

Specified Gas Emitters and Reporting 2016 Workshop

Alberta Climate Change Office
Edmonton, March 10 2017
Calgary, March 14, 2017

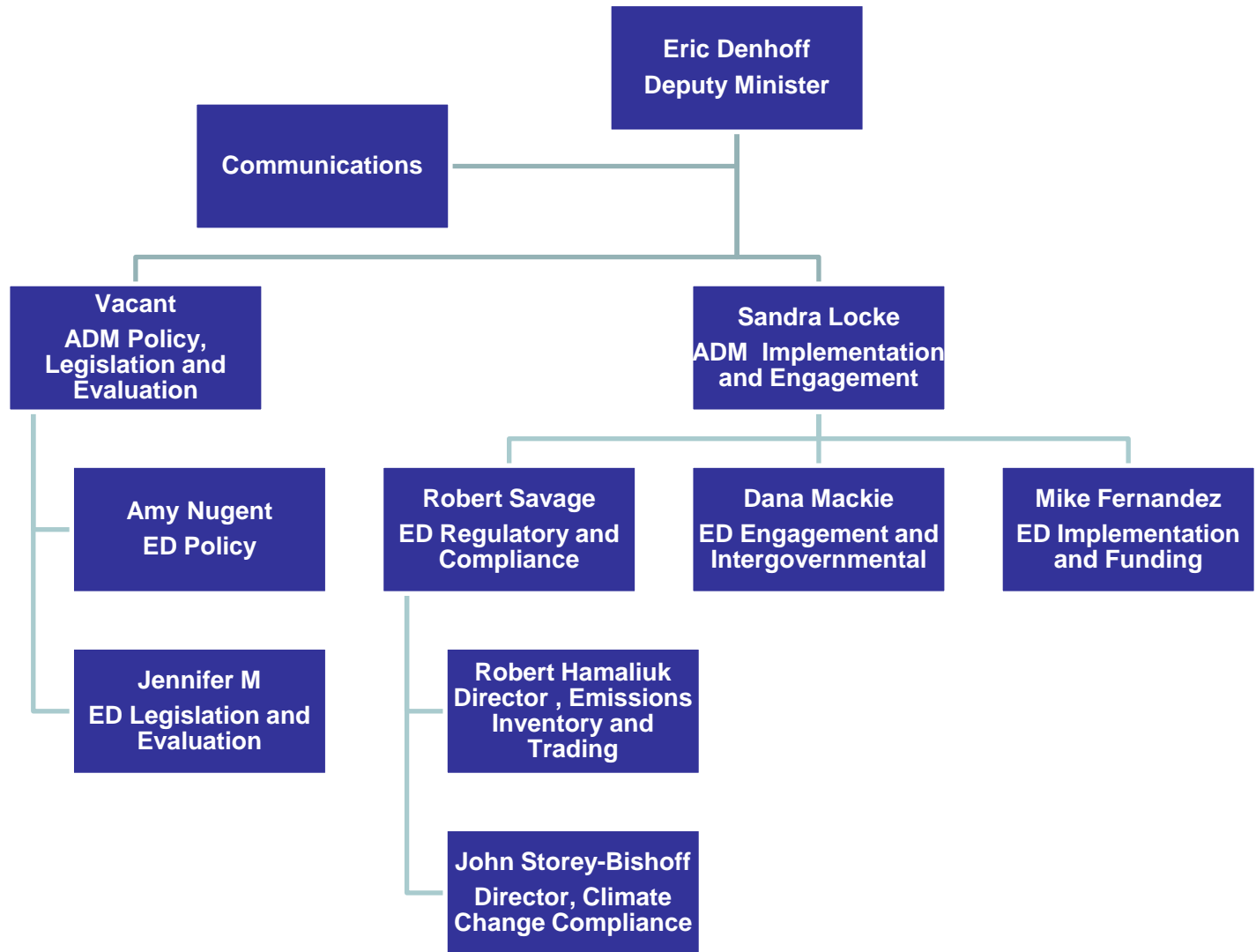
Purpose

- To introduce new staff and new org structure
- Compliance Education/Promotion
 - To inform regulated entities of requirements for the 2016 calendar
 - Offset system updates
- Lessons Learned
 - Summarize key findings from past audits
- Information Sharing:
 - Updates on Climate Leadership elements
 - Recap of engagement process for output based allocations

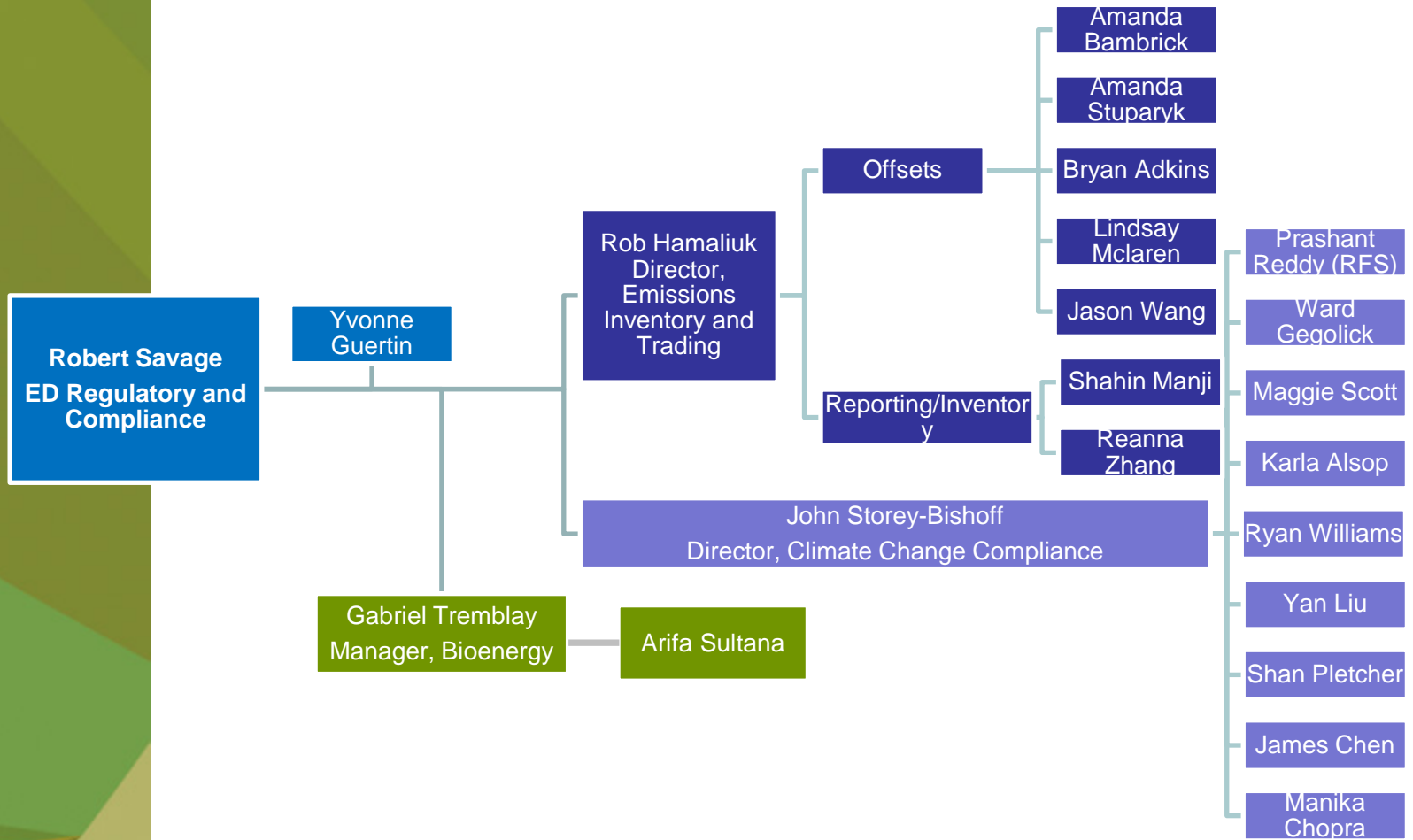
Agenda

Agenda Item	Approximate Time
Context (Overview of Provincial/National/International context)	9:30 to 10:15
Update on OBA Development Process	10:15 to 10:30
Break	10:30 to 10:45
Specified Gas Emitters Regulation	10:45 to 12:15
Lunch	12:15 to 12:45
Alberta Offset System	12:45 to 2:15
Break	2:15 to 2:30
Alberta Carbon Registry update (Offsets and EPCs)	2:30 to 3:00
Emission Reductions Alberta Update	3:00 to 3:30

Alberta Climate Change Office



Regulatory and Compliance Branch



Climate Leadership Plan Highlights

- 4 key areas the Alberta government is moving forward on:
- Phasing out emissions from coal-generated electricity and developing more renewable energy
 - Coal power emissions phase out by 2030
 - 30% of generation from renewables by 2030
 - Implementing a new carbon price on greenhouse gas pollution
 - Extends price to combustion of transportation and heating fuels
 - Industrial emitters transition to new output based allocation system
 - A legislated oil sands emission limit
 - 100 Mt CO₂e limit, with provision for cogen emissions and new upgrading
 - Employing a new methane emission reduction plan to reduce oil and gas methane emissions by 45% by 2025.

