



Global Perspective on Methane Emissions

OUR MEMBER COMPANIES



Climate Investment:

An independently managed decarbonization investor



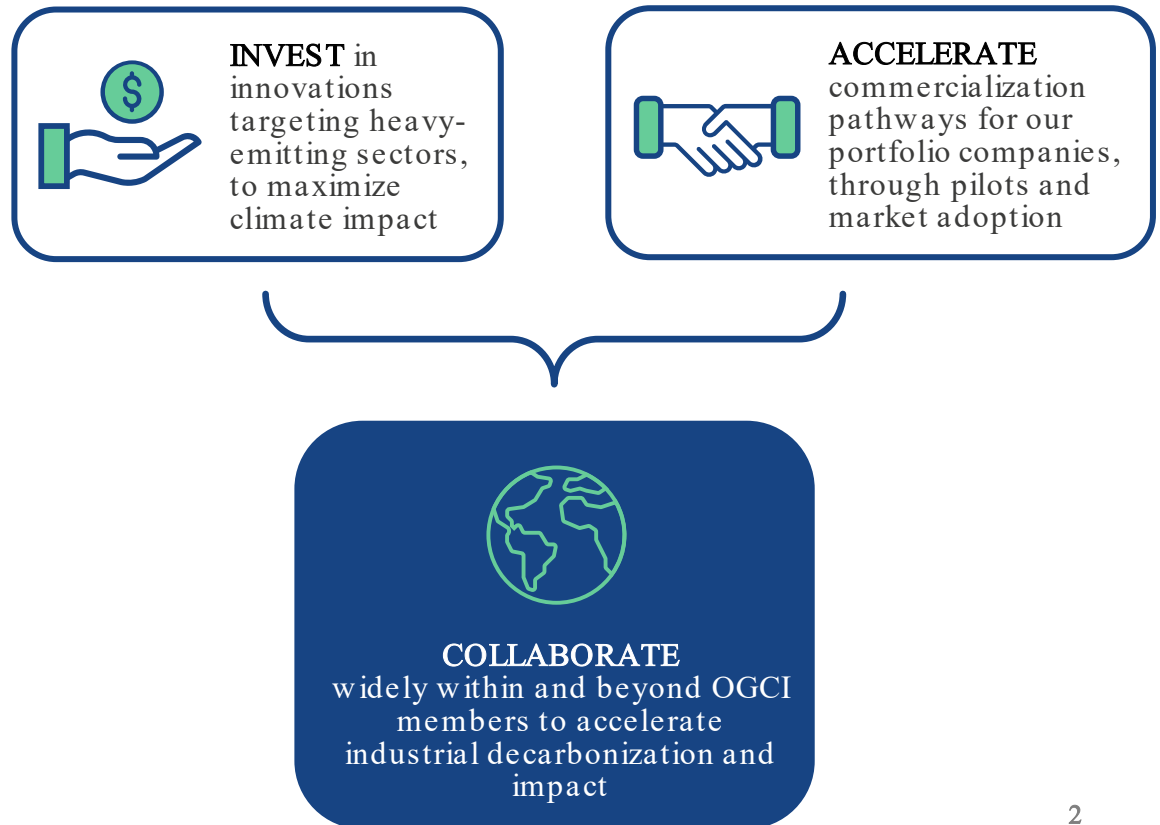
The Initiative:

Lower carbon via collective action and partnerships



Climate Investment (CI):

Industrial decarbonization through innovation, collaboration, acceleration and impact



