

The New Era of Energy: Cleaner By Demand

September 13, 2022
Liz Arthur



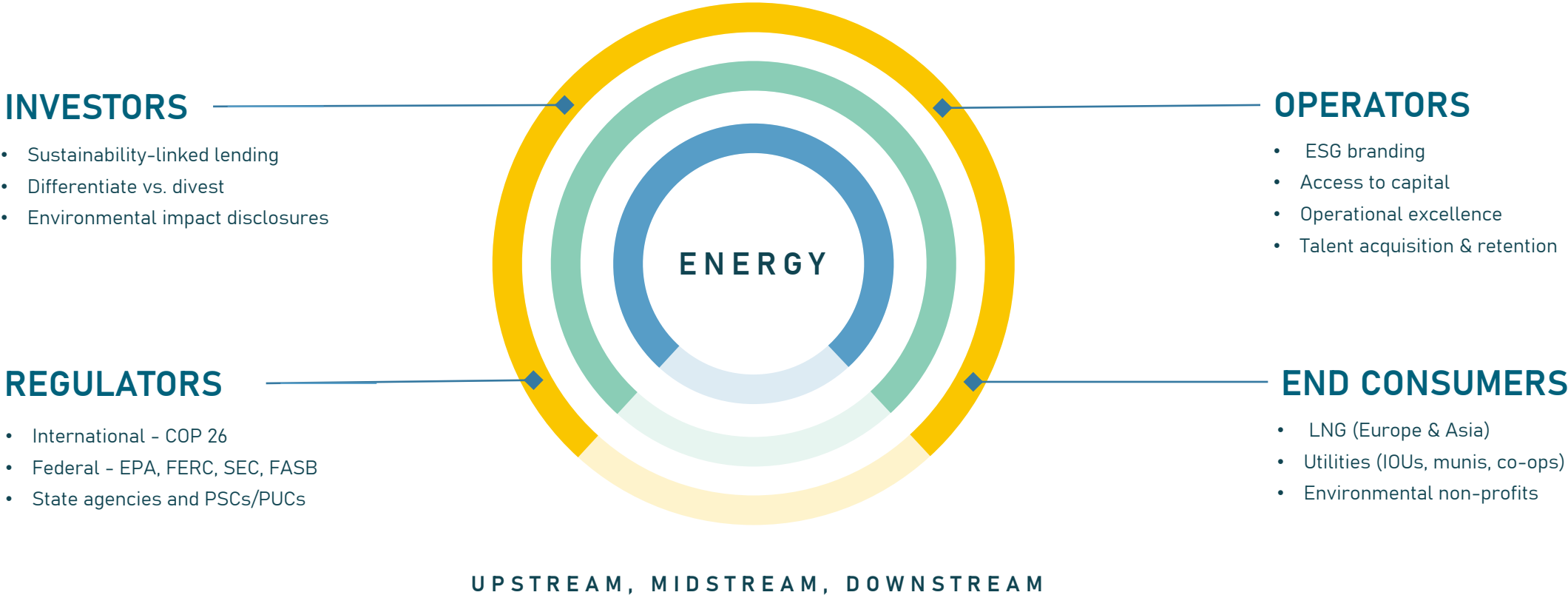


Key Themes

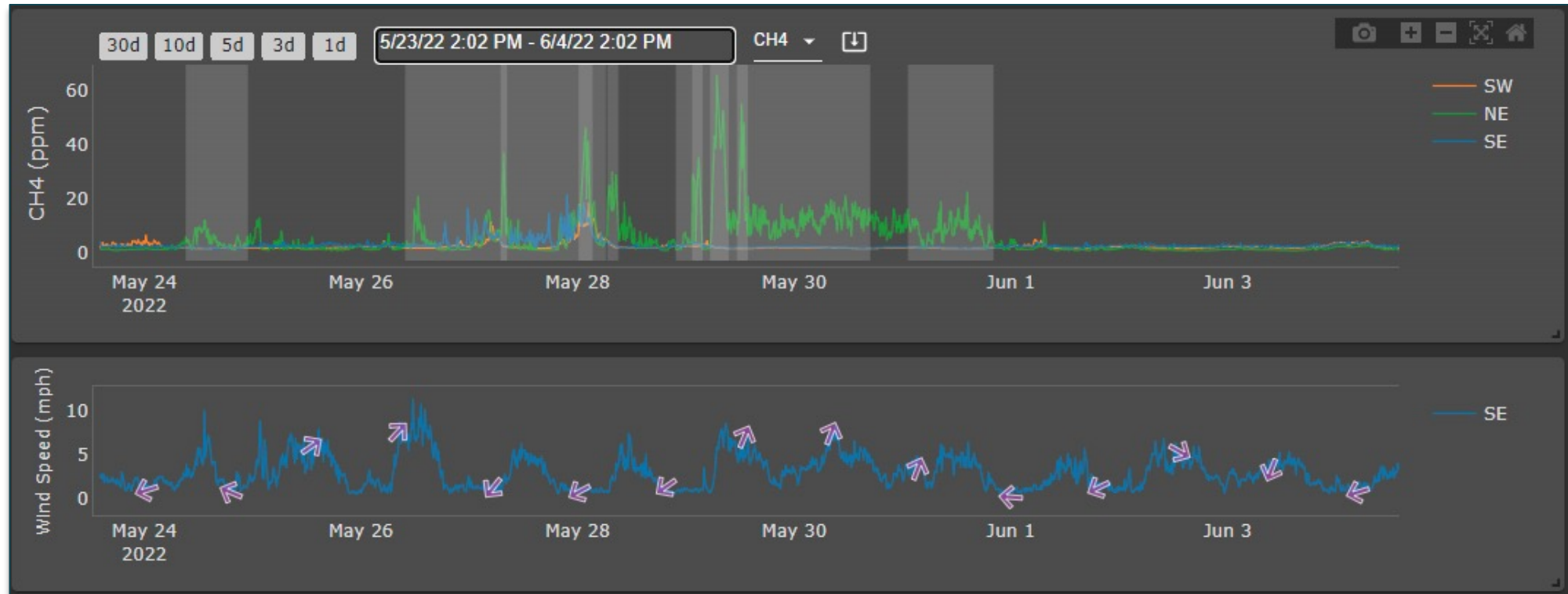
- 01 Evolution in Emissions Monitoring
- 02 Midstream Carbon Intensity Scoring
- 03 RSG Insights

ESG Is Being Operationalized

The Natural Gas Industry Is Under Tremendous Pressure To Disclose and Prove Emissions Reductions

