



Methane Emissions Measurement & Mitigation

Strategies, Technologies & Best Management Practices

UN-ECE 5th TFTEI Annual Meeting

23 October 2019
Ottawa, Ontario, CANADA

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Responding to a Low-Carbon Economy

Founded in 2016, the Alliance is comprised of companies serving the oil & natural gas production, processing, and transmission sector. Serves as a hub for businesses that offer innovative and accessible solutions to methane emissions reductions.

The Alliance is a partner to government, industry, and other key stakeholders, focused on building a clean economy and generating new jobs. We collaborate with Federal and provincial governments & regulators to design policies and regulatory mechanisms that support the deployment of readily available technologies and the deployments of emerging technologies.

MELA works to build comprehensive methane emissions management plans. We believe that efficient and effective outcomes can be achieved through strong partnerships.

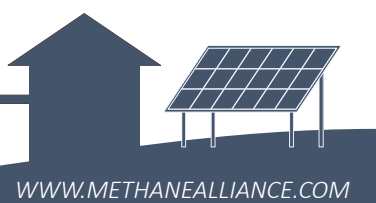
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Our Mission

North America's most complete source of data, technologies and solution providers that monitor, measure, and reduce methane emissions from oil and gas operations.



Our Members:



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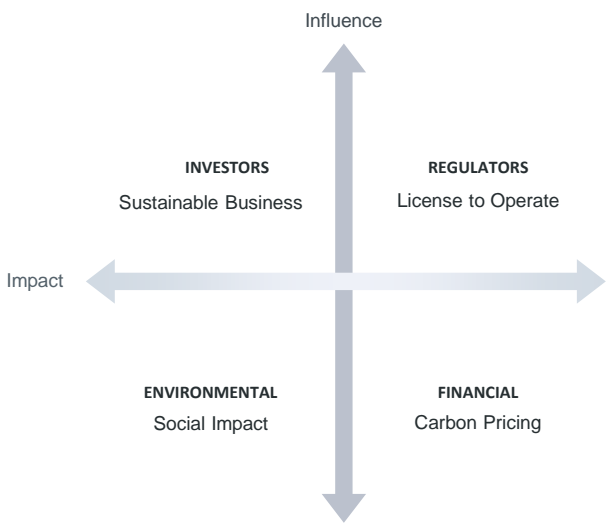
Global Opportunity. Local Expertise.

The Canadian oil and gas industry has been leading the world in carbon emissions reduction activities as a result of robust regulations and strong environmental management practices. Other producing jurisdictions are developing methane and carbon emissions regulations in line with those recently developed in North America. These emerging markets are expected to develop over the coming years.



- Canada U.S.A
- Mexico Columbia
- Argentina Peru
- UK Norway
- Oman Russia
- Saudi Arabia Australia