Proven Methane Technologies & Services

- Remote Sensing



- Mitigation



- Data Platform



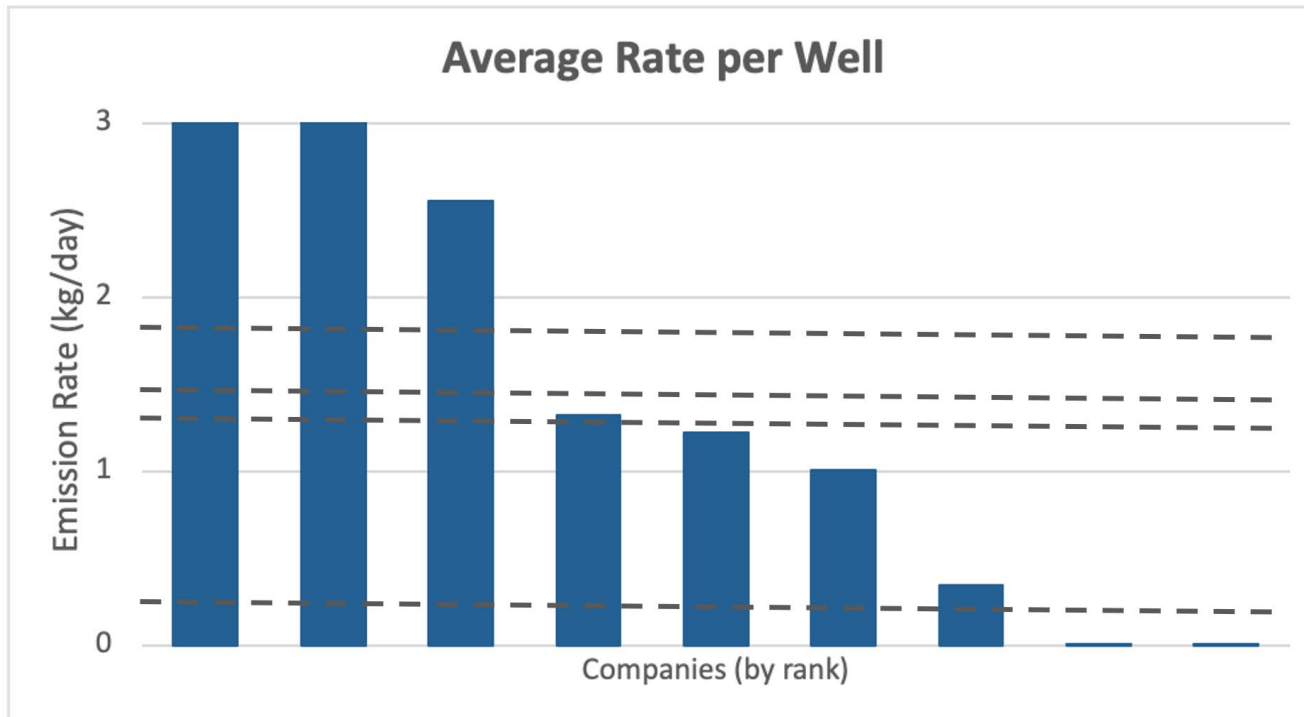
SeekOps Learnings (in-situ sensor on drone)



- Deployment from platforms/ supply vessels enable quadcopter (improved measurement)
- We have seen varied deployments (environment, geography)
- Enabled OGMP 2.0 (Level 5) preparation for the following customers:



Kairos Aerospace Learnings (Aerial)



