

# CLEAN ENERGY

## ADVANCED HYDROCARBONS

CLEANER HYDROCARBON PRODUCTION – METHANE EMISSION REDUCTION

### FUNDING DETAILS

## Systematic Third-party Validation of Environmental and Economic Performance of Methane Reduction Technologies (STV)

STV is a two-year project by a broad partnership of Alberta operators, government regulators and policymakers, and innovators with PTAC as a neutral third-party facilitator to generate field-based performance validations in Alberta for a cohort of methane reduction technologies, thus providing operators with information to confidently purchase equipment at scale and benefiting Alberta innovators with local market growth and a launch pad for exports.



**RECIPIENT:**  
PTAC –Petroleum  
Technology  
Alliance Canada



**PARTNERS:**  
Alberta Upstream  
Petroleum  
Research Fund



**TOTAL BUDGET:**  
\$1,965,000



**AI FUNDING:**  
\$540,000



**PROJECT DATES:**  
March 2020 –  
April 2022



**PROJECT TRL:**  
Start: 7  
End: 9

Natural Gas to Instrument Air / Electric Conversion



- Both Control Boards fit into Existing RTU Cabinet
- Power Consumption of Compressor = 0.79 amps @ 24VDC or one CFL Light Bulb
- Power Consumption of Chemical Pump = 0.2 amps @ 24VDC or one LED Light Bulb



## APPLICATION

The critical and most impactful end-user category is oil and gas operators that will need to purchase hundreds if not tens of thousands of new equipment. The second important end-user category is government policymakers and regulators who need neutral factual information to develop the best possible regulatory instruments. Emissions of methane and CO2 are regulated. The technologies tested in this proposal are tools and methods that will allow end-users to comply with current and proposed regulations.



ALBERTA INNOVATES

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### CLEANER HYDROCARBON PRODUCTION – METHANE EMISSION REDUCTION

#### PROJECT GOALS

- To remove a critical barrier to reducing methane emissions while at the same time returning the oil and gas sector to be the economically strong engine that provides high-quality employment in Alberta regions.
- The critical barrier is a knowledge gap about cost-effective, high quality equipment that reduces methane emissions.
- To provide neutral, third-party information about the in-use cost and performance of methane emissions reduction equipment, which information is currently lacking. This will allow end-users to gain confidence about future costs and performance and to purchase methane emissions reduction equipment and services for wide scale deployment.
- To open the door for revenue growth of Alberta innovators and provide them with the opportunity to champion and market technologies that are STV-proven in Canada and internationally, thereby diversifying Alberta’s economy by creating equipment manufacturing employment.

#### BENEFITS TO ALBERTA

- STV will unlock manufacturing and market growth opportunities for Alberta innovators and SMEs.
- After the thorough vetting performed by neutral validation, and subsequent dissemination and adoption in industry best practices, SMEs may achieve large-scale commercialization in Canada and internationally for their clean technologies.
- STV will facilitate and accelerate the cost-effective reduction of methane emissions and allow the industry to positively respond to these expectations, contribute to returning the oil and gas sector to an economically strong engine that provides high-quality employment in Alberta regions.



5 Publications



1 - 10 Project Jobs



70 Students Trained



26 New Products



101 - 1000 Future Jobs



55,000 kT/yr Future GHGs Reduced

#### CURRENT STATUS

#### November 2020

This project was initiated in March 2020. Plans for the first phase of technology deployment are underway with installation planned for Q1-2021.