Separate tabs for EPCs and Offsets
    - Serial ranges must be correct and match reported totals
  - Ensure that there is no overlap with credits already used

# Quantification Methodology Document

- QMD an essential reference for verification and department internal reviews
  - Still seeing QMDs missing information (examples: equations, emission factors, sample calculations, negligible emissions method, justifications for chosen methods and emission factors)
- QMD must be kept up-to-date
  - Update quantification methodologies as each becomes mandatory
  - Must follow format in Compliance Standard
- Do not need value updates, but should have sample calculations
  - Sample calculation workbooks must supplement use of emission management software, and provided to verifier
- If deviation request(s) granted by department, include in QMD

# Deviation Requests

- Where unable to fully implement the prescribed quantification requirement, a deviation request can be made
  - cannot grant if deviation is based on preference for alternative method
- If a missing data procedure can be used according to Chap 17 AQM, a deviation request is not needed.
- If mandatory quantification method is not followed and deviation not in place, verification finding should result
- Deviations are limited
  - granted for one year
  - review approval letter carefully, often conditions included
  - request should include how facility will comply with mandatory requirements in subsequent reporting
- Department tracks deviations to inform review of quantification requirements

# Confidentiality

- If requesting confidentiality on reporting form, must include letter with submission
- Letter should clearly justify how requested data meets criteria under the regulation
- Unjustified requests are rejected
  - review decision letter prior to subsequent requests
  - if request rejected, do not request in future submissions unless conditions change that warrants confidentiality

# Contents of Compliance Submission Package

- Completed Compliance Report 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)
- Fund Credit Purchase Form
- EPC Request Form
- Quantification Methodology Document
- Area Fugitives Report (as required)
- Emissions reduction plan report for facilities with cost containment designation
- Confidentiality request for specified parts of the submission (optional)

# Compliance Report Submission

- Send to [AEP.GHG@gov.ab.ca](mailto:AEP.GHG@gov.ab.ca) by June 30, 2023
- 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 Protected Areas  
6th floor, South Petroleum Plaza  
9915 108 Street NW  
Edmonton, Alberta  
T5K 2G8

# Compliance Report Submission

- Electronic payment
  - Submit payment by electronic fund transfer and **provide the fund credit purchase form**. Note that it takes 3 or more days to process.

Account Name	PA Technology Innovation & Emission
Bank Name	CIBC
SWIFT Code	CIBCCATT
Bank Address	10102 Jasper Avenue Edmonton
Institution Number	0010
Transit Number	00059
Account Number	92-74219
Ministry/Department	Alberta Environment and Protected Areas, Finance and Administration Branch
E-mail	<a href="mailto:AEP.revenue@gov.ab.ca">AEP.revenue@gov.ab.ca</a>

- Receipt will be provided

# Using Credits for True-Up Obligation

## EPCs/Emission Offsets

- Credits must be in a pending retirement state on the [registry](#) prior to submission
- Action on the registry should be submitted 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



# Compliance Report Form Review

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Overview video on TIER webpage  
under Compliance Reporting  
[https://youtu.be/jujIEP\\_XMqU](https://youtu.be/jujIEP_XMqU)

# Signing Compliance Forms

Additional guidance has been created on using electronic signatures

- [Guide to Signing Technology Innovation and Emissions Reduction Regulation Forms \(alberta.ca\)](#)

# Offences under TIER Regulation

- Offences under TIER are prescribed in Section 33 including (not limited to):
  - Contravenes section 12 – net emissions must not exceed allowable emissions
  - Contravenes section 7(4) (5) – submit a benchmark application in accordance with the Standard for Developing Benchmarks
  - Facility submits a compliance report that is not in compliance per Section 15(4)
  - Verifier performs the functions of a third party assurance provider but does not have the qualifications
- Possible compliance action:
  - Issuance of compliance order or warning letter
  - Issuance of administrative penalty

# Late Submissions

- The Department evaluating options to execute automatic compliance action for late submissions
  - Compliance orders
  - Administrative penalties
- Ensure the full compliance package and true-up obligation is met by deadline
  - Fund Credit Purchase Form essential for processing payment

# Other Compliance Items

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# Correction of Material and Immaterial Findings

