

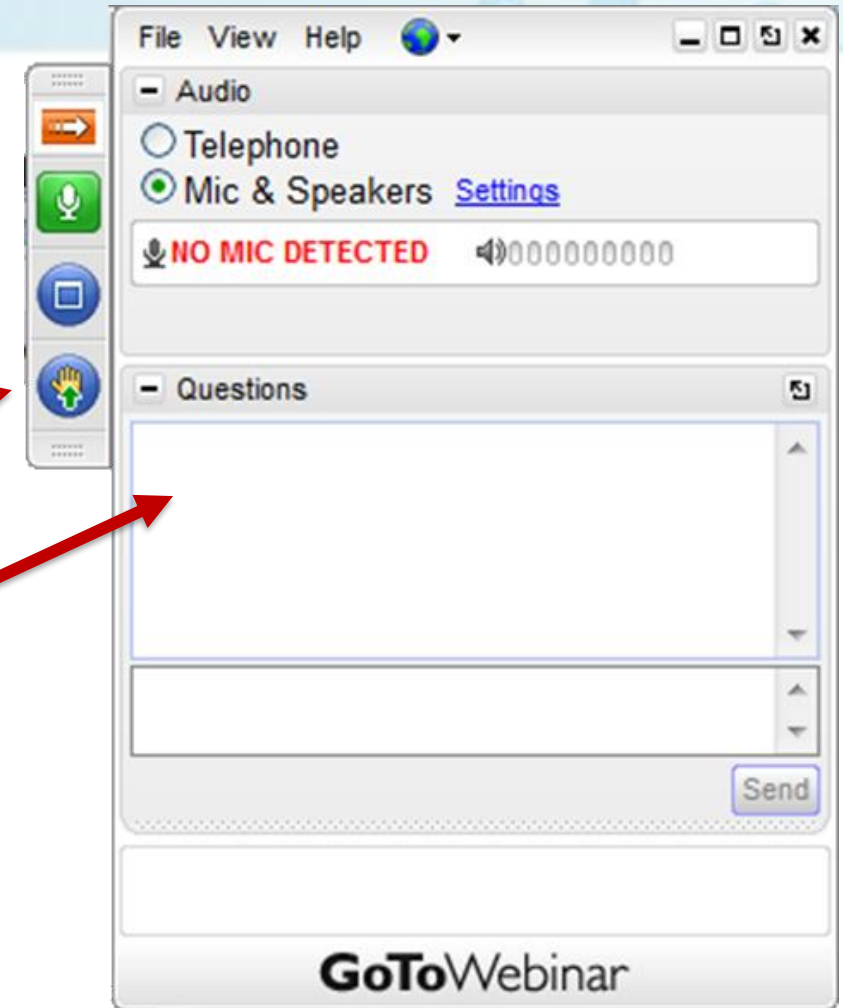
GMI Oil & Gas Subcommittee Webinar

11 September 2019



Webinar Tips

- All attendees (except speakers) are currently in listen-only mode
- To ask a question:
 - “Raise your hand” by clicking the “hand” icon.
 - Questions may be typed in the “Questions Pane.”
- If you are experiencing technical difficulties, please let us know using the Questions pane
- A copy of today's presentation will be available on GMI's website



Agenda

- Welcome
- The Bluesource Methane Reduction Program: An Opportunity to Tackle the Global Oil & Gas Methane Challenge, *Yvan Champagne, Bluesource*
 - Question and Answer
- GMI News and Updates
- Global Methane Challenge Project Spotlight
- Subcommittee News and Upcoming Activities
- Question and Answer / Wrap up