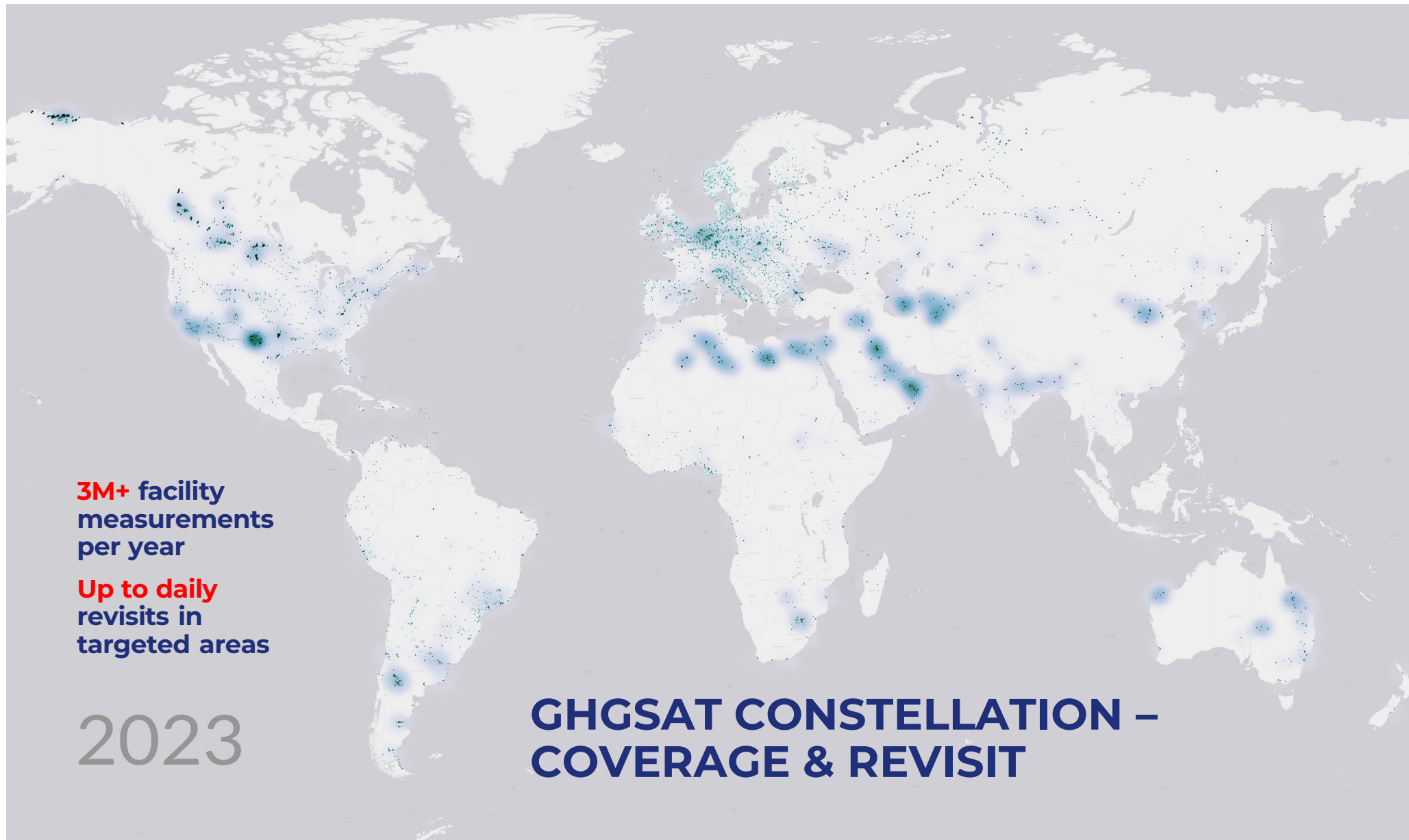
First aerial survey and benchmark of the Neuquén Basin (Argentina)

Neuquén
Barnett
Permian
DJ





GHGSat Learnings (Satellite)



3M+ facility measurements per year

Up to daily revisits in targeted areas

2023

GHGSAT CONSTELLATION – COVERAGE & REVISIT

Summary Points

- Local partners go a long way in mitigating risk (especially internationally)
- Super emitters are still a major issue. International upstream methane emissions often follow similar distribution to those in US
- Getting governments and operators engaged has taken time but it is gaining traction with the global methane pledge and resulting climate diplomacy.
- There are some stand outs regionally such as Ecopetrol in Colombia, Net Zero Technology center in Scotland, We've also seen Carbon limits of Norway help in some of the most difficult areas.
- Thanks to OGCI member companies to help with globalizing actions, in particular bp, Oxy, Chevron, ExxonMobil, Shell, Repsol, Aramco, TotalEnergies, and Methane Guiding Principles in their outreach.