- Material errors –
  - Require corrections retroactively and/or current year
- Immaterial errors –
  - Require “move-forward” corrective action

# EPC Issuance

- Department uses a risk-based approach to issues EPCs
  - First wave within six months of compliance deadline
- Will issue EPCs before June 1 for renewable electricity facilities that submit compliance package by March 31
  - RECs must be retired in WREGIS
- Ensure facility is registered on Alberta Carbon Registries

# Facility Specific Benchmarks

- 2022 FSBs will be issued
- Reminder deadline is September 1 for 2023 FSBs
  - If facility does not have an FSB, application must be made by deadline
  - Refer to updated benchmark methodologies in benchmark standard



# Cost Containment

- Application for 2022 designation due March 31, 2023
- Application form for 2023 compliance year onwards is under development

# Opt In



- Emissions threshold lowered to 2000 tCO<sub>2</sub>e for emissions-intensive-trade-exposed pathway
- Director discretion clause to consider applications after the deadline is for extenuating circumstances
  - Facility must submit evidence of why application was not submitted by deadline

# WREGIS REC Retirement

- New process to retire RECs in WREGIS system for electricity production claimed under TIER, for 2022 onwards
- Alberta Climate Compliance administers annual compliance program
  - Organizations invited to participate in program, instructions will be emailed separately
  - RECs from opted in generators must be retired to program by compliance deadline
- If proof of REC retirement for 2021 and prior required, must submit report or ask WREGIS to send to Climate Compliance

# Specified Gas Reporting Regulation (SGRR)

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# SGRR Overview

- Alberta's mandatory Greenhouse Gases (GHG) reporting program for facilities emitting over 10,000 tonnes of CO<sub>2</sub> equivalent per year
- One reporting window with Environment and Climate Change Canada (ECCC) GHG Reporting Program
- Annual reporting deadline is ***June 1***

# SGRR – 2022 Updates

- Global Warming Potentials updated in alignment with Greenhouse Gas Reporting Program
  - Misalignment for 2022 calendar year with TIER reporting
- The Specified Gas Reporting Standard will be updated and posted

# Questions?

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Contact:  
[AEP.GHG@gov.ab.ca](mailto:AEP.GHG@gov.ab.ca)



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# TIER Offset System Amendments

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## Overview of system amendments