TECHNICAL DISCUSSION

The Bluesource Methane Reduction Program

Yvan Champagne

President, Bluesource Methane

TACKLING THE GLOBAL OIL & GAS METHANE CHALLENGE ONE DEVICE AT A TIME

The Bluesource Methane Program
Case Study in Alberta and Beyond

September 11, 2019

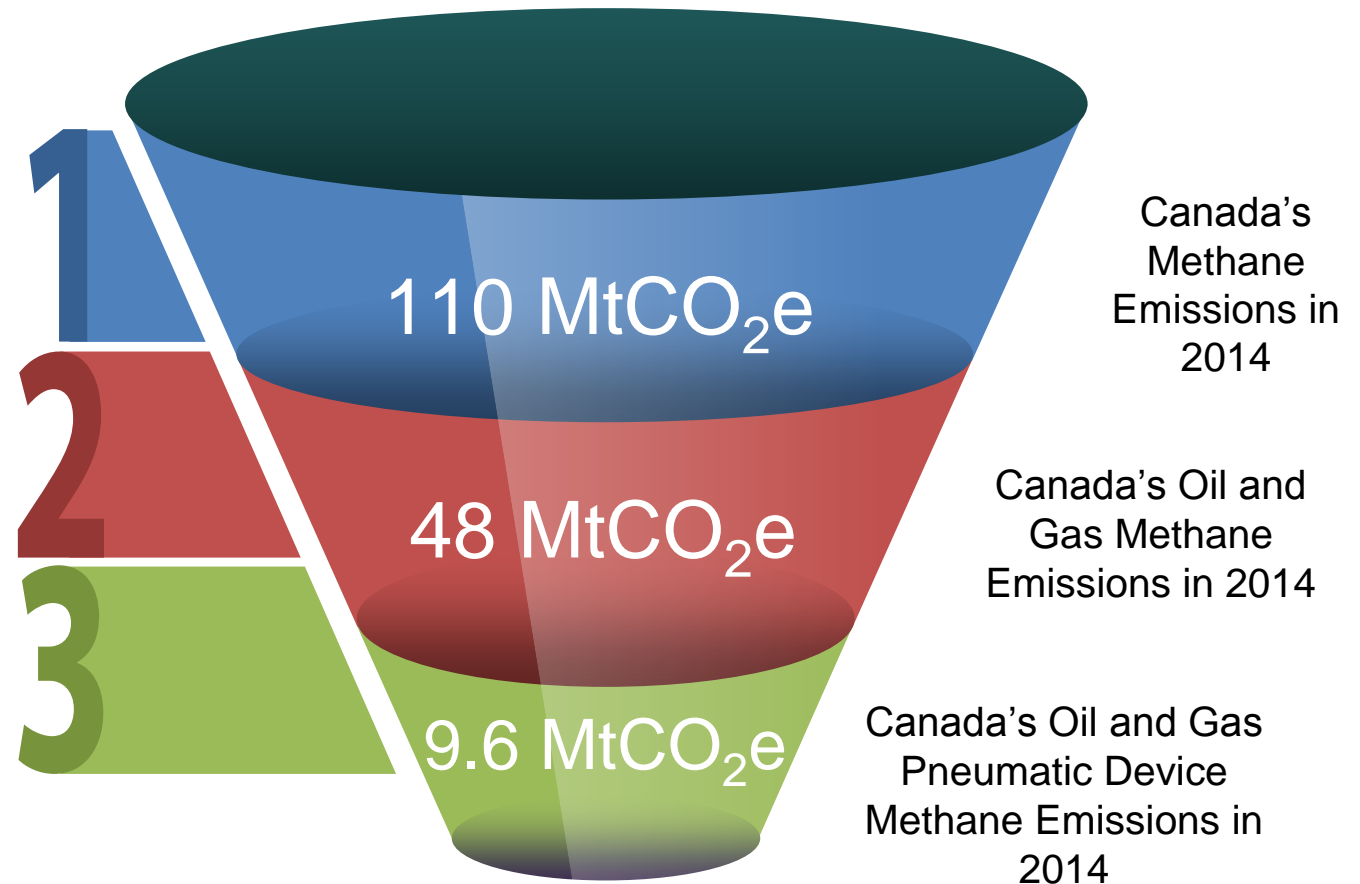
About Bluesource

- One of North America's largest developers and marketers of emission reduction projects
- >40 million tonnes of reductions created and sold since 2001
- Voted Top North American Project Developer for the past 4 years by Environmental Finance
- Our business is identifying opportunities for generating large-scale emission reductions and making them happen
- Calgary, Toronto, Salt Lake City and San Francisco



The Canadian Methane Challenge

- Federal/Alberta goal of 40-45% reduction in methane emissions from oil and gas sector by 2025
- Environment Canada/AER Regulations targeting methane emissions include pneumatic controllers such as level controllers, pressure controllers and transducers



Source: ECCC



What is a Pneumatic Controller and why do they matter?

