

Accelerating Upstream Energy Efficiency Projects with the Cap-Op Energy DEEP Platform



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The Upstream Oil and Gas Energy Efficiency Opportunity is Large

GHG Emitting Equipment	Total Alberta Equipment Count	Estimated Eligible Alberta Equipment Count	GHG Efficient Alternatives	Average GHG Emissions Reduction	Estimated Total GHG Reduction Potential (over 10 years)
High-bleed instruments	369,067	115,000	Low-bleed instruments	40 tCO ₂ e/yr	46,000,000 tCO ₂ e
Pneumatic Pumps	172,302	150,000	Low/No-bleed pumps	75 tCO ₂ e/yr	112,500,000 tCO ₂ e
Vent gas (Compressor Stations and Gas Plants)	6,017	166	Instrument gas to instrument air	2,000 tCO ₂ e/yr	3,320,000 tCO ₂ e
Vent gas (Engines)	31,968	10,000	Vent gas capture	1,000 tCO ₂ e/yr	100,000,000 tCO ₂ e
Natural gas combustion engines	31,968	5,590	Air-fuel ratio controllers	600 tCO ₂ e/yr	33,540,000 tCO ₂ e
Total					295 million tCO₂e

Source: Alberta's Upstream Oil & Gas Assets Inventory Project – Opportunities to Reduce GHG Emissions. 2013.

Funded by: AI-EES and PTAC

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GHG Offsets Are The Key To EE Project Viability

Pneumatic Controller Conversion Project Financial Analysis (BC)

ROR with offset revenue	ROR without offset revenue
38.5%	0.5%

The Cap-Op Mission

Accelerate the development, tracking, and finance of distributed energy efficiency projects through automation and aggregation.

- Standardize data capture and management
- Report on key performance metrics
- Provide certainty around financial return, incl. carbon
- Reduce the cost and risk of GHG offset capture

Secure the full economic and environmental benefits with DEEPP.

DEEPP Baseline Value: Generate Offsets Reliably to Improve Project Economics

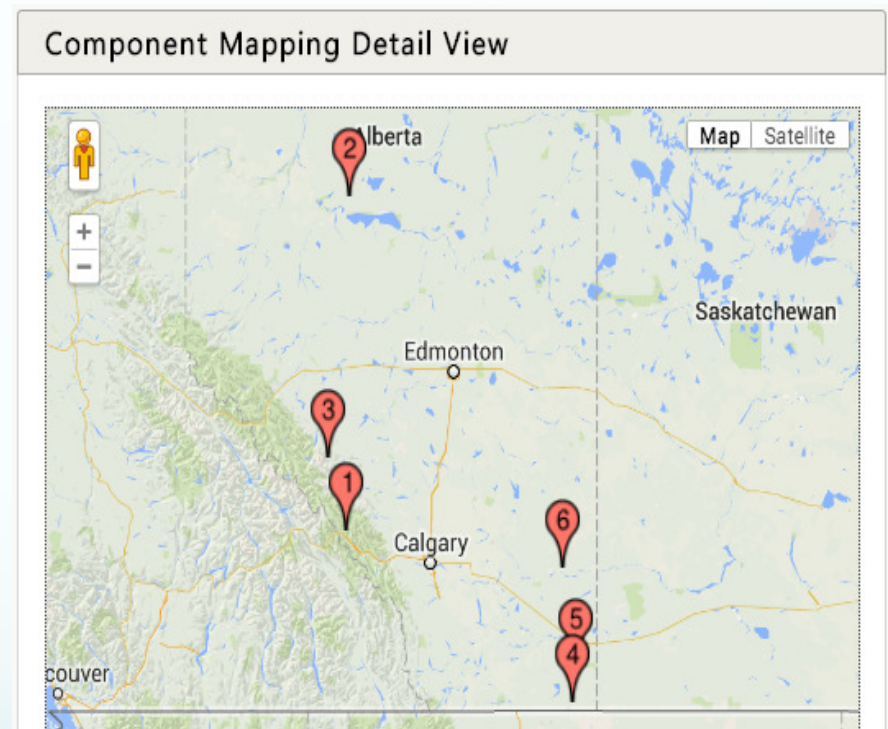
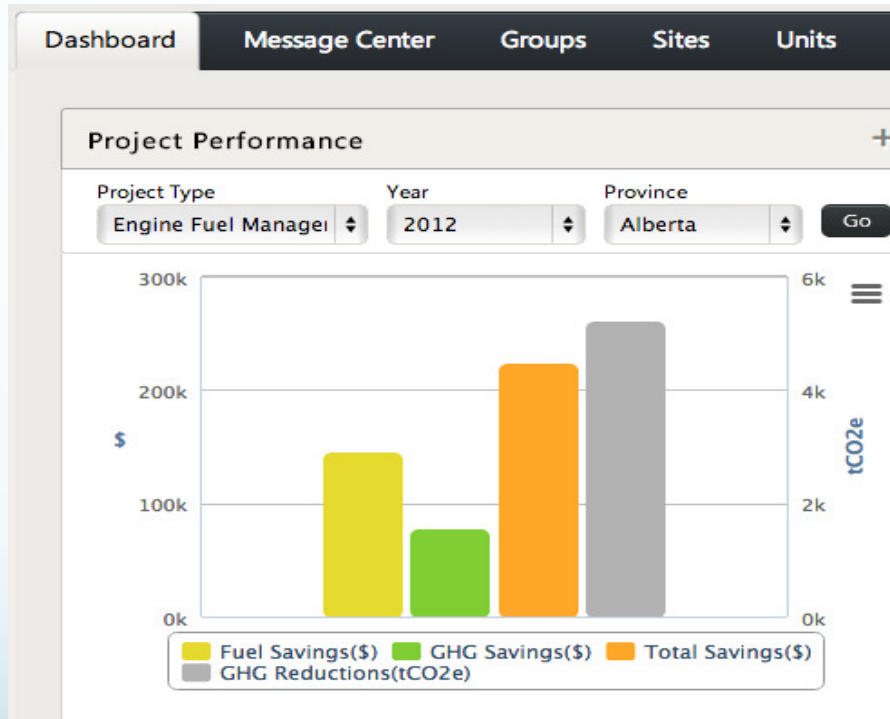
First 18,000 tonnes of aggregated CO2e offsets verified and serialized in Alberta from REMView Air Fuel Ratio Controllers and SlipStreams.

Cap-Op opened the first aggregation project in B.C. for Pneumatic Device Upgrades.



Quickly Monitor Distributed EE Portfolio Performance with the DEEPP

Distributed Energy Efficiency Project Platform



- Live Dashboard

DEEPP Value Add: Analytics

- The DEEPP enables comparison of project performance across internal assets as well as industry benchmarking to maximize efficiency.

The Cap-Op DEEPP

**Accelerates the development, tracking,
and finance of distributed energy efficiency
projects through automation and
aggregation.**

**Offsets
Made
Easy**

Thank You

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