Environment and Protected Areas

February 23, 2023

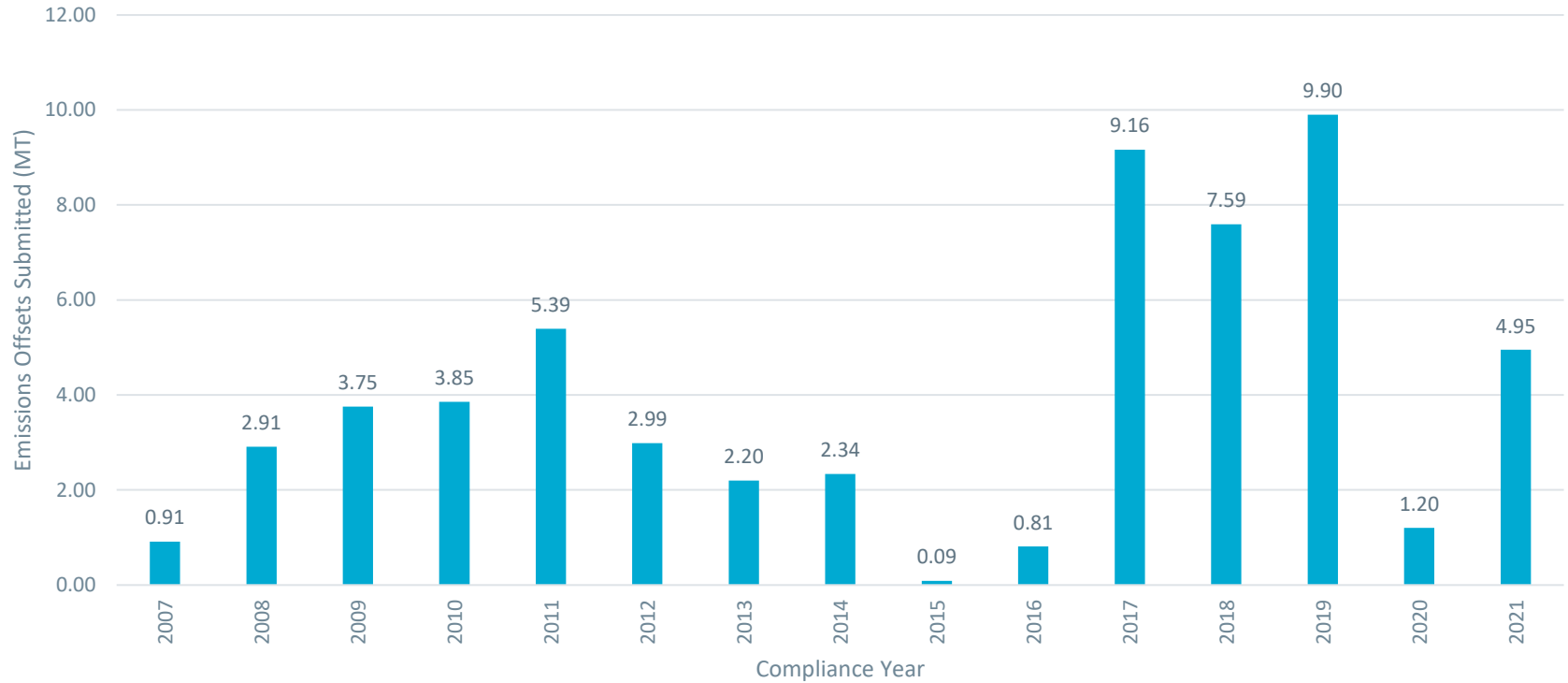


# Agenda

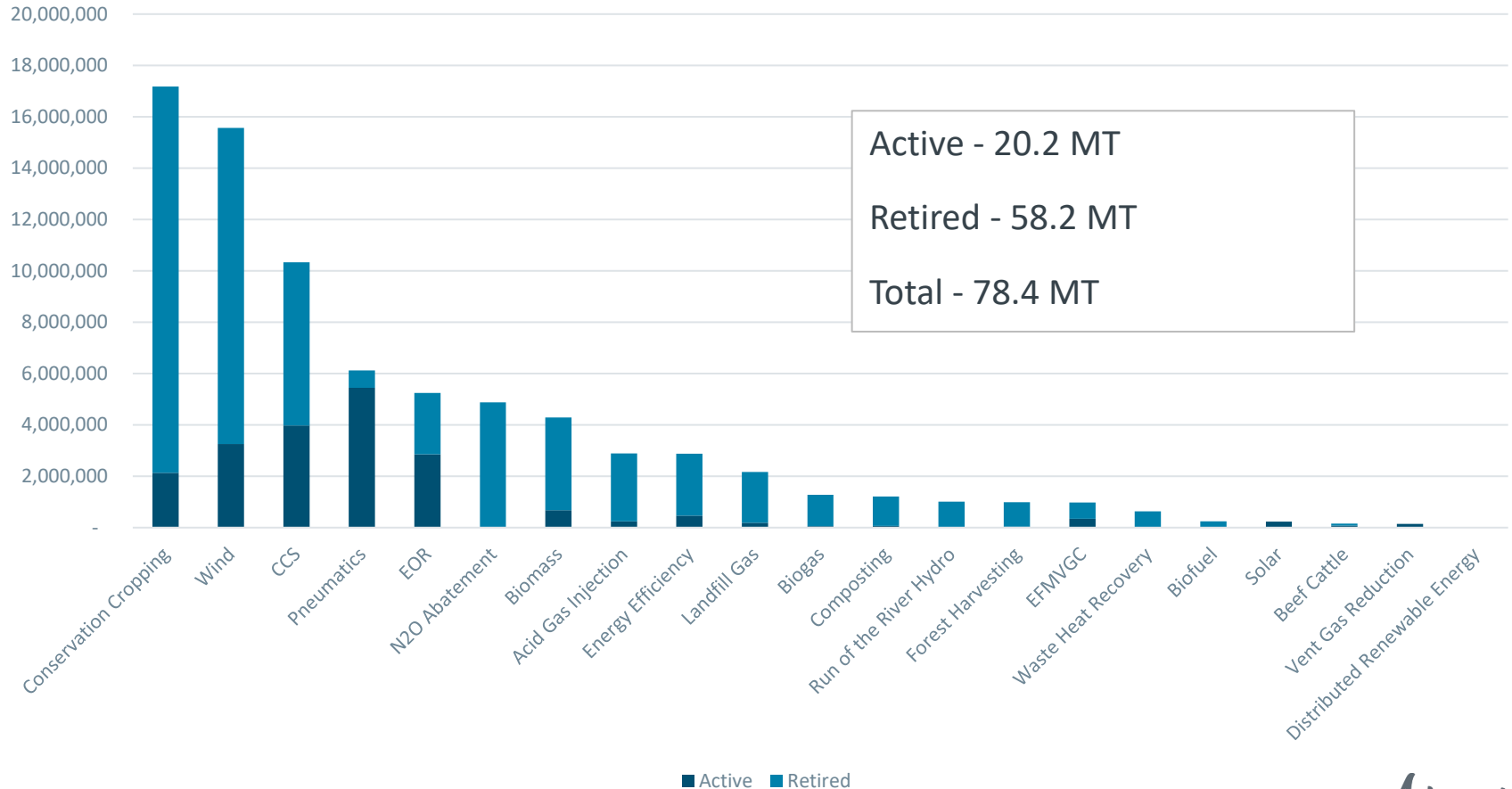
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- Overview & Context
- TIER Regulation amendments and updates to related Standards:
  - Updated Offset Stats
  - Offset System Updates
  - Protocol Updates
  - Registry Updates
- Questions and Discussion