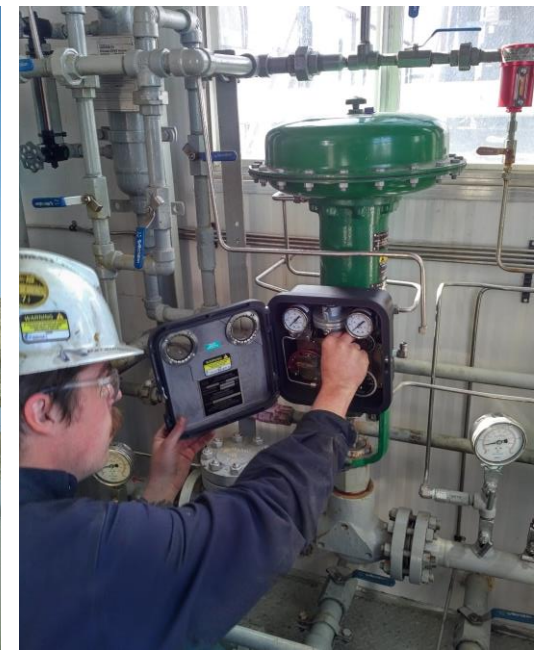
- Control critical safety and operational functions across upstream/midstream oil & gas sector
- Vent by design
- A single gas-driven high-bleed device can emit the same amount of GHG emissions as 10-35 cars
- Newer low-bleed devices vent up to 98% less than old devices



Methane Challenge for Oil & Gas Producers

- High-bleed controllers must be replaced by 2023
- Pneumatic devices are everywhere in the upstream and midstream oil & gas sector
 - estimates of 70,000 to <100,000 in Alberta alone
- Inventorying and replacing devices is complex and capital/labour intensive
- Many producers are financially challenged due to low commodity prices