Climate Leadership Plan Priority Initiatives

Coal Emissions
Phase Out

Renewable
Energy

Carbon Pricing

Consumer
Rebates

Small Business
Tax Cuts

Energy
Efficiency

Micro-
generation

Carbon Fund
Management

Innovation and
Technology
Framework

Oil Sands
Emissions Limit

Output-Based
Allocations

Bioenergy

Methane

Municipal
Climate Change
Action Plan

Climate Leadership Plan- Engagement

- Key engagements completed, underway or planned in 2017 include:
 - Energy efficiency programs - Energy Efficiency Advisory Panel (completed)
 - Micro-generation Regulation (completed)
 - Output Based Allocation
 - Climate Change Innovation Task Force (completed)
 - Indigenous Engagement
 - Coal Affected Communities
 - Methane Technical Engagement
 - Oil Sands Advisory Group

Carbon Pricing in Alberta

Alberta employs carbon pricing in two ways:

- **Carbon Levy on heating and transport fuels**
 - January 2017, \$20/Tonne rising to \$30/tonne in 2018
 - All revenue collected will be **rebated to Albertans** and **reinvested in the economy** to help fund provincial efforts to reduce greenhouse gas emissions and diversify the provincial economy
- **Large Industrial Emitters – shift to Output Based Allocation**
 - New OBA system begins in 2018
 - Built of the experience of Specified Gas Emitters Regulation (2007)
 - Drive emissions reductions while protecting trade exposed industries
 - Includes large emissions and trade exposed industry: oil sands, electricity, refineries, petrochemicals, cement, mining, etc.

Carbon Levy Exemptions

- **SGER/Output Based Allocation**
- **Upstream oil and gas (until 2023)**
- **Marked gasoline and diesel**
 - Use by farmers for farming operations
- **Biofuels**
- **Inter-jurisdictional flights**
- **Indigenous use**
 - Eligible First Nations individuals and bands, when fuel is purchased on-reserve for personal or band use
- **Other exemptions**
 - Fuel sold for export
 - Fuels used in industrial processes without releasing GHG emissions.
 - Federal Government use

Some key Federal Initiatives underway

Advancing elements of the Pan Canadian Framework

- **Methane reductions in oil and gas**
 - Commitment to reduce methane gas emissions from oil and gas operations by 40-45% by 2025 from 2012 levels.
- **Clean fuel standard**
 - Reduction in GHG lifecycle of fuels to achieve 30 MT of annual reductions by 2030.
- **Investments in innovation and technology**
 - task force that will make recommendations on a Climate Change Innovation and Technology Framework.
- **Carbon pricing**
 - Carbon price across Canada - \$10/tonne in 2018 rising to \$50/tonne in 2022

Some key Federal Initiatives underway – cont.

Federal government is also advancing important work through Canadian Council of Ministers of the Environment (CCME)

- Article 6 Paris Agreement – role of Internationally Transferred Mitigation Outcomes (ITMOs)
 - Assess opportunities and risk and provide advice to inform federal negotiation position.
- Pan Canadian Offset Framework
 - Focus on guidelines and best practices
- Greenhouse gas inventories
 - Work to align and improve F/P/T greenhouse gas inventories and facility-level reporting
 - Collaboration on emissions projections and approaches to modeling technology change and investment

QUESTIONS

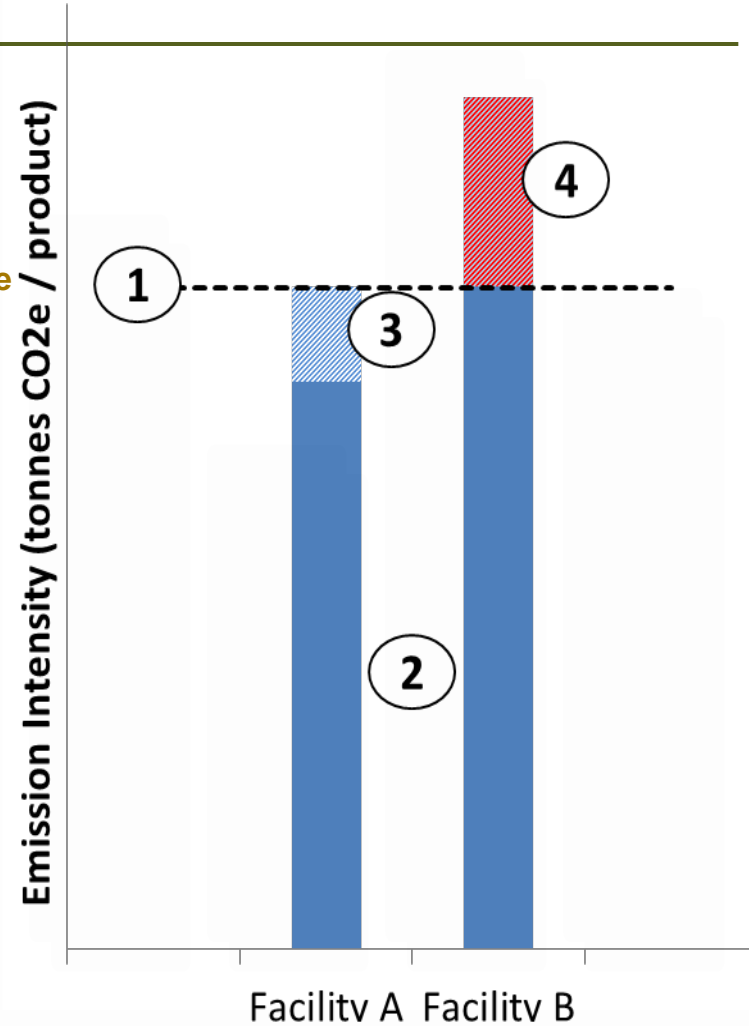
Development of 2018 Program for Large Final Emitters

- Decisions communicated on compliance flexibility to be fully developed through OBA regulatory development process.
 - Forecasting and quarterly reporting for sites over 1Mt
 - 30% limit on flexible compliance through credits
 - Carry forward of SGER credits to 2018 and beyond
- Summary of work to date and upcoming steps from Policy branch.

OUTPUT BASED ALLOCATIONS OVERVIEW

What is an OBA?

1. OBA is set per product on best-in-class performance. Emissions below the OBA are free (not priced).
 - Output-based allocations (OBAs) were recommended by the Leach panel to mitigate against carbon leakage and ensure Alberta competitiveness for trade-exposed sectors.
 - OBAs are common in other jurisdictions such as California.
2. Product emissions intensity (solid blue).
3. Products/facilities with emission intensity below the OBA will have excess emission performance credits.
4. Facilities with emission intensity above the OBA will have compliance obligation – payment or submission of offsets or emission performance credits.



Output Based Allocation System

- **2018: Output based allocation approach will replace the Specified Gas Emitters Regulation**
- **Strategic Intent:**
 - **effectively drives to best-in-class performance.**
 - **improves transparency of performance and benchmarking across facilities and jurisdictions.**
 - **Recognizes competitiveness pressures on Alberta's industry.**

Engagement Scope and Approach

- Discussion Document outlines principles and policy considerations: <https://www.alberta.ca/output-based-allocation-engagement.aspx>
 - Seeking feedback until March 31, 2017
- Multi-phase engagement process focused on four key sector groupings:
 - Electricity and Heat
 - Oil and Gas
 - Chemicals, Fertilizers, Minerals and Metals
 - Coal Mines, Pulp and Paper, Landfills, Food Processing
- Stakeholders from industry, academia and ENGOs invited to provide feedback

Next Steps

- **What We Heard document summarizing input from workshops: Spring 2017**
- **Regulatory framework – Summer 2017**
- **Regulation in effect – January 2018**

2016 SGER Requirements

2016 Price and Stringency

- Carbon Pricing
 - Fund access price for 2016 set at \$20/tonne.
- Stringency increases to 15% reduction requirement for established facilities.
- No limitation in credit usage.