end



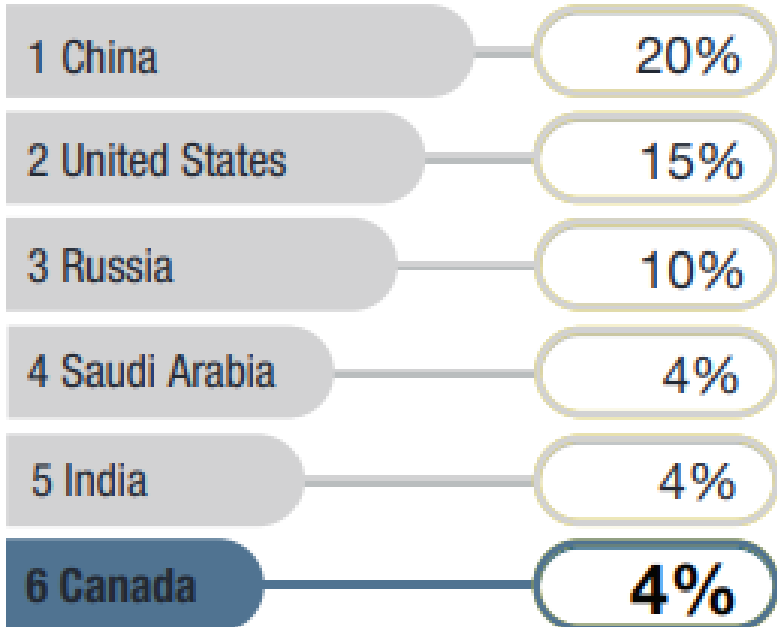
Canadian Perspectives on Reducing Methane

Jessica Shumlich, CEO

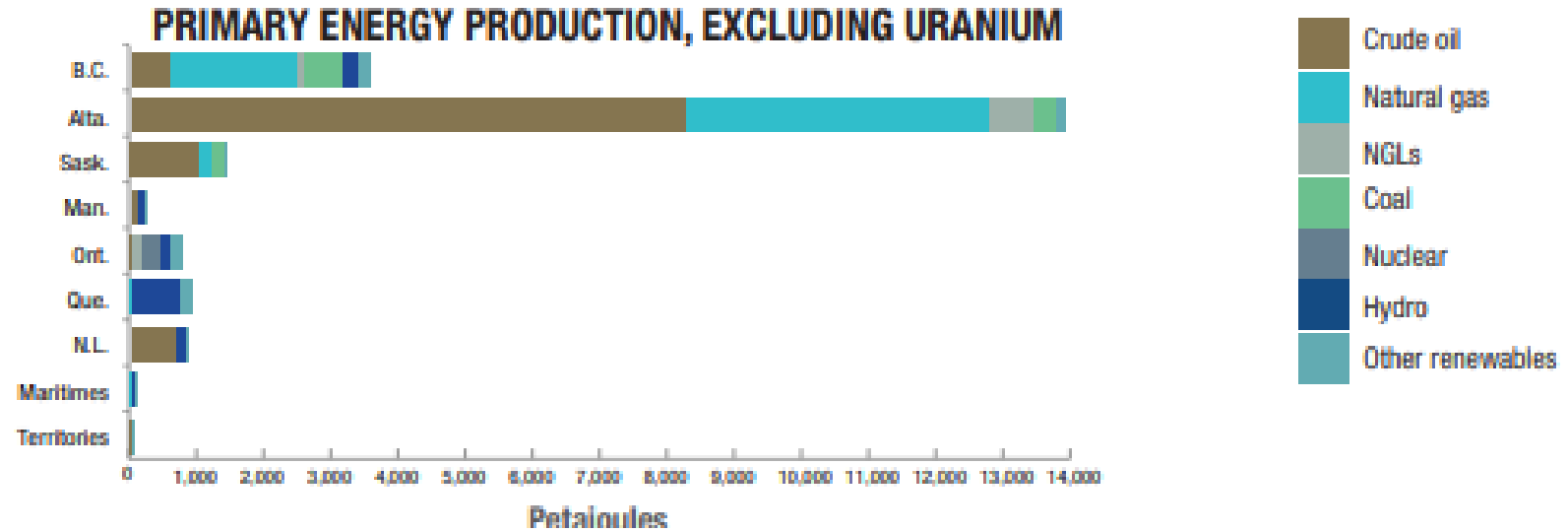


Canadian O&G Overview

WORLD TOTAL PRIMARY ENERGY PRODUCTION TOP ENERGY PRODUCERS, 2020



Source: NRCAN, Energy Fact Book, 2023



Source: NRCAN, Energy Fact Book, 2023

Canada Regulatory Overview

- Environmental Climate Change Canada (ECCC)
 - 75% Methane emissions reduction target by 2030 from 2012 levels (upstream)
- Canadian Securities Administration (CSA)
 - New proposals for climate disclosures
- Alberta Environment & Alberta Energy Regulator
- British Columbia Energy Regulator
- Regulated carbon offset market
- Carbon tax

