OIL & GAS
TAQA North
Well Site Emission Reductions Program
Calgary, Alberta, Canada

OVERVIEW OF OIL & GAS PROJECT:

NAME OF COMPANY: TAQA North Ltd.

LOCATION: North East British Columbia

RELEVANT SECTOR OF THE OIL AND NAUTRAL GAS INDUSTRY: Production

THE METHANE EMISSION REDUCTION OPPORTUNITY, INCLUDING:

- Gas-driven pumps, high bleed gas-driven pneumatic controllers.
- Low bleed gas-driven controllers, solar chemical pumps, gas-driven pumps modified to not emit to atmosphere (Linc Pump Solution).
- The conserved natural gas is produced to pipeline.

ESTIMATED ANNUAL EMISSION REDUCTIONS:1,686,000 m^3 / 22,600 t CO_2e per year

PROJECT DETAILS

- Approx. reduction from pump conversion is 20,000 t CO_2e/year
- Approx. reduction from controllers is 2,600 t CO_2e/year

CO_2e values will be verified as part of the sale of emission reductions to Pacific Carbon Trust.

TAQA is working with the Prasino Group and Cap-Op Energy to develop the carbon offset component of this project.

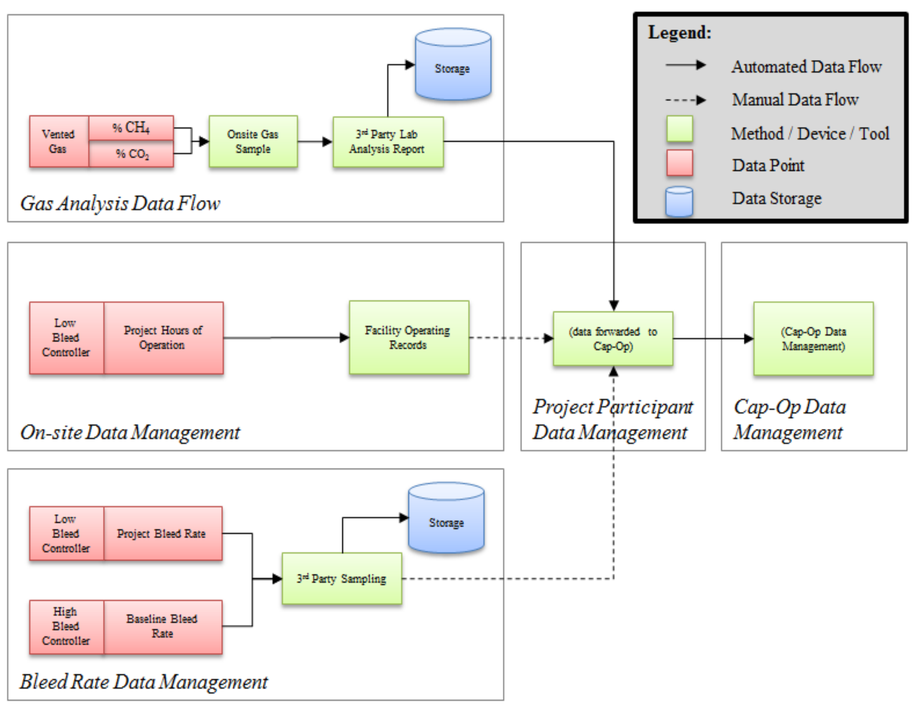
Data from TAQA will be aggregated with other operators to produce a better understanding of emissions from these activities.

Without the sale of aggregated carbon offsets to Pacific Carbon Trust the project would not be viable.

PROJECT DEVELOPMENT PLAN

- Device inventory was undertaken in Jan to Nov 2012.
- Project started implementation in Q4 2012 and will continue through 2013 & 2014.
- Engage GreenPath Energy for data measurement.

Data Flow Map for Carbon Offset Project



Solar Chemical Pump

DISCLAIMER: The information and predictions contained within this poster are based on the data provided by the site owners and operators. The Global Methane Initiative cannot take responsibility for the accuracy of this data.

PROPOSED TECHNOLOGIES

C1 Controller

i2P Low Bleed Controller

PROJECT CHALLENGES

Operators are often unfamiliar with technologies that reduce vent gas or fuel gas and have little motivation to switch from reliable technologies. The installation of new technologies often increases operational complexity and adds measurement and data management burdens without tangible benefits to the operator.

Oil and gas operations have often complicated ownership structures. Any costs or benefits related to energy efficiency projects must be split out among the different working interests, which can greatly reduce the incentive for companies to implement small projects given the challenges of getting buy-in from multiple parties.

ECONOMIC ANALYSIS/BENEFITS

With the provision of carbon offsets the project meets industry rate of return expectations. The transaction costs of a carbon offset project are greatly reduced via the Cap-op data platform. Without the Cap-op data platform the costs of validation and verification would have made this small-scale project infeasible.

PROJECT FINANCES

- Project capital costs: Capital costs are currently uncertain as the project is not fully implemented, the project will entail the replacement of 110 gas driven pumps with solar chemical pumps and non emitting pumps and the modification of 55 gas driven controllers with low bleed mizer kits.

- Projected operation and maintenance costs for fully implemented project: minimal maintenance costs.

FOR MORE INFORMATION:

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