## Emissions Offsets Submitted for Compliance by Year



## Offsets Generated by Protocol current to February 10, 2023



# Offset System Updates

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# General Updates

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Project standard for emission offset project developers v3.1 effective January 1, 2023:

- Greenhouse Gas Assertion changes to Greenhouse Gas Statement.
- Removed section on Expansions.
- Emission offset expiry:
  - 2023 vintage forward 6 year expiry from year generated.
  - 2022 and prior was 9 year expiry from year generated.
- Erratas and Clarifications section added in Standard and on website.
- New requirement for non-aggregated projects to submit a project boundary file.
- New handbook v3.1, new verification standard v5.2.

# Offset Project Crediting Period

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- Previously crediting period was 8 years with a potential 5 year extension, or 10 years with director approval and no potential for extension.
- For projects initiated on or after January 1, 2023 the default crediting period is 10 consecutive years with a potential for a 5 year extension if the project is able to demonstrate financial need.
- Some project types may have other crediting periods as set out in a specific protocol (e.g. carbon capture and storage/enhanced oil recovery).

# Offset Project Reporting Period

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- Maximum 2 year reporting period for 2023+ vintage, required to submit report within 6 months.
- All reductions that occurred prior to 2023 must be reported on - no maximum reporting period, but following deadlines for submitting report:

Vintage Year	Pre-2022	2022	2023+
Reporting Period	No max length	No max length	2 years maximum
Report Due	December 1, 2023	December 1, 2024	Within 6 months after end of reporting period

\*the registry will reject all project reports submitted after these deadlines\*



# Subproject Transfers & Error Corrections

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## Subproject Transfers:

- Request a transfer by submitting an updated planning sheet.
  - Specific instructions set out in Part 2 of Project Standard.
- Subprojects transfers are subject to director approval.
- The transfer process does not apply to subprojects that have not serialized.
  - Subprojects must be removed and then added as a new subproject into different project.
- NERP projects may not transfer subprojects.

## Error correction to APPS:

- Subject to director approval project developers are responsible for the accuracy of their data.

# Global Warming Potentials (GWPs)

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- Global Warming Potentials (GWP) effective January 1, 2023:
  - Project developers can use the same GWP that is current when project is initiated.
  - Project developers may use an updated GWP, but if they choose to they must update all common emission factors, update baseline, update project plan, and use most current protocol.
  - More details in Standard for Greenhouse Gas Emission Offset Project Developers.