2016 Price and Stringency

- New facilities are according to the following table:

Operation year	2015	2016	2017
4	2%	3%	3%
5	4%	5%	7%
6	6%	8%	10%
7	8%	10%	13%
8	10%	13%	17%
9	12%	15%	20%

Fuel reporting/forecasting

- Additional data reporting on fuel usage
 - Fuel categories as defined under the carbon levy
 - Additional support for emissions estimates
 - Provides data in relation to facility exemption under the levy
 - Identification of any important/significant users of clear transport fuels
- Fuels are those where associated emissions are being reported for the facility under the SGER.

2016 Forms

Break

Program Results Summary

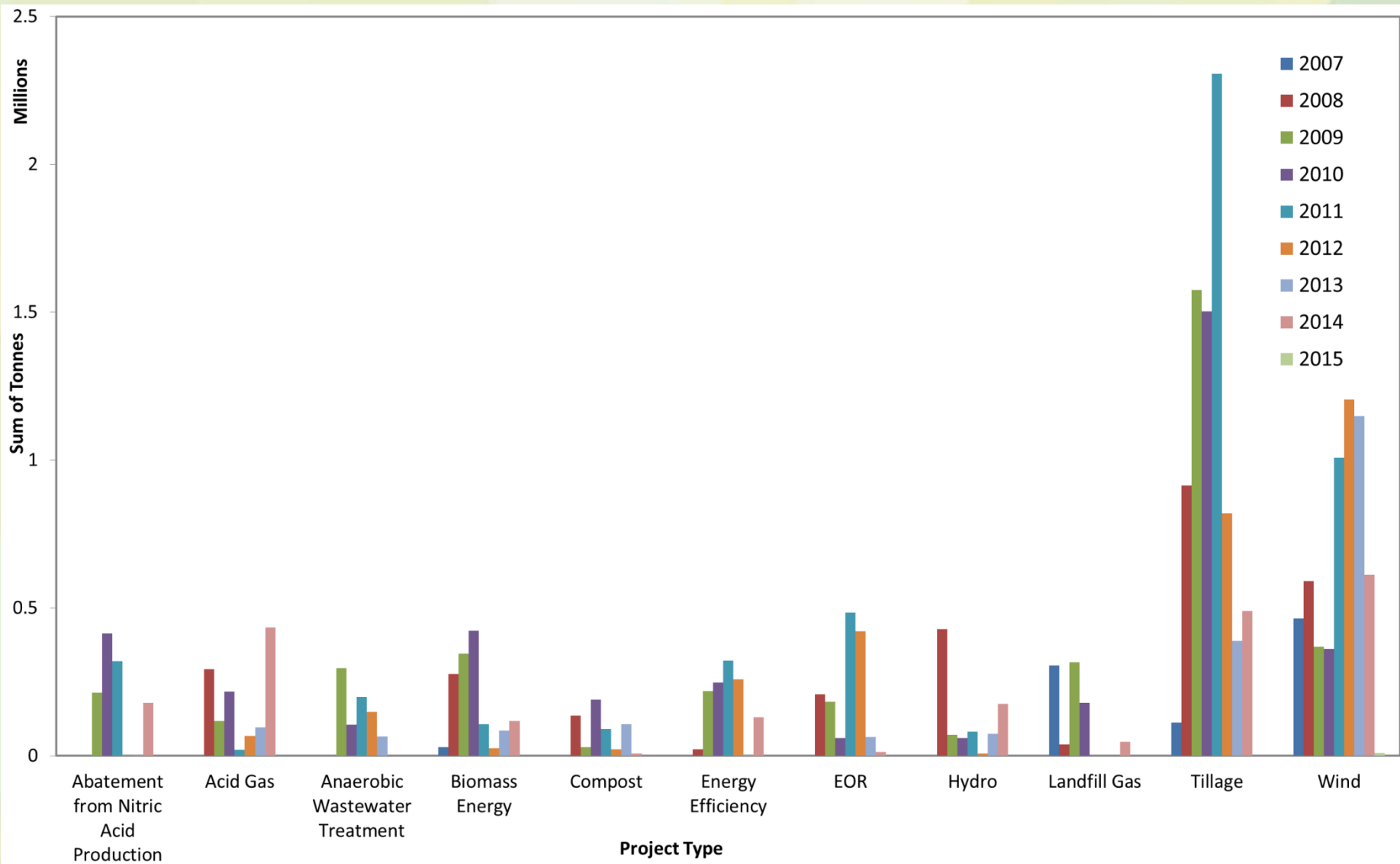
Compliance Year	Emissions Reductions at Facility		Offset Credits Submitted (Mt CO2e)	Total Reductions (Mt CO2e)	Fund Payment (\$Million)
	Facility Improvements (Mt CO2e)	Cogeneration Recognition (Mt CO2e)			
2007 (half year)	1.6	1.3	0.9	3.8	41.3
2008	1.4	2.6	2.7	6.6	83.4
2009	1.3	2.7	3.8	7.7	66.2
2010	0.4	2.6	3.9	6.8	78.9
2011	2.1	2.5	5.4	10	62.9
2012	1.3	3.4	3	7.7	93.5
2013	2	3.3	2	7.3	94.5
2014	5.2	3.1	2.3	10.6	83.8
2015	5.3	3.2	0	8.5	135.6
Total	20.5	24.6	23.9	69	740.1

2015 Obligation by Sector

Sector	Facility Count	EPCs Requested*	Tonnes Owed
Chemical	10	292,547	229,124
Coal Mines	3	8,572	57,470
Fertilizer	5	15,903	289,845
Forest Products	4	520,188	-
Gas Plant	29	431,662	652,547
In Situ	19	2,107,318	1,242,175
Mineral	4	62,228	3,601
Oil Sands	5	720,532	1,625,944
Pipeline	3	35,171	978,899
Power Plant – Coal	8	1,445	4,642,970
Power Plant – Cogen	8	695,555	2,890
Power Plant – Gas	8	-	101,231
Refining	4	-	410,317
Other	3	81,532	91,638

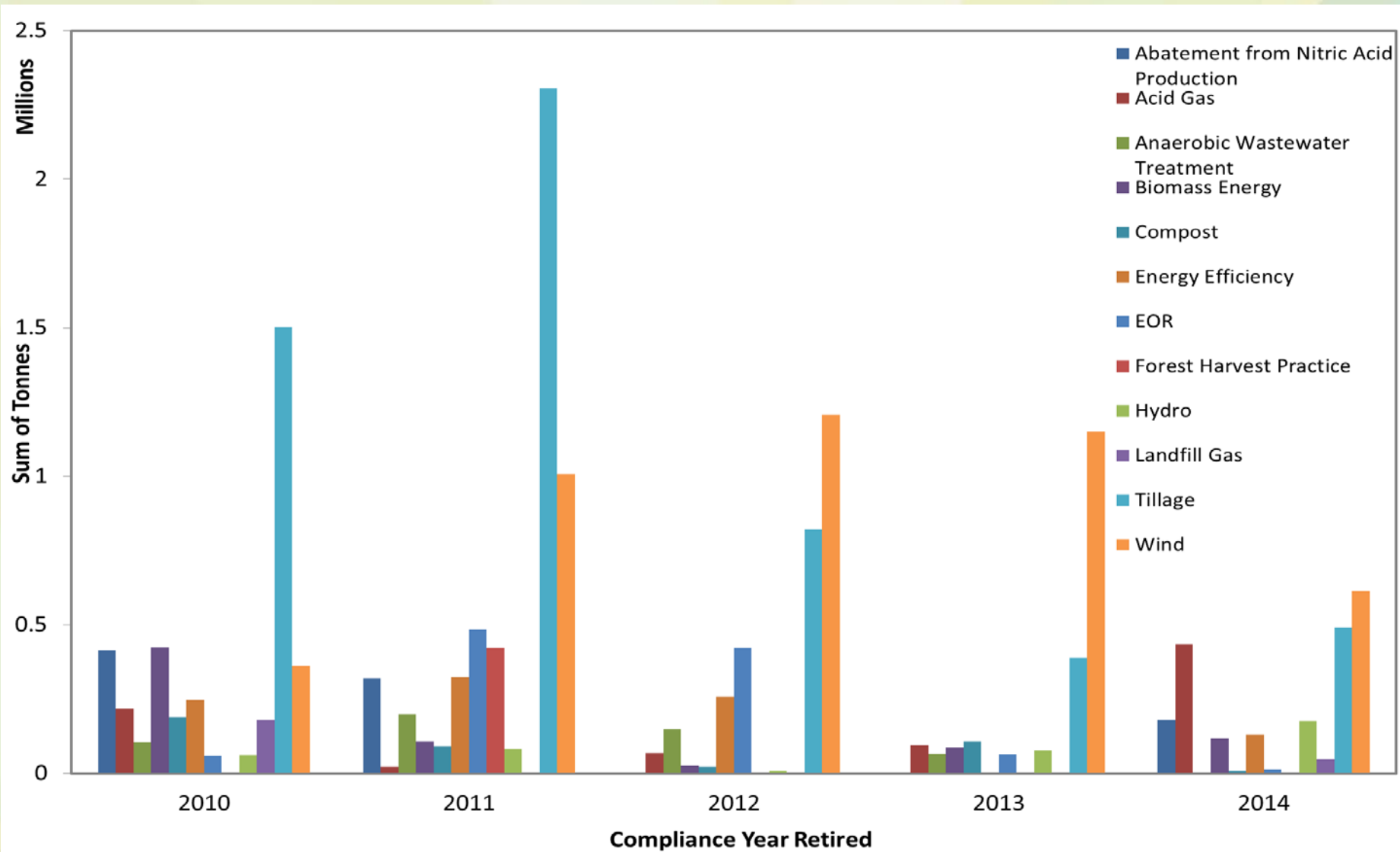
* EPCs requested, actual granted can be found on the EPC registry