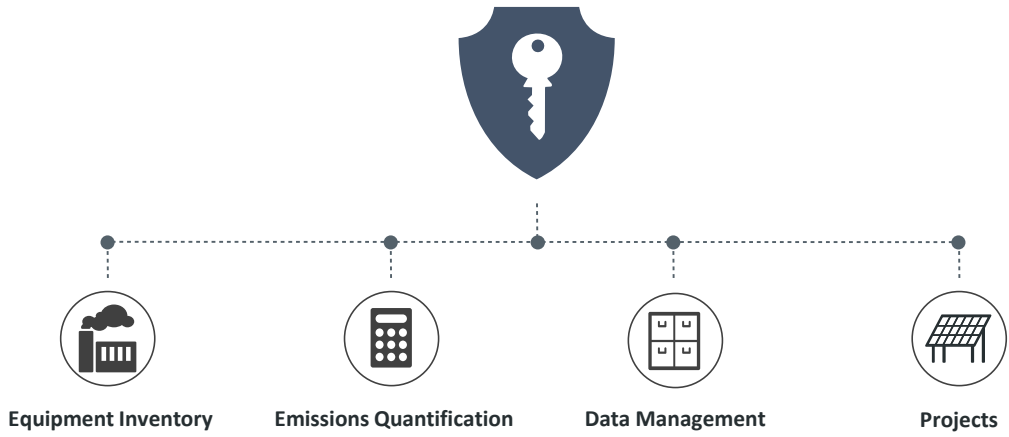
➤ Market Creation





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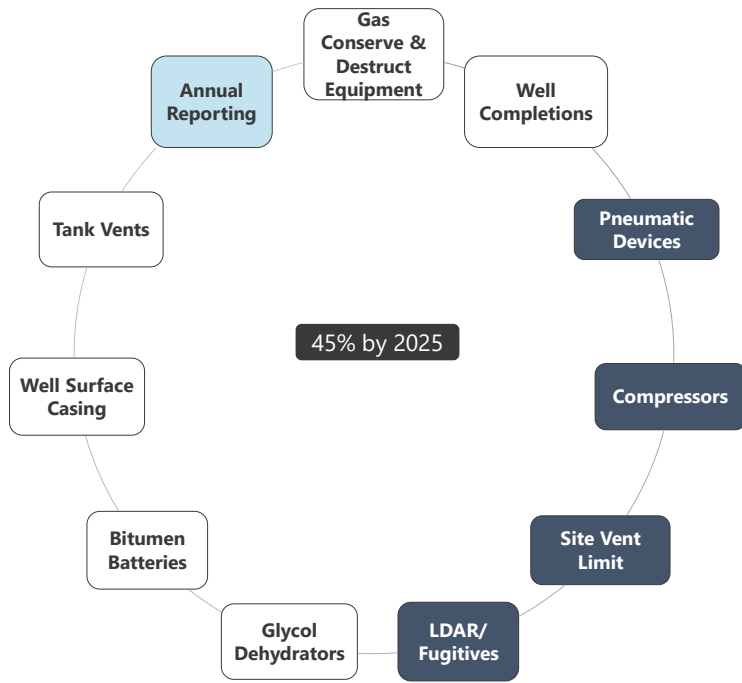
➤ Strategies & Solutions



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➤ Priorities



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➤ MELA Compliance Coverage

01

Analysis & Compliance

Planning, Systems, Measurement & Reporting

02

Clean Combustion

Combustors, Power Generation

03

Compressors

Vent Gas Capture, Seals

04

Fugitive Emissions

Leak Detection & Repair

05

Glycol Dehydrators

Data Management Platforms

06

Pneumatic Devices & Pumps

Solar, Retrofits, Measurement

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► MELA Compliance Coverage

01

Analysis & Compliance

Altus, Calscan, CNTRAL, Envirosoft, Envirotech, Greenpath, Modern West, Process Ecology, SRC, Sysene

02

Clean Combustion

Black Gold Rush, Gentherm, PTW Roska, Simark Controls, Total Combustion

03

Compressors

John Crane, Process Ecology, Spartan

04

Fugitive Emissions

FLIR, Eosense, GHGSat, Greenpath, Kairos, MultiSensor, Surface Solutions, Target

05

Glycol Dehydrators

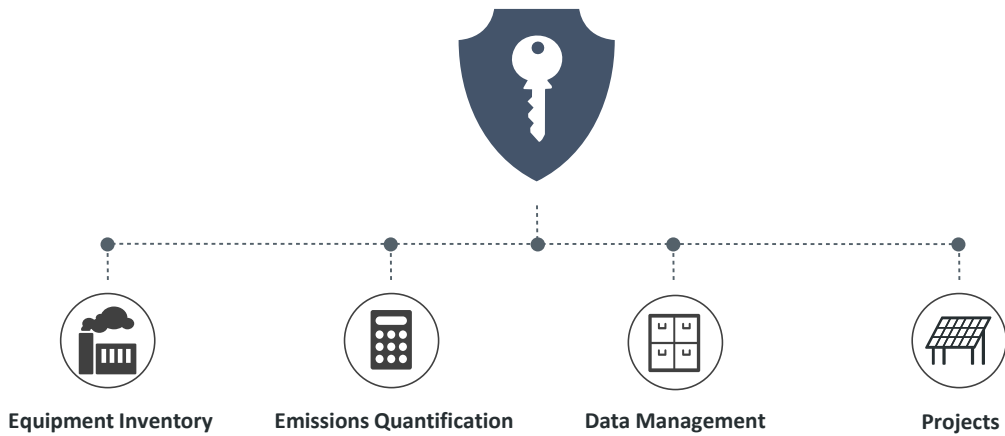
Envirosoft, Envirotech, Process, Spartan