Species	Previous GWP	Revised GWP
CO <sub>2</sub>	1	1
CH <sub>4</sub>	25	28
N <sub>2</sub> O	295	265

# Electricity Grid Displacement Factor

	2022	2023	2024	2025	2026	2027	2028	2029	2030
Electricity Benchmark (tCO <sub>2</sub> e/MWh)	0.3700	0.3626	0.3552	0.3478	0.3404	0.3330	0.3256	0.3182	0.3108
EGDF (tCO <sub>2</sub> e/MWh)	0.53	0.52	0.4901	0.4602	0.4303	0.4005	0.3706	0.3407	Matches HPB onward

- Projects initiated in 2022 and 2023 have same grid factor for entire crediting period (unless the offset project plan update is triggered and/or new subprojects are added into an aggregate triggering update of grid factor for all of the project going forward).
- Projects initiated in 2024 forward will use the grid factor published for each year (i.e. each yearly emission reduction quantification will apply factor for that year)
- Grid factor will mirror the benchmark after 2030.

# Protocol Updates

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# Agricultural Nitrous Oxide Emission Reductions

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- Posted for public comment; comments due March 6, 2023.
- Aiming for new version of protocol to be posted and in effect for May 1, 2023 deadline for 2023 cropping year.
- Once finalized, the protocol is applied on a go-forward basis only.

# Pneumatics

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- Pneumatics protocol is being revised because of changes to Directive 060 affecting eligibility for some project types.
- Adjusting the baseline for some project types to low bleed to ensure legal additionality.
- Technical working group worked throughout 2022 and a draft protocol being worked on.

# CO<sub>2</sub> Capture and Permanent Storage

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- Protocol is under revision in 2023 to:
  - Incorporate amendments to TIER and the Standard where necessary.
  - Include potential updates to quantification of high performance benchmark.
  - Update language where necessary.
  - Identify other areas of refinement or improvement.

# Improved Forest Management – Private Lands



Technical Seed Document – Improved Forest Management on Private Lands has been submitted to the Department.

Activities include extending rotation age, reducing harvest intensity, improving forest growth rates and mitigating wildfire risk.

Targeted lands include Métis Settlements and private lands.



# Federal Output Based Pricing System

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- Alberta has a MOU with ECCC to enable use of Alberta emission offsets to be used as recognized units for compensation under the federal OBPS.
- The federal government has recognized the following protocols as acceptable for use in the OBPS:
  - Greenhouse Gas Emission Reductions from Pneumatic Devices
  - Aerobic Composting
  - Aerobic Landfill Bioreactors
  - GHG Reductions from Fed Cattle
  - Selection for Low Residual Feed Intake in Beef Cattle.
- Registry statuses have been added to reflect federal system
  - Pending Retire Federal OBPS.
  - Retired – Federal OBPS.

# Registry Updates

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# Alberta Carbon Registries Update

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- Updated registry reviews and processing to TIER and Project Standard version 3.1 updates effective January 1, 2023.
- Updated Offset Project Plan and Offset Project Report forms to be used for submissions 30 days after publication of forms.
- New and updated Statutory Declarations (Req'd for all registration claims) beginning March 1, 2023.
  - New for CCS/EOR project registrations.
  - Updated for all other project registrations.

# Alberta Carbon Registries Update

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- Working on updates to the emission offset platform for: crediting period, credit expiry, new credit statuses.
- New credit statuses only apply to CCS/EOR sequestration projects.
- Emission offset conversion to 'sequestration credit'
- 'Sequestration credit' further converted into 'capture recognition tonne' (applied to current year TRE under TIER).

# Alberta Carbon Registries Update

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- Registry will be enforcing the following updates:
  - Project Initiations will have a **30-day resubmission requirement** if the registry rejects a submission due to deficiencies detected in reviews.
  - If a project does not resubmit complete documentation in 30 days the offset start date and offset project plan must be updated to new submission date.

# Where to Learn More

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- Website will link to all relevant materials
  - [Alberta Emission Offset System | Alberta.ca.](#)
  - Subscribe to mailing list to stay up to date.
- Questions or concerns can be addressed to [aep.ghg@gov.ab.ca](mailto:aep.ghg@gov.ab.ca).

# Questions?

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Contact:  
[AEP.GHG@gov.ab.ca](mailto:AEP.GHG@gov.ab.ca)



# Thank You

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