

PROCESS ECOLOGY

Engineering for a sustainable oil & gas industry



MEAdvisorTM
methaneadvisor.com

Manage flaring, venting and methane emissions
from upstream oil & gas operations.

Company-wide, consistent and accurate
quantification and management of
methane emissions.

MeAdvisor builds on rigorous engineering methods
and facility-specific information to reveal actual
methane emissions profiles for each source and
enable the identification of optimization opportunities.

A powerful web-based system for accurate estimation and reporting

Carbon Risk Management



Demonstrate accurate GHG emissions tracking and company wide best practices. Improve Sustainability Reporting and investor confidence.

Ensure Compliance



Simplify data gathering from the field. Facilitate accurate tracking of emissions. Meet the most stringent regulatory requirements for air emissions estimation.

Profitable Operations



Identify the best opportunities for plant optimization and operating cost reductions. Maximize the value from simulation efforts.

Engineering Support



Benefit from Process Ecology's highly qualified process engineers to interpret data to detect design and operational optimization for sustainability.

MeAdvisor™ CASE STUDY – OIL & GAS PRODUCER REDUCES EMISSIONS

In this example, 5 typical oil & gas facilities recorded flared and vented emissions for a year using MeAdvisor™

The data showed where significant changes could be made to reduce flared, vented and GHG emissions.

The second year of data shows significant improvement.

1 Compressor Station 1 & 2

Venting	Flaring	GHG Emissions
673 → 101	1.4 → 306.9	11,262 → 2,813
E ³ m ³ /year	E ³ m ³ /year	tonne/year CO ₂ e

Achieved by:

- Decreasing Compressor Starts
- Reducing TEG Dehy Circulation
- Installing a Flare for Facility
- Sending TEG vent and Blowdowns to Flare

2 Oil Batteries 1 & 2

Venting	Flaring	GHG Emissions
1549 → 182	1273 → 2101	29,305 → 10,019
E ³ m ³ /year	E ³ m ³ /year	tonne/year CO ₂ e

Achieved by:

- Reducing PVRV Releases (ops, maintenance, design)
- Sending all tank vents and PVRVs to flare

3 50 MMSCFD Gas Plant

Venting	Flaring	GHG Emissions
149 → 74	433 → 276	3076 → 2,019
E ³ m ³ /year	E ³ m ³ /year	tonne/year CO ₂ e

Achieved by:

- Decreasing Blowdowns
- Reducing EG Refrig Circulation Rate
- Reducing tank emissions by installing a new tank and sending all tank vents and PVRV's to flare.

4 Company Wide Emissions

Venting	Flaring	GHG Emissions
2367 → 357	1707 → 2684	43,646 → 14,852
E ³ m ³ /year	E ³ m ³ /year	tonne/year CO ₂ e

\$873k to \$297k at \$20/tonne

SAVINGS: \$576k in one year

Achieved by:

- Recording all Non-Routine Events
- Accurately calculating Continuous Sources of emissions
- Focused capital and operating spending to reduce emissions where it makes the most sense.