| 01 | Bluesource Methane Program Overview

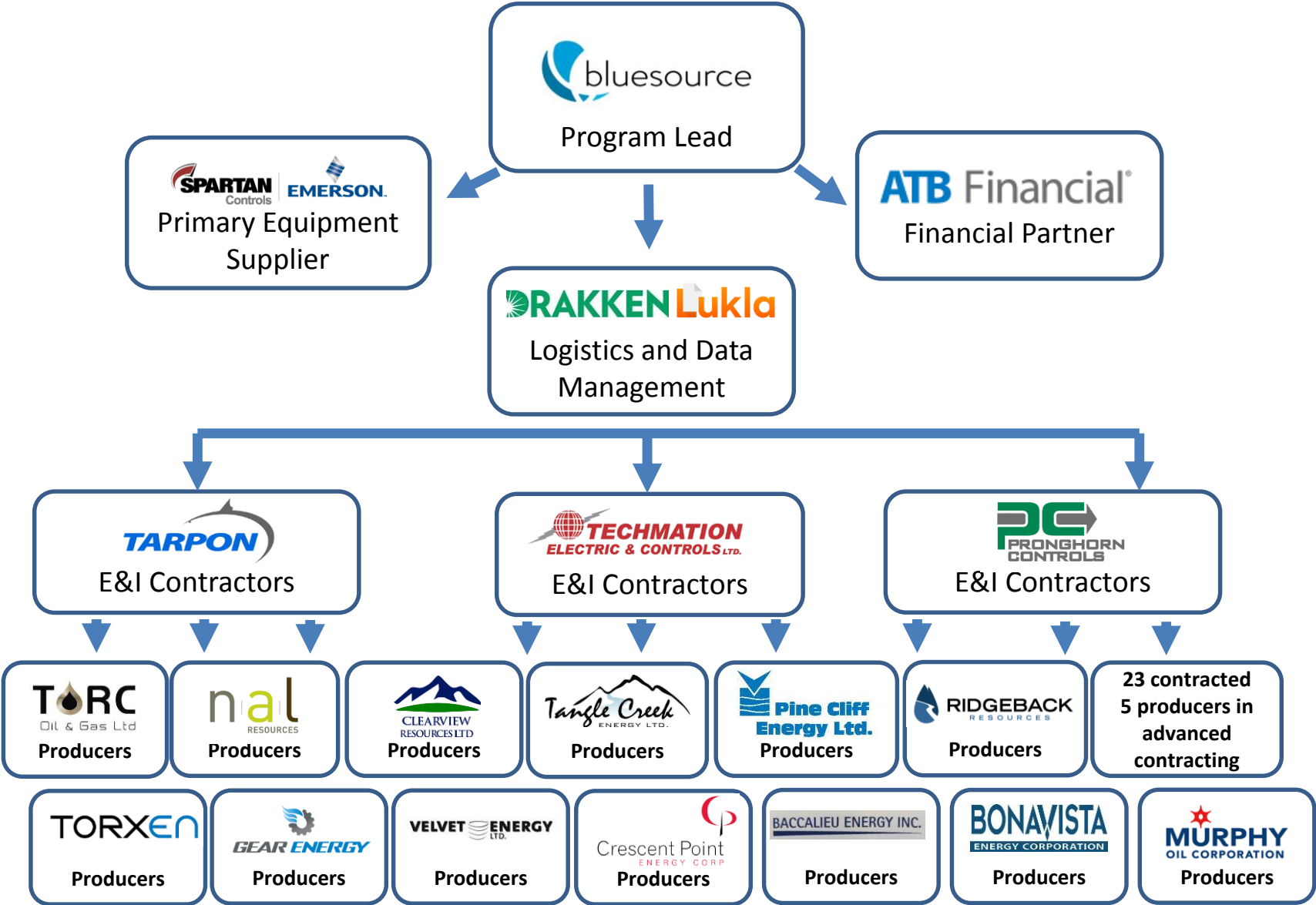


Bluesource Methane Program Solution

- Federal and provincial regulations allow for early-action crediting in advance of the regulation taking effect in 2023
- Alberta compliance market presents opportunity to monetize reductions for limited period of time
- We designed a program to help producers achieve methane regulatory compliance for pneumatic devices that requires no capital expenditure and minimal burden on staff
 - Performing an inventory of pneumatic devices
 - Project management services enabling efficient scheduling, deployment and installation of controllers
 - Logistics and capital cost of controllers
 - Data management costs for tracking and informational requirements (offset creation and reporting purposes)