Alberta's Methane Emissions Reduction Initiative



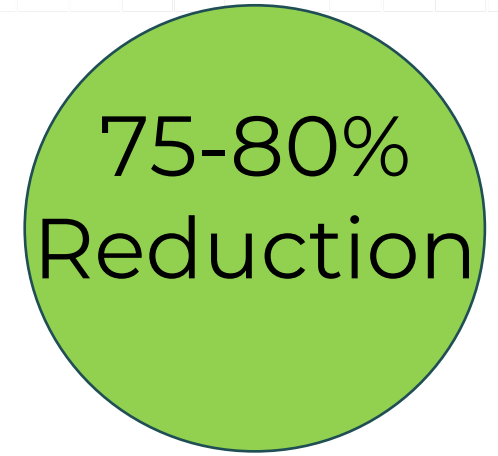
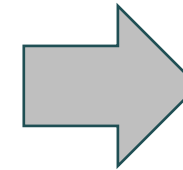
1990 & forward



2020-2023

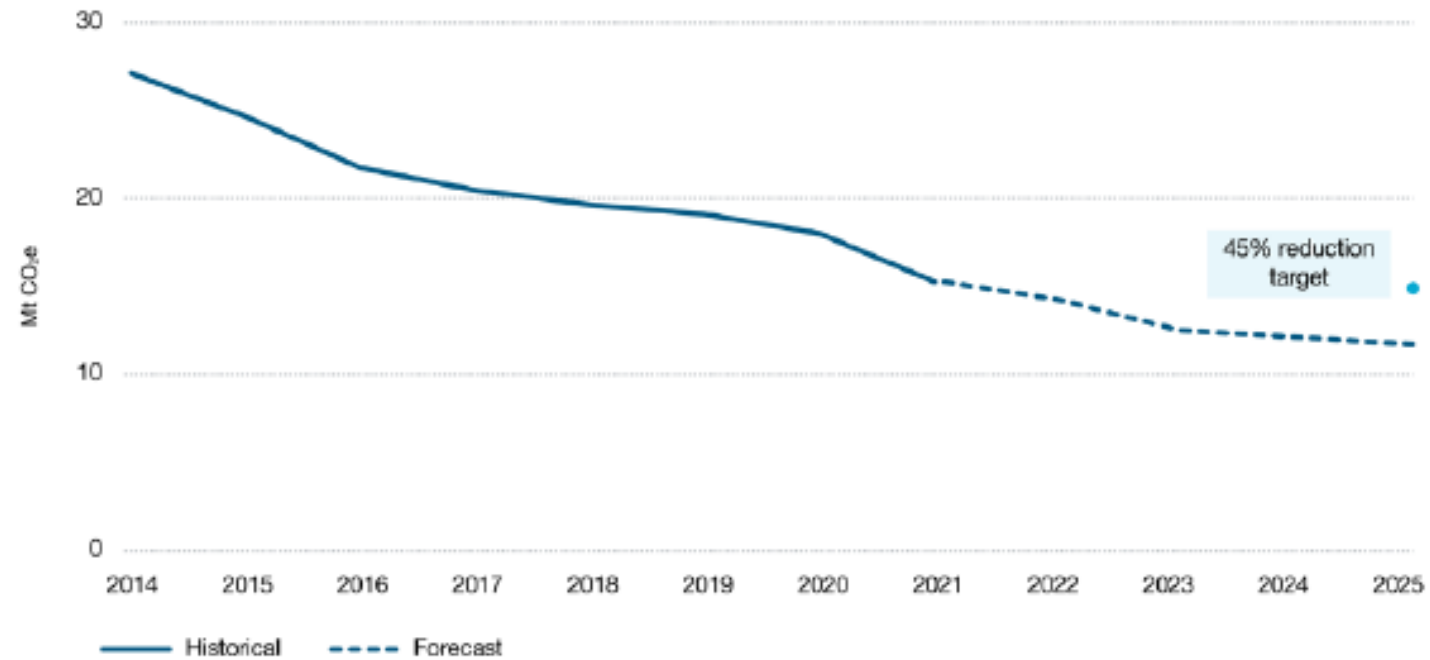


2025



2030

Alberta's 2021 emissions profile



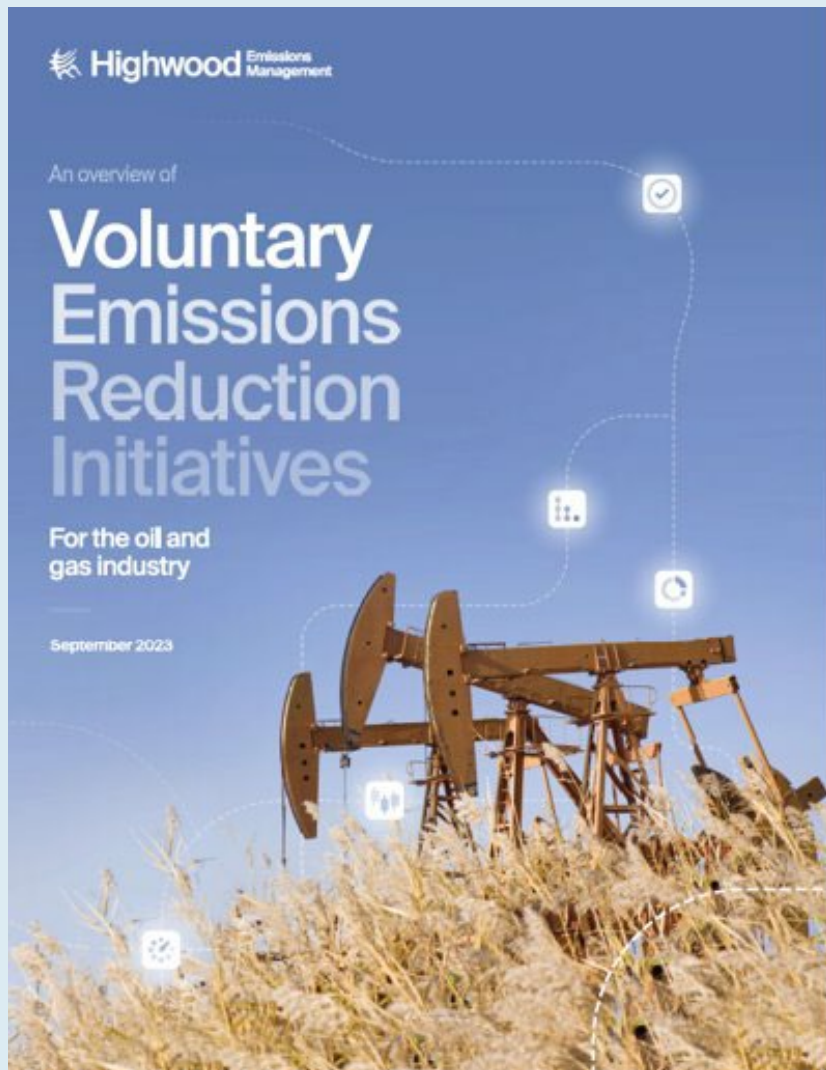
Data source: Alberta Energy Regulator's compliance reporting 2014 to 2021 and estimates to 2025

Alberta's Emissions Progress

- From 2014 to 2021, Alberta's oil and gas sector methane emissions decreased by 44%.
- Carbon offset system incented installation of ~**45,000** low to zero bleed devices prior to the requirements taking force resulting in **over 4 Mt CO₂e** of additional reductions between 2016-2022.
- Funding programs resulted in **17 Mt CO₂e** of cumulative reductions, extensive database of over 20,000 facilities, and development and testing of numerous technologies.
- Alberta has mechanisms in place to enforce its regulatory systems – a compliance ladder ranging from education to penalties/shut in.

Canadian Lead Research Initiatives

BC O&G Methane Emissions Research Collaborative
Petroleum Technology Alliance Canada



Updates

- Full updated analysis of initiatives across the full supply chain, new initiative analysis, participation, and results



Insights & Trends

- O&G, energy transition, and GHG reduction.
- increased emphasis on measurement-based technology
- Interoperability and regulatory alignment
- Easier is not better



Recommendations

- quantification and promotion of benefits
- Better collaboration and streamlining of data requirements
- Increased transparency and independent verification
- O&G should lead and benchmark for other industries



Thank you

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