Offsets Type by Year Used



Note: Biofuel, Bitumen Binder Substitution in Asphalt Production, Engine Fuel Management and Vent Gas Capture and Forest Harvest Practice projects are not shown above

Offsets Year Used by Type



Note: For 2015 compliance year, 2,939 Engine Fuel Management and Vent Gas Capture offsets and 9,031 Wind offsets retired. Biofuel, Bitumen Binder Substitution in Asphalt Production and Engine Fuel Management and Vent Gas Capture projects are not shown above

2013 – 2015 Audit Summary

Facility Audit Summary

Selections

- **2013 18 audits, 10 facilities and 8 offset projects selected for reasonable level assurance audit**
- **2014 17 audits, 11 facilities and 6 offset projects selected for reasonable level assurance audit**

- **2015 7 facilities and 2 offset project audited**
- **2 baseline audits for new and existing facilities**
- **Risk based plus random element**

Outcomes 2015

- **Most facilities have been contacted to share findings**
- **Qualified statements in 1 case and Auditor didn't provide an opinion in 1 case**

Facility Audit Summary

Site visits

- **Site visit scheduling can be challenging**
- **Would like to avoid audit completion late in the year**
- **Key staff needs to be able to make adequate time available for site visit**

Follow up

- **Introduced a more formal process for audit close out**
- **Certifying Official and facility's third party verifier to sign off on required changes or responses.**
- **Form to be submitted along with next compliance or with resubmission if required**

Reminders/Lessons Learned

- **Use of most accurate methods available is required (where regular gas analysis exists it should be used)**
- **Transparency of record keeping critical for audit**
- **A clear and accurate quantification methodology document is very useful to the auditor or verifier**
- **Quantification methodology documents should not contain annual information or need to be updated annually**
- **Consistency of methodology with baseline must be maintained unless approved or directed by the department.**
- **If you have questions please ask.**

Compliance Standard/Regulation Update

Regulation Updates

- **Updates to reduction target schedule**
- **Introduction of binding standards**
- **Records retention requirements tied to usage of information**
- **Explicit treatment of cogeneration calculations**
- **Additional ability to audit or require additional information on registration of offset project**
- **More clarity around issuance of EPCs**

Standard for Completing Greenhouse Gas Compliance Reports

Primary Updates

- **Introduces legally binding part 1**
- **Removes material redundant to the regulation and other guidance documents or standards**
- **Updates to fund rates and reduction targets**

Finalization

- **Comments in comment template due by April 21**
- **Department will review comments and publish final version by June.**

Lunch

Greenhouse Gas Reporting

Specified Gas Reporting Regulation

- **Alberta's mandatory GHG reporting program**
- **Builds on voluntary reporting by most Alberta emitters since mid-1990s**
- **Regulation and Standard passed in 2003**
- **Continue to work with the national "one-window" reporting system**
- **Threshold currently set at 50 kt**

Specified Gas Reporting Regulation

- **Emissions reporting data used federally to report inventory through NIR**
- **Emission reporting data used to inform policy development and analysis**

Specified Gas Reporting Regulation - Future Changes

- **Federal Gazette 1 – Reporting threshold intent to drop to 10,000 tonnes of CO₂e**
 - Prescribing methodology for certain sectors
 - To be required for 2017 emission year submission in 2018
- **Working in collaboration with Environment and Climate Change Canada**
- **Ease reporting burden on Alberta Stakeholder one window reporting under ECCC Swim System**
- **Developing standardized quantification guidance**

Specified Gas Reporting Regulation- Quantification Methodology Objectives

- **Improves the comparability of reported GHG data across jurisdictions**
- **Increase completeness and consistency in emission reporting**
- **Enables further use of GHG reporting data to inform provincial inventory as well as policy development and analysis**
- **Aligned with OBA**

Offset System Overview

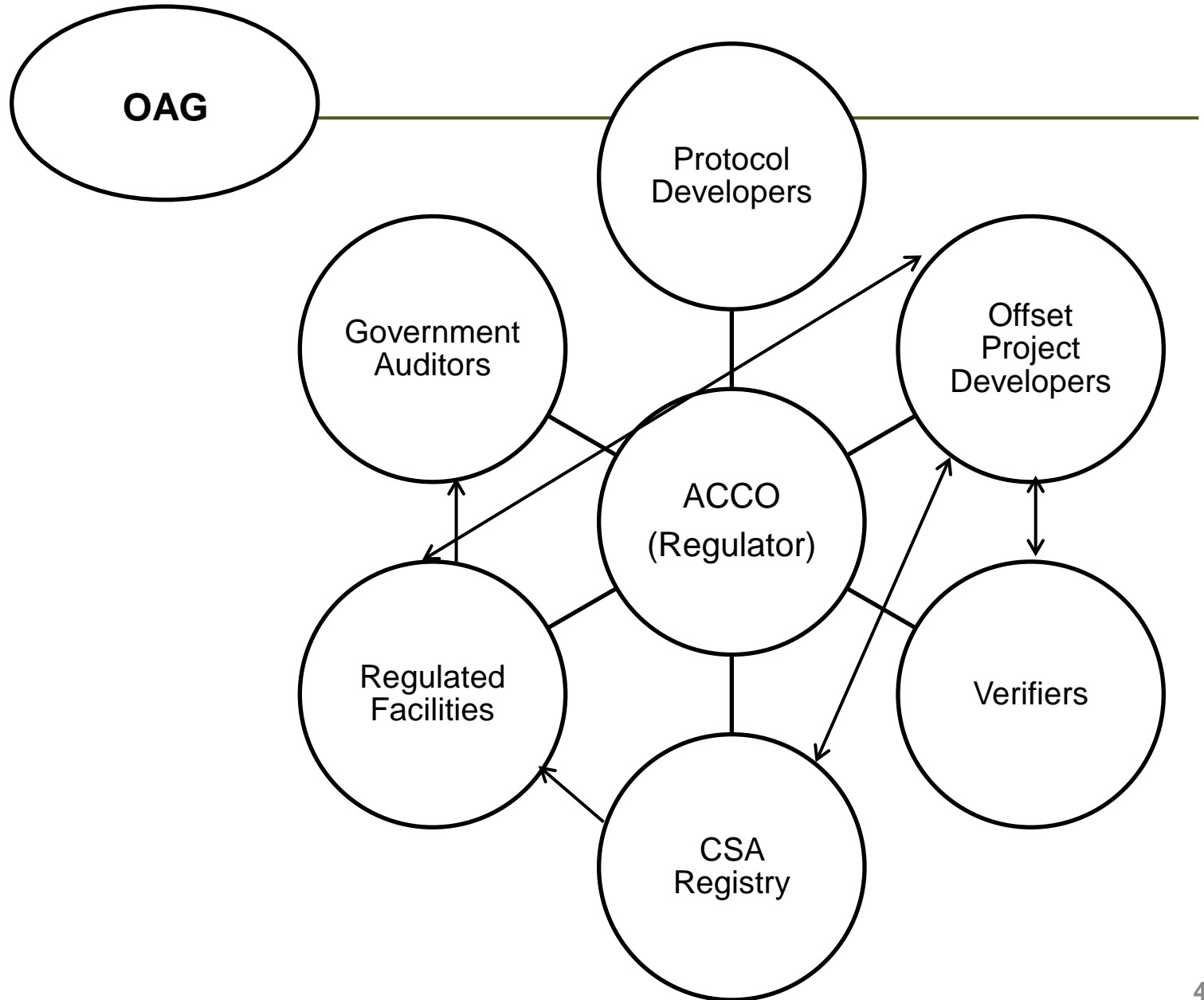
Emission Offsets

- **Are a compliance flexibility mechanism**
- **A market based tool that provides a means of expanding the reach of the regulatory framework by incenting emissions reductions outside of the regulated facilities.**
- **Key rules:**
 - **Reductions must occur in Alberta**
 - **Must be “Additional” – result from an action, change in practice or technology that is beyond business as usual and not otherwise required by law.**
 - **Must result from actions taken on or after Jan 1, 2002**
 - **Must be real, demonstrable, and quantifiable or measurable**
 - **Must use an approved protocol and be verified by qualified third party and must be auditable**