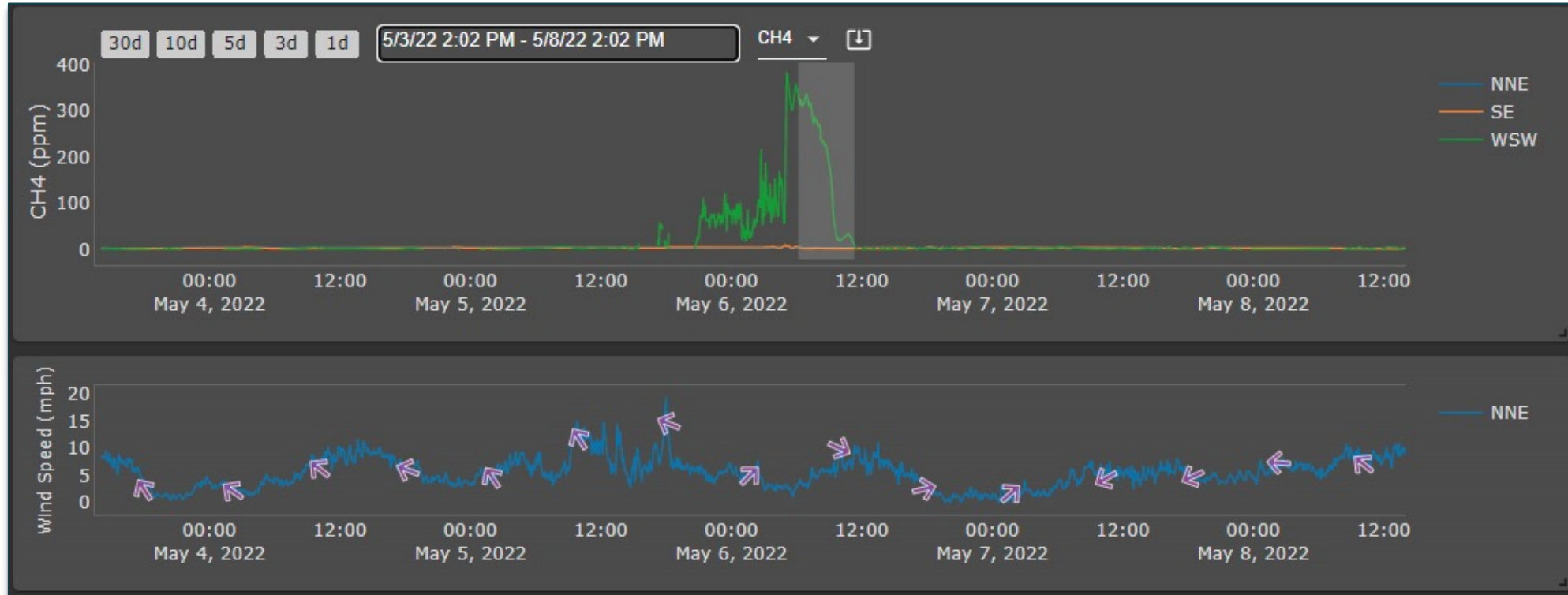


Emissions Management 1.0: Onsite Leak



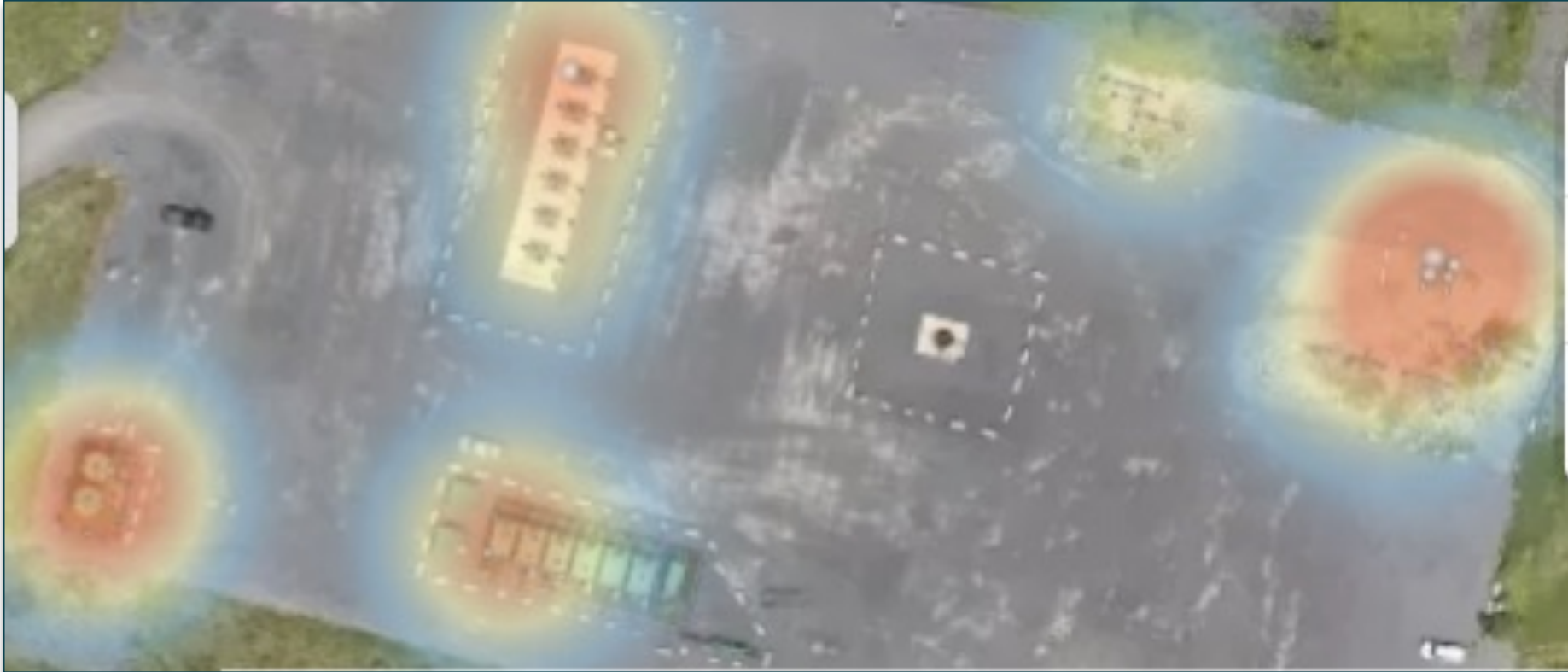
- Smart Alerts indicated a methane leak
- Operator analyzed wind and emissions data to source to a cooler line and verified using an OGI camera
- Operator used the persistent alert to track the maintenance team and identify when the leak was fixed