How we do it



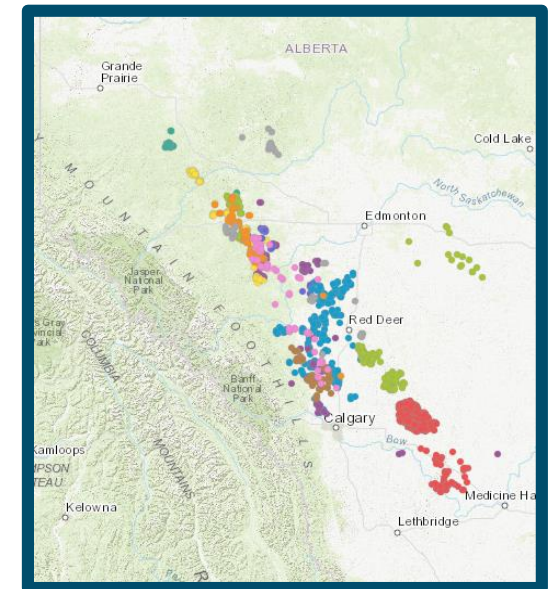
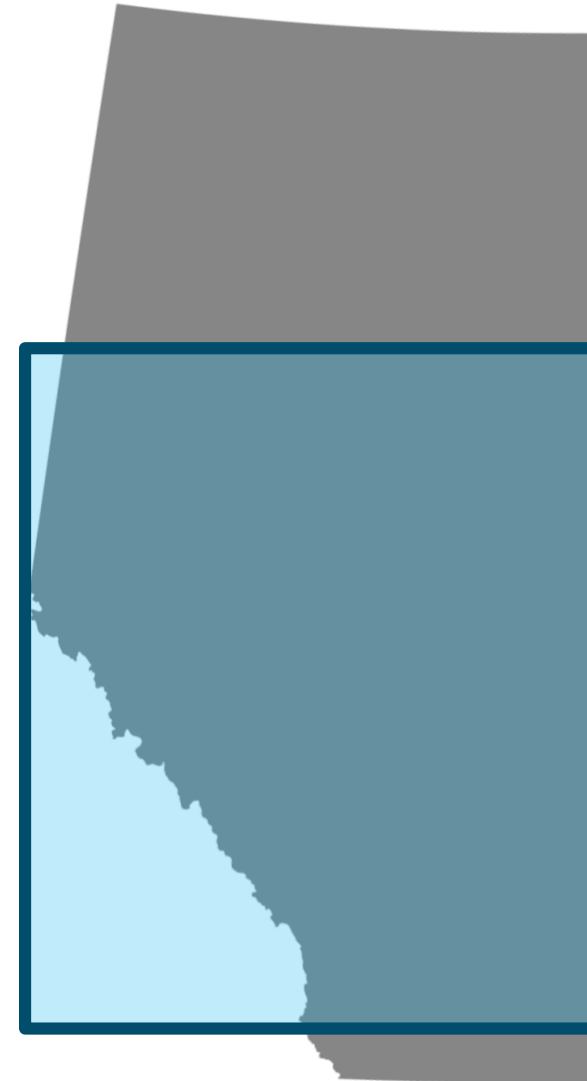
Impact in Alberta

Over the past 21 months, 6,200 devices retrofitted or replaced for 21 oil & gas producers, over 20,000 devices inventoried

Over the next 7 months, we will retrofit or replace another ~4,000 devices

By 2023, ~3 million tonnes CO₂e of GHG reductions, equivalent to taking 384,000-576,000 cars off the road for a year

Conserved enough natural gas to heat 50,000 homes



Key Insights That Are Applicable Globally

1. In jurisdictions with a high concentration of gas-driven pneumatics, pneumatic replacements are one of the fastest and largest opportunities for methane reductions in upstream oil & gas sector
2. Canada has provided a template to the world on how you catalyse and accelerate reductions in this area
 - Combination of defined regulatory timeline (stick) with early-action incentive (carrot)
 - Carbon market and infrastructure to enable carbon finance and project developers to deploy capital and accelerate uptake
 - Third-party finance critical to accelerated deployment in oil & gas sector due to the mismatch in hurdle rates



Our Next Steps

- Our program delivers globally-meaningful emission reductions by tackling small-scale distributed emission sources in a fast
- We are looking to expand our program outside of Canada and we are actively looking for regulator/government partners to explore new markets
- If you are interested in learning more on how to accelerate pneumatic reductions in your jurisdiction, please reach out





Thank You and Questions

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Questions





Global Methane Initiative News and Updates

Monica Shimamura,
Director, GMI Administrative Support Group

GMI News and Updates

- GMI Website Enhancements
 - Home page
 - Sector pages
 - Project Network page
- Project Network
 - Quarterly Newsletter
- New Mailing List
- Social Media:

 [Facebook.com/globalmethane](https://www.facebook.com/globalmethane)

 [Twitter.com/globalmethane](https://twitter.com/globalmethane)

 [Linkedin.com/company/global-methane-initiative-gmi](https://www.linkedin.com/company/global-methane-initiative-gmi)