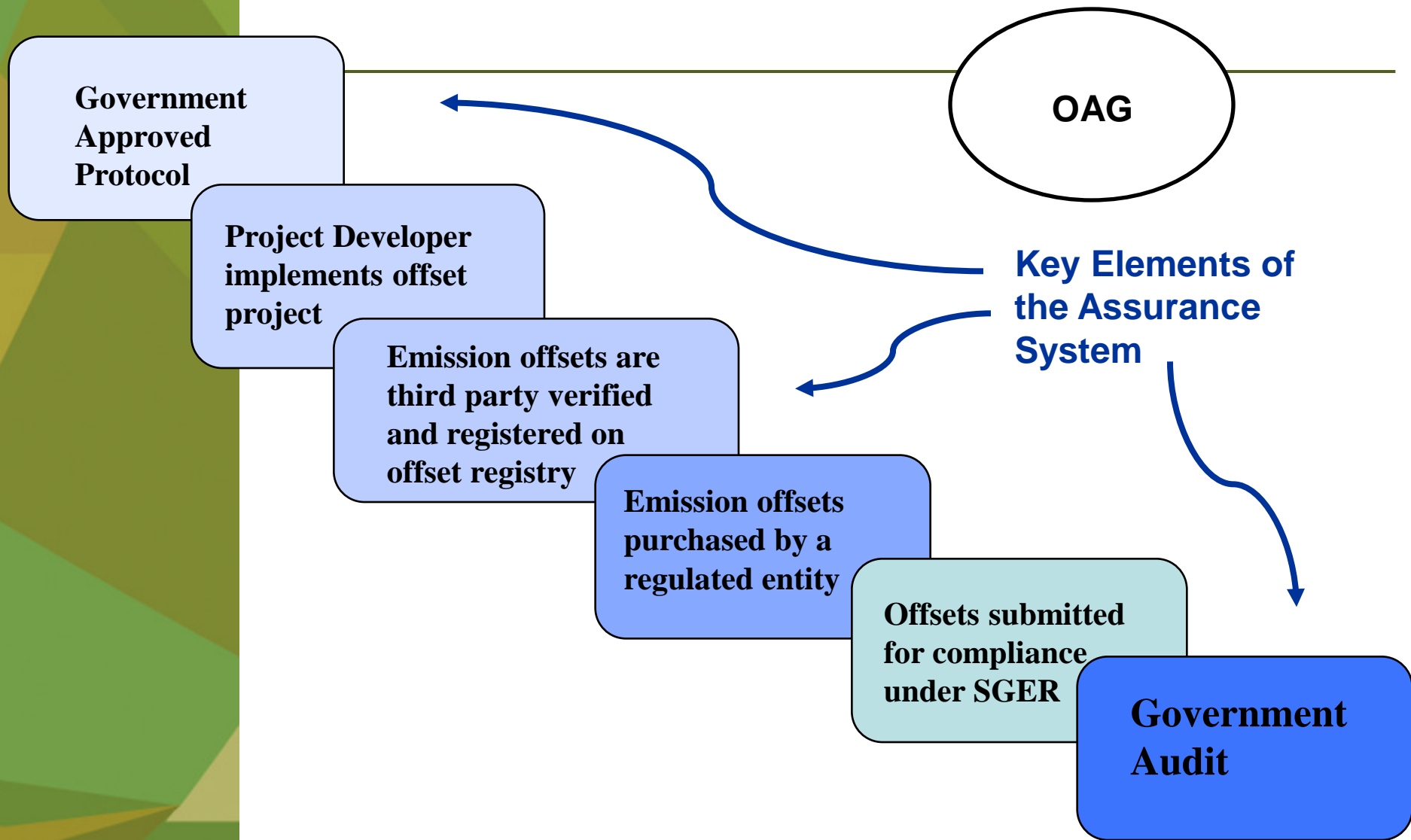
Benefits of Emission Offsets

- **Real and immediate GHG reductions in Alberta.**
 - **GHG reductions that count toward reporting of Alberta and Canada's GHG reductions**
- **Cost-effective compliance for facilities unable to achieve on-site reductions.**
 - **Regulated facilities in Alberta are investing in Alberta-based emission offset projects.**
- **Economic diversification in Alberta**
 - **Emission offsets drive private investment directly to Alberta-based projects**
- **Drive emission reductions outside of our regulatory framework**
 - **Financially support reductions by Alberta businesses not regulated by SGER.**

Key Actors in the Offset System



Emission Offset Process



Industrial Methane/N₂O Emissions

- Pneumatic devices
- Engine fuel mgmt and vent gas capture
- Solution gas conservation
- N₂O abatement from nitric acid production

Biological Methane

- Anaerobic decomposition of agri. materials
- Anaerobic wastewater treatment
- Dairy cattle
- Fed cattle
- Composting
- Landfill bioreactor
- Landfill gas capture

Agricultural Lands

- Conservation cropping
- Agricultural N₂O reductions

Decreased Energy/Fuel Use

- GHG reductions from forest harvest practices
- Energy efficiency for C&I buildings
- Energy efficiency projects
- Conversion of drilling rigs from diesel-electric to high line elec.
- Fuel switching in mobile equipment
- Gravel and lightly surfaced road rehab.
- Substitution of bitumen binder in asphalt
- Waste heat recovery
- Engine fuel mgmt and vent gas capture

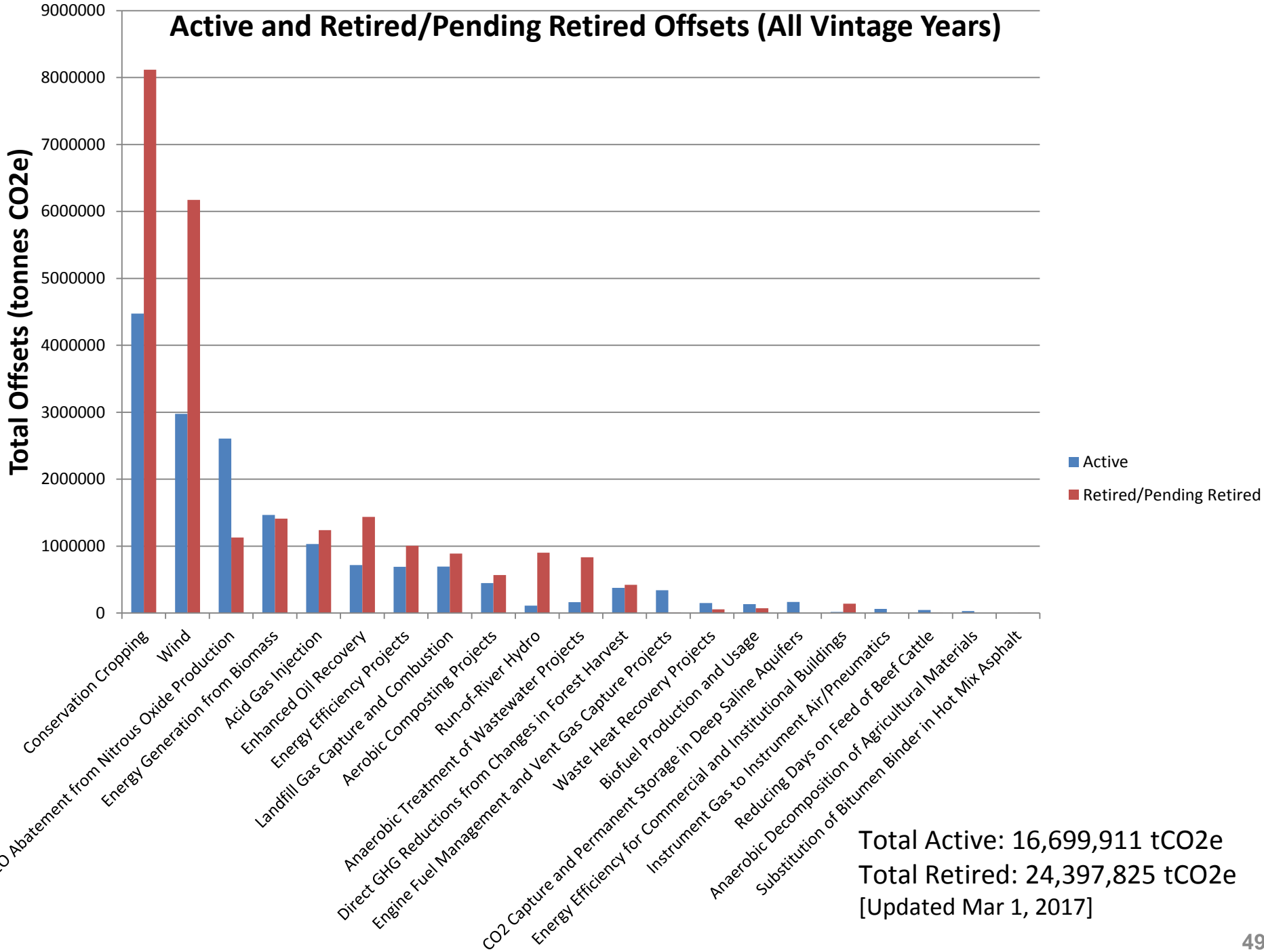
Renewable Energy/Fuels

- Biofuels
- Distributed renewable energy generation
- Biomass energy
- Run-of-river hydro
- Non-incineration of thermal waste conversion
- Solar
- Wind