Emissions Management 1.0: Offsite Emissions



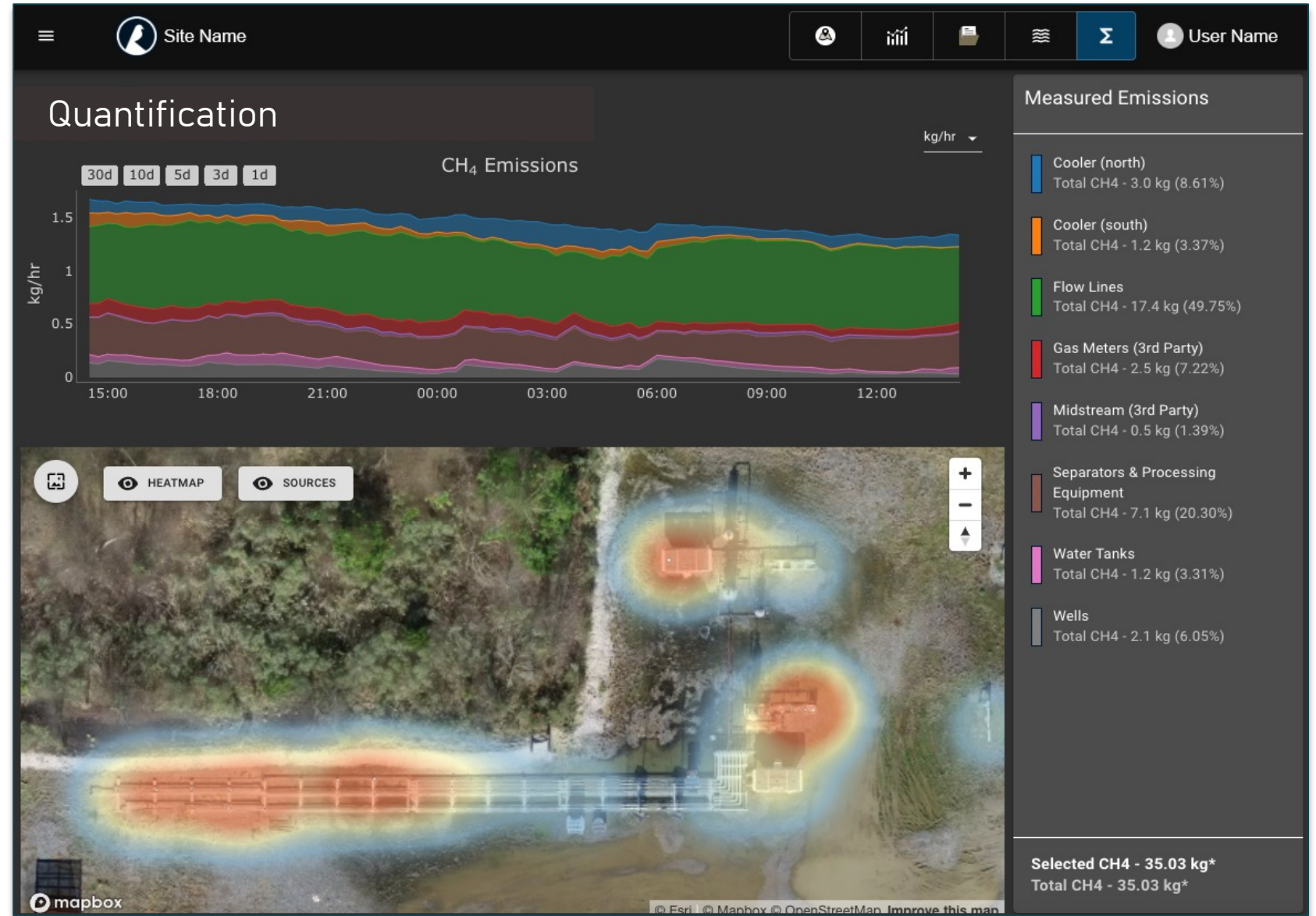
- Smart Alert was triggered by a fugitive emissions event; wind and emissions data analysis suggested offsite source
- Operator used OGI technology to validate emissions due to a nearby operator
- Operator alerted neighboring operation and changed Smart Alert settings to ignore offsite emissions from that pad