The screenshot shows the Global Methane Initiative (GMI) website home page. At the top, there is a navigation menu with links for NEWS 1, ABOUT GMI, SECTORS, COMMUNICATION, and EXPLORE. A language selection dropdown is visible in the top right corner. The main header features the GMI logo, which consists of a stylized flame and sun icon, followed by the text "Global Methane Initiative". Below the logo, a paragraph describes GMI as an international public-private partnership focused on reducing barriers to the recovery and use of methane as a clean energy source. To the right of the text is a world map highlighting GMI Partner Countries in orange. Below the map is a link to visit the Partner Country page. A prominent orange banner across the middle of the page reads "Global Methane CHALLENGE" and "It's time to take action!". Below this banner, there are three columns of content: "Methane Matters" with a video player thumbnail, "The Challenge" describing methane's impact on warming, and "The Opportunity" discussing the benefits of methane capture. At the bottom, a dark blue banner announces "New GMI Fact Sheet Available!" with "Download" and "Descargar" buttons.

Global Methane Forum 2020

- 23 – 27 March 2020 in Geneva, Switzerland
- Co-hosted with UNECE
- GMI Meetings:
 - Oil & Gas Subcommittee
 - Coal Mines Subcommittee
 - Biogas Subcommittee
 - Steering Committee
 - Plenary Session
- Capstone event to celebrate the Global Methane Challenge
- Opportunity to participate in the UNECE Group of Experts in Oil and Gas meetings

Recommendations for topics?

Send recommendations to
ASG@Globalmethane.org

More details coming soon!

Global Methane Challenge Spotlight



View the GM Video at:

<https://globalmethane.org/challenge/video/gmc.mp4>

Why Participate in the Challenge?

- Each Challenge participant will be publicly recognized for actions to reduce methane emissions
 - Opportunity to highlight new and ongoing efforts
 - “Challenge” website and GMI social media will showcase actions
 - GMI, CCAC and UNECE events will provide forum for sharing actions
- Challenge participants and actions will be celebrated at the 2020 Global Methane Forum
- Your efforts will help inspire other organizations to take ambitious actions towards methane mitigation
- Challenge submissions will be accepted until the end of the year

Check out submissions and showcase your own actions at globalmethane.org/challenge

GLOBALMETHANE.ORG

HOME

THE CHALLENGE

ACTION MAP

ACTIONS

FAQS

TELL YOUR STORY



Global Methane CHALLENGE

It's time to take action! Join the Global Methane Challenge and showcase your work to reduce methane emissions.

The Global Methane Challenge is open to all public and private-sector actors interested in showcasing their actions to reduce methane emissions. The goal of the challenge is to catalyze ambitious action to reduce methane emissions and showcase policies and technologies being used to reduce methane emissions around the world. [Learn more about the Global Methane Initiative \(GMI\).](#)

The Challenge

The Global Methane Challenge is your chance to tell the world what you are doing to reduce methane emissions. Whether you are ready to make a new commitment or want to highlight an ongoing effort, we want to showcase it here.

Why methane?

- Methane is a powerful greenhouse gas, and emissions are on the rise
- Methane is a short-lived climate pollutant, so reductions made now can have significant short-term benefits
- Cost-effective technologies to capture and use methane are widely available today



GMI Oil & Gas Subcommittee News and Upcoming Events

Oil & Gas Subcommittee News

- New U.S. Oil and Gas Lead:
Denise Mulholland
International Lead, Voluntary Methane Programs, Climate Change Division,
Office of Air and Radiation,
U.S. Environmental Protection Agency (EPA)
- “Identification and Evaluation of GHG Reduction & Energy Efficiency Improvement Opportunities at Oil and Gas Facilities”
 - Draft Final Report is under final EPA review
 - Anticipated completion by the end of the year
- GMI Oil & Gas Subcommittee Meeting:
 - In conjunction with the Global Methane Forum 2020 in March 2020
 - Email recommendations for topics and sessions to ASG@Globalmethane.org

Questions



THANK YOU

Wrap up and adjourn

See you in Geneva in March!