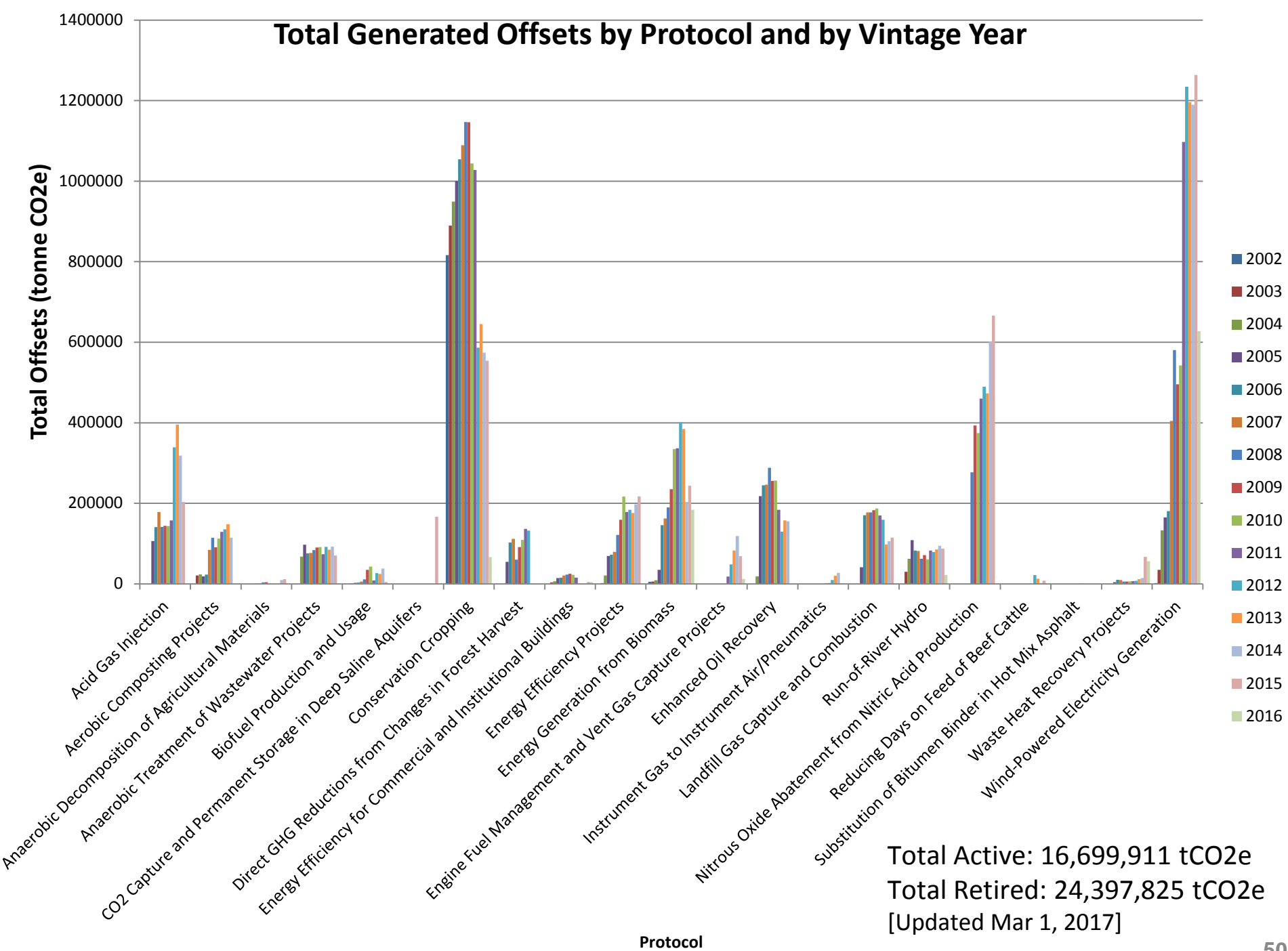
CO₂ Sequestration

- CO₂ capture and storage in deep saline aquifers
- EOR

Active and Retired/Pending Retired Offsets (All Vintage Years)



Total Generated Offsets by Protocol and by Vintage Year



Offset Audits 2013 – 2015

- **Offset projects audited to a reasonable level of assurance:**
 - 8 offset projects for 2013
 - 6 offset projects for 2014
 - 2 offset projects for 2015
- **Audit selection a risk-based process with incorporation of a random element**
- **Outcomes:**
 - **No material overstatements.**
 - **Some immaterial findings requiring go-forward correction**

Offsets Used for Compliance

(Mt)	2007 half year	2008	2009	2010	2011	2012	2013	2014	2015	Total
Emission Offsets Submitted	0.88	2.68	3.75	3.85	5.39	2.99	2.03	2.32	0.01	23.9
Offset Use as a proportion of total compliance	0.23	0.31	0.42	0.38	0.56	0.32	0.21	0.23	0.00	0.30

- Government of Alberta does not mandate offset prices, but technology fund entry price serves as a ceiling**
 - \$20/tonne CO₂e for 2016 compliance year
 - \$30/tonne CO₂e for 2017 compliance year

Carbon Offset Emission Factors Handbook

- **Version 1 published March 2015**
- **The handbook includes:**
 - **Section 1: Commonly used emission factors**
 - GWP, grid electricity factors, common fuel emission factors, etc.
 - **Section 2: Common quantification methods**
 - Quantification of Avoided Landfill and Stockpile Methane Emissions methodology
- **Handbook is intended to be updated periodically**
- **All new projects required to use handbook values and methodologies. All current projects must update upon crediting period extensions.**
 - **Guidance for voluntary updates to Handbook available in Draft Standard for Offset Project Developers**

Offset Protocol and Guidance Updates – Fall 2013 onwards

Protocol/Document	Change
Draft Standard for Greenhouse Gas Emission Offset Project Developers	Released for public post Feb 2017
Carbon Offset Emission Factors Handbook	Handbook released Mar 2015
Greenhouse Gas Emission Reductions from Pneumatic Devices	Protocol updated Jan 2017
Aerobic Composting	Protocol updated Jan 2017
Aerobic Landfill Bioreactor	Protocol updated Sept 2016
Reducing Greenhouse Gas Emissions from Fed Cattle	Protocol updated Feb 2016
Landfill Gas Capture and Combustion	Protocol updated Sept 2015
Agricultural Nitrous Oxide Emission Reductions	Protocol updated Sept 2015
CO2 Capture and Permanent Storage in Deep Saline Aquifers	Protocol released June 2015
Biofuel Production and Usage	Protocol updated Oct 2014
Energy Generation from the Combustion of Biomass Waste	Protocol updated Apr 2014

System Learnings

- **Records management and strong verification requirements are key:**
 - System-wide move from Limited to Reasonable assurance and go-forward crediting in 2012
- **Biological-based quantification is complex:**
 - Complexity in protocol development, baseline setting
 - Complex record-keeping and monitoring in commonly aggregated methodologies
- **Regulatory-level accountability for overall program under SGER**
 - Emission offsets are not always the perfect fit

Carbon Levy and Protocols

The Carbon Levy

- **The Climate Leadership Plan broadens the coverage of carbon pricing in Alberta by applying a carbon levy on fuel usage**
- **As of January 1, a carbon levy is charged on transportation and heating fuels that emit greenhouse gas emissions when combusted at a rate of \$20/tonne in 2017 and \$30/tonne in 2018.**
- **Facilities that are subject to the Specified Gas Emitters Regulation are exempt from the carbon levy.**

Alignment

- **Application of the carbon levy provides a price signal to reduce or avoid the greenhouse gas emissions from the use of transportation and heating fuels.**
 - **Price signal in 2017 is \$20 per tonne and in 2018 is \$30 per tonne of emissions avoided.**
- **Price signal also provided for reduction in these emissions through inclusion in the offset system**
 - **Offset value is determined by market but typically trades at a slight discount to fund price.**
- **Two separate carbon prices are applied to the same reduction.**

Alignment of Protocols

- **The Offset system currently has 34 protocols**
 - **15 have been identified as providing an offset for a levied reduction**
- **On February 14th, 2017, the department issued a MEMO outlining that these protocols will be flagged and reviewed**
- **Focus of review – alignment**
- **Work closely with existing projects under each protocol**

Alignment of Protocols

- **During this period, projects may only be brought forward under a flagged protocol with explicit permission from Director.**
- **Expected to complete the revision of protocols that are currently flagged by December 2017.**
- **Aligning with the carbon levy will be an ongoing process and future reviews of protocols to align with the levy are anticipated.**

Alignment of Projects

- **There are approximately 27 existing projects that may be affected by the review**
- **Any impact to projects will be assessed throughout 2017**

Draft Standard for Offset Project Developers

Posted for public review and comment until April 21, 2017



Why is it called a Standard?