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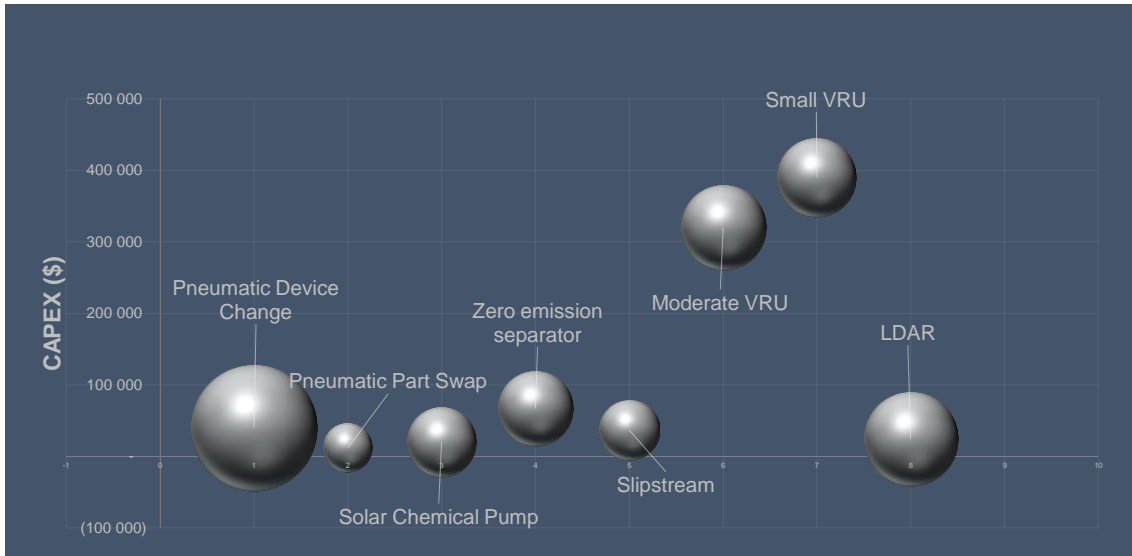
Pneumatic Devices & Pumps

Airtek, Calscan, Caron, Crossroad, PTW, Roska, Simark, Sirius, Spartan, TriCore

► Strategies & Solutions



High-Impact Solutions



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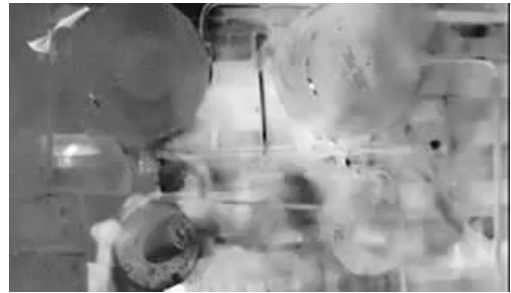
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High-Impact Solutions



Zero Emission Separators

Vapour Combustor



Hawk Vent Gas Meter



Solar Powered Linear Actuator









Slipstream

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➤ Strategies & Solutions

 <p>Design New Facilities</p> <p>Low-Emissions well-site design includes solar chemical injection pumps and instrument air. Cost efficiencies.</p>	 <p>Cost Efficiency Future Compliance</p> <p>Evaluate economics under consideration of future cost of regulatory compliance and risk mitigation.</p>	 <p>Reporting Data Management</p> <p>Use stakeholder reporting requirements as a guide to pre-compliance action and implementation.</p>
 <p>Revenue Carbon Offsets</p> <p>Pursue carbon offsets to generate annual revenue and use as guide for compliance planning.</p>	 <p>Habits Internal Knowledge</p> <p>Support employee engagement & build long-term habits regarding carbon management.</p>	 <p>Performance Investor Confidence</p> <p>Build a resilient, sustainable business strategy that supports the ongoing growth of our industry.</p>

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➤ Performance To Date

 <p>EEA Program LDAR Inspections</p> <p>2,500+ sites inspected. Offsets opportunities identified. Improved provincial inventory.</p>	 <p>High to Low I Common Conversion</p> <p>Switch out Fisher 4150 (pressure controller) to C1 device. \$1,500CAD; 120 tonnes CO₂e/y</p>	 <p>High to Low II Low-cost Conversion</p> <p>Relay change on L2 level controller. \$500CAD; 50 tonnes CO₂e/y</p>
 <p>High to No System Conversions</p> <p>Zero emission separator package, solar chemical injection pumps and instrument air conversions.</p>	 <p>Opportunity Carbon Offsets</p> <p>Revenue generating projects minimize future cost of compliance.</p>	 <p>Performance Ongoing Studies</p> <p>Emission rates; field inventories; actuation frequency; data collection; emerging technologies (i.e.: fuel cell)</p>

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Questions

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Methane Emissions Leadership Alliance

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