- **Specified Gas Emitters Regulation (SGER) was revised in 2015**
- **Revision included reference to ‘Standards’**
 - **Takes place of guidance**
 - **Increased enforceability**
- **Based on Technical Guidance for Offset Project Developers (version 4.0)**

What has changed?

Organization and Clarity

- **Organization – Part 1 and Part 2**
 - Part 1 requirements in legal, more enforceable language
 - Part 2 requirements in more explanatory language (still enforceable)

- **Reduced Redundancy**
 - Requirements in the Specified Gas Emitters Regulation not repeated in Standard
 - Requirements in Part 1 not repeated on in Part 2
 - Reduced redundancy compared to Technical Guidance for Offset Project Developers

What has Changed?

Language

- Added reference to **Carbon Offset Emission Factors Handbook**
- Language was changed to be more consistent with the *Climate Change and Emissions Management Act* and the **Specified Gas Emitters Regulation**
 - **Credit start date = offset start date**
 - **Credit period = offset crediting period**
 - **Offset credits = emission offsets**
 - **Revoked = cancelled**
 - **Removals/reductions = removals, capture or sequestration**

What has Changed?

Deviation Requests

- **Added guidance on deviation requests in Part 1 and Part 2**

Quantification protocol

- 6(1) Subject to subsection (2), an emission offset project must:
- (a) comply with the requirements of the applicable quantification protocol, and
 - (b) be initiated and implemented according to the most current version of the applicable quantification protocol as of the date that the emission offset project developer submits the project plan to the Registry in accordance with section 11.
- (2) The emission offset project developer may, prior to submitting a project report to the Registry under section 15, apply to the director for a deviation from one or more of the requirements of a quantification protocol.
- (3) The director may grant or refuse to grant a deviation in subsection (2).
- (4) Where the director grants a deviation in subsection (2), the director may impose any terms and conditions that the director considers appropriate with respect to the deviation.
- (5) The emission offset project developer shall not initiate or implement an emission offset project using a flagged protocol without prior written approval from the director.

What has Changed?

Project Extensions

- **Crediting period extension requests must be received no more than 6 months and no less than 30 days before end of the crediting period.**

Extension period

14(1) The emission offset project developer may apply to the director, no more than six months and no less than thirty days before the last day of the offset crediting period of an emission offset project, for an extension period.

- **Clarification: Extension periods begin immediately following the last day of the offset crediting period**

What has Changed?

Error Correction

- **Clarified error correction process for errors identified by the project developer after registration. See 21(1) in Draft Standard.**
- **Made the error correction requirements for self-identified errors consistent with errors identified in government audits.**
- **Aligned the error correction process with the Standard for Compliance**

What has Changed? Project Initiation

- **Project Plan Updates**
 - **Added more clarity on when an update to a project plan is required**
- **Project Initiation (Creation) Deadline:**
 - **A project is initiated when a project developer submits their project plan to the Registry**
 - **We will be adding a deadline for project initiation of December 1**
 - This will be for projects that wish to initiate their project prior to the calendar year end.
 - **Why? This allows for Registry processing times**
 - **Was meant to be in Draft, will be in Final**

What has Changed? Verification

- **Clarified the requirement that an offset project developer may only use the same verifier for 5 verifications in a row, then they must take a 2 verification break**
- **Deleted the requirement for aggregated projects to only use the same verifier for 8 verifications**

What has Changed?

Aggregated Project Tracking

- Aggregated project planning sheet (to be submitted with the project plan) See Part 1 Section 11(1)(b)
- Aggregated project reporting sheet (to be submitted with the project report) See Part 1 Section 15(1)(b)
- Why?
 - Allows project developers to demonstrate when subprojects are added or removed from a project
 - Helps the Registry and verifiers to ensure that the crediting periods for subprojects are aligned with the offset project
 - Ensures that there is no overlapping reporting periods for subprojects offset start date for subprojects added part way through a project receive the appropriate crediting period

What has Changed?

Protocol Withdrawal and Revision

- **Clarified the possible reasons for protocol withdrawal**
- **Clarified that when a protocol is revised or withdrawn because the activity becomes regulated the crediting period for existing projects end immediately**
- **Provided some flexibility for the Director to have discretion on the impact to existing projects when protocols are withdrawn/revised**

What has Changed?

Offset Start Date

- Starting in 2018 the offset start date is the first day on which the project plan is posted to the Registry
- See Part 2, Section 2.2
- Why?
 - To ensure projects are planned,
 - To ensure go-forward crediting,
 - To ensure availability of records, and
 - To alleviate end of year rush for the Registry

What has been Clarified? Ownership

- **Emphasized that the onus to demonstrate ownership is on the project developer**
- **It is not the department's responsibility to require how ownership is transferred or negotiated; it is the project developers responsibility to demonstrate ownership**

Location of Document

Alberta Environment and Parks

Home News About Us Air **Climate Change** Fish & Wildlife Forms, Maps, Services Lands & Forests Recreation & Public Use Waste Water

Climate Change > Guidelines and Legislation > Specified Gas Emitters Regulation > **Offset Credit System Protocols**

▾ Guidelines and Legislation
 Administrative Penalty Regulation
 Fund Administration Regulation
 Renewable Fuels Standard Regulation
 ▾ Specified Gas Emitters Regulation
 Information for Industry
Offset Credit System Protocols
 Specified Gas Reporting Regulation
 ▸ Programs and Services
 Reports and Data

Offset Credit System Protocols

[Show All](#)

- [Alberta Carbon Offset System Guidance](#)
- [Approved Quantification Protocols](#)
- [Carbon Offset Emission Factors Handbook](#)
- ▾ [Draft Documents under Development](#)

Alberta's protocol development process can be found in the protocol guidance document above. Protocol developers must adhere to each step in order for the protocols to be approved for use.

Prior to approval, all draft protocols and guidance documents are posted for a 30-day public review and comment period.

To comment on a document:

1. Review each document.
2. Make your comments for each document using the comments forms provided.
3. When you have finished making comments, save the comments form to your desktop.
4. Forward your completed comments form to: AEP.GHG@gov.ab.ca

Draft Standard for Greenhouse Gas Emission Offset Project Developers

- [Standard for Greenhouse Gas Emission Offset Project Developers \(DRAFT\)](#) - Feb 1, 2017 (55 pages, <1 MB)
- [Comments Table for Standard for Greenhouse Gas Emission Offset Project Developers](#) - Feb 7, 2017 (2 pages, <1 MB)

Quantification Protocol for Greenhouse Gas Reductions from Pneumatic Devices

- [Summary of Feedback and Responses](#) - Jan 25, 2017 (9 pages, <1 MB)

Quantification Protocol for Aerobic Composting

**Please submit comments on
the Draft Standard to
AEP.GHG@gov.ab.ca by April
21, 2017**

Break

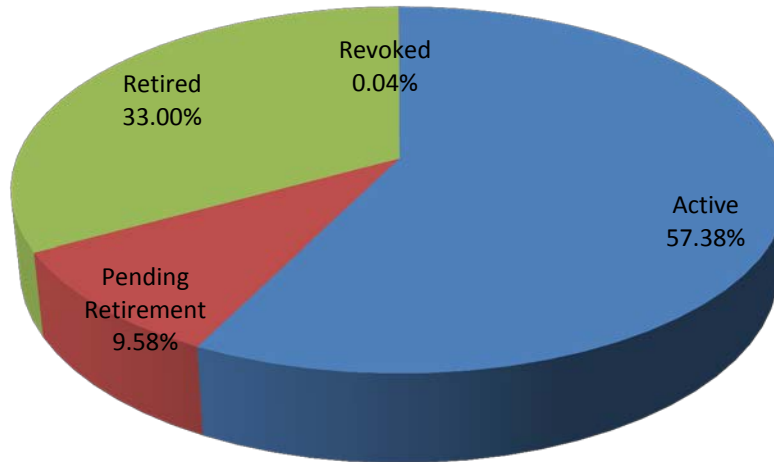
Alberta Carbon Registry Activity and Updates

Alberta Carbon Registry Regulatory System Infrastructure

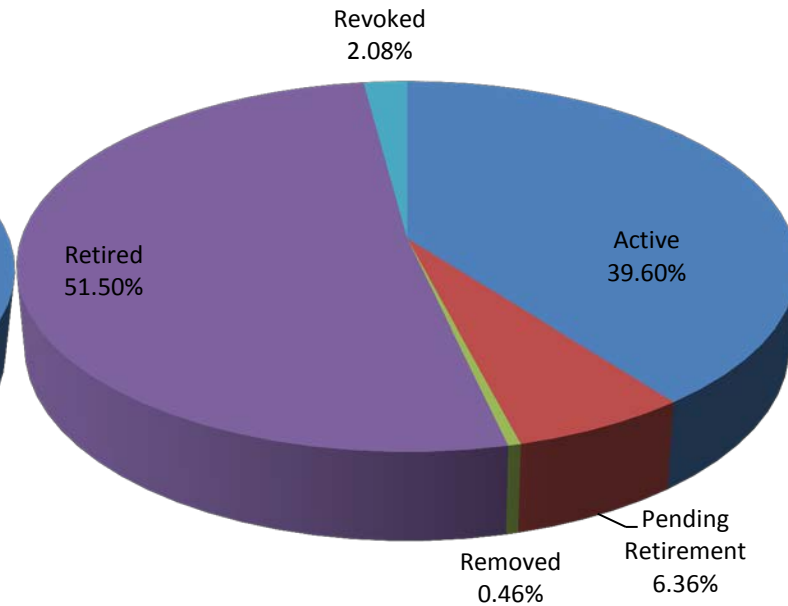
- Mandatory tracking and transparency platform to support the regulation
- Unique identifiers = projects/emission reductions
- Showcase and meeting place for buyers and sellers
- Bilateral transactions → outside the registry
- Usage for compliance must demonstrate pending retirement of the serialized range of offsets
 - **Active/Registered/Serialized/Others** = serialized offsets identified and still active listed in current owner name
 - **Retire/Pending Retire/Removed/Revoked** = credit is out of circulation and no further action allowed

Emissions Offsets and EPC's

Status of Emission Performance Credits



Status of Emission Offsets



- Total of 47,419,898 emission offsets
- Total of 20,633,974 emission performance credits
- Alberta Carbon Registries managed by CSA Group Registries – Will, Jose Luis, and team

Alberta Carbon Registries



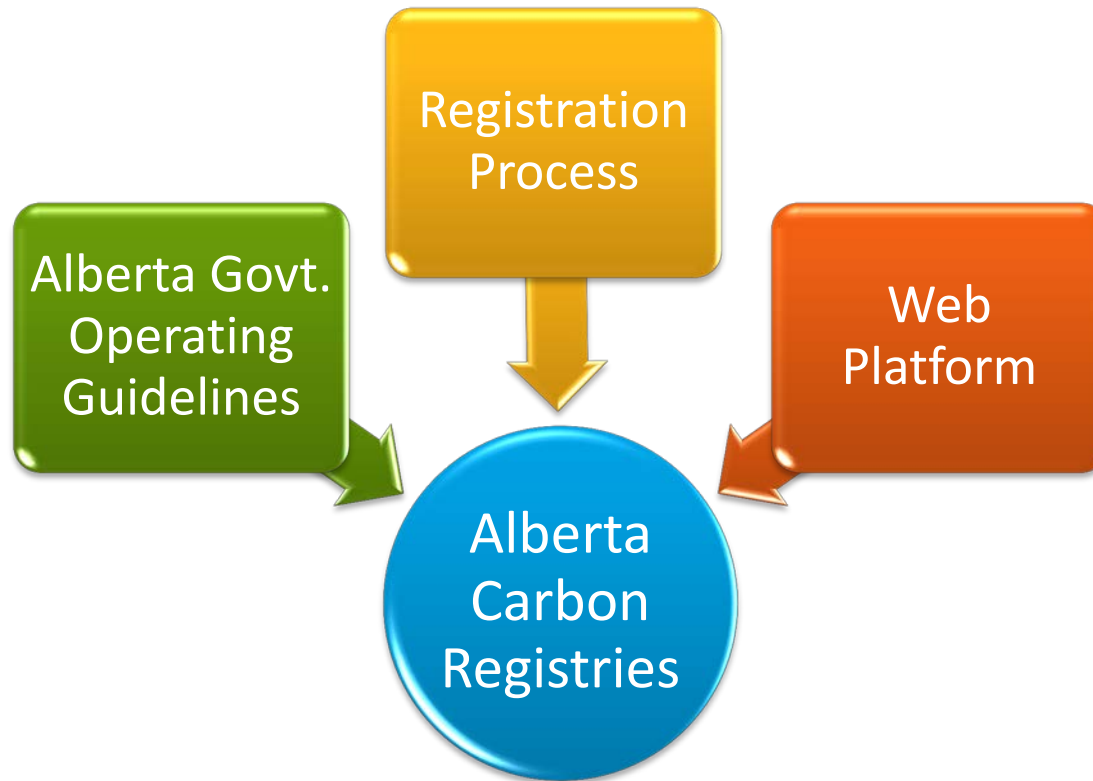
**CSA
Group**

Jose Luis Hernandez – *Program Manager, Environment & Climate Change*

Will Birchall – *Project Manager*

Definition

Listing of documents and records used to substantiate and justify claims and assertions.





Registration
Process

- Ensures requirements in operation procedures have been assessed
- Process from submission to posting
- Document management
- Evaluation checklist for completeness
- Traceability and auditability



The New Alberta Carbon Registries

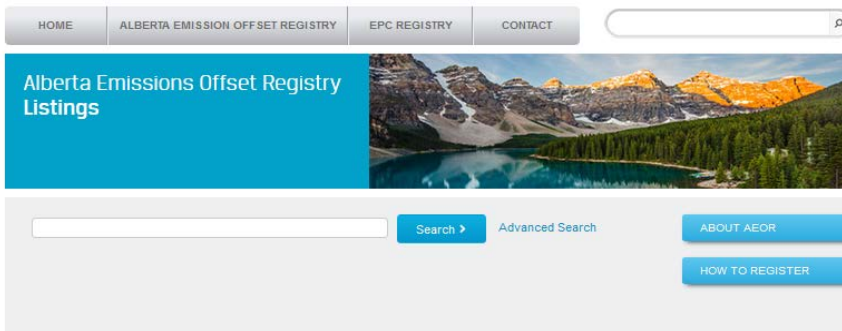
Web
Platform

SIGN IN TO YOUR ACCOUNT

LOGIN >

> CLICK HERE TO CREATE A NEW ACCOUNT

- Public Listing
- Improved process
- Account based system
- Configurable permission levels
- Reporting on request
- Manual submissions still available until April 1st!



HOME ALBERTA EMISSIONS OFFSET REGISTRY EPC REGISTRY CONTACT

Alberta Emissions Offset Registry Listings






Search > Advanced Search ABOUT AEOR HOW TO REGISTER

There are 187 projects listed in the Emissions Offset Registry.

Title: 2007 Tillage Auction Project		Project Identifier: 8626-3432	
Start	2002-01-01	2002 - 13,652 t CO ₂ e	
End	2007-12-31	2003 - 13,958 t CO ₂ e	
Country	Canada	2004 - 13,888 t CO ₂ e	
Type	No-till agriculture	2005 - 14,206 t CO ₂ e	Estimated Annual Emission Reductions
Quantification Protocol	Tillage System Management	2006 - 14,352 t CO ₂ e	
Estimated Lifetime Emission Reductions	107,041 t CO ₂ e	2007 - 36,980 t CO ₂ e	

Title: Advantage Glacier Acid Gas Injection Offset Project		Project Identifier: 8674-5363	
Start	2011-10-27	2011 - 5,723 t CO ₂ e	
End	2019-10-26	2012 - 31,126 t CO ₂ e	

Help us improve the processing time for your requests by checking the following;

-  Signed and dated
-  Check your templates
-  Contact information
-  Version management
-  Statement of verification

Thank You!

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Closing