Total Site Emissions 2.0: Automate Analysis to Alert the Exact Location



- **Accurate** emissions profiling for every wellbore/facility assessed
- **Actionable** data to set baselines and prove abatement

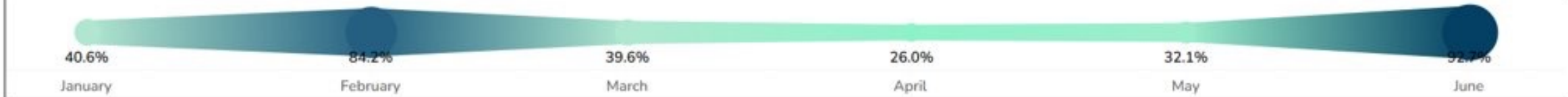
Total Site Emissions 2.0: Hourly Mass-Value Emissions by Equipment



Emissions Data Trends and Insights 2.0

Emissions Volatility Indicator (EVI)

Large EVI indicates a period with a high degree of emissions spike events



Weekly Average CH4 Emissions

Device Position	12/26/21	1/2/22	1/9/22	1/16/22	1/23/22	1/30/22	2/6/22	2/13/22	2/20/22	2/27/22	3/6/22	3/13/22	3/20/22	3/27/22	4/3/22	4/10/22	4/17/22	4/24/22	5/1/22	5/8/22	5/15/22	5/22/22	5/29/22	6/5/22	6/12/22	6/19/22	6/26/22
E	1.8	2.0	1.9	1.9	2.0	1.7	2.2	1.9	2.1	2.2	2.2	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.7	1.6	1.8	1.7	1.9	1.8	1.8	1.8	1.8
NE	3.1	2.0	2.1	2.0	1.8	1.7	2.0	1.8	1.9	1.9	2.0	2.0	1.8	1.7	1.9	1.8	1.8	1.7	1.7	1.7	1.8	1.7	1.7	1.8	1.7	1.7	1.8
SSW	1.9	2.3	2.2	2.2	2.6	2.3	2.1	2.3	2.2	3.1	2.5	2.1	2.4		2.3	2.3	2.3	2.4	2.2	1.9	2.2	2.2	2.8	2.3	2.5	2.4	2.4

CH4 Emissions Histogram



Count of Alerts by Month

AlertType	January	February	March	April	May	June
10ppm	1	1	6		3	7
100ppm	1	3				1
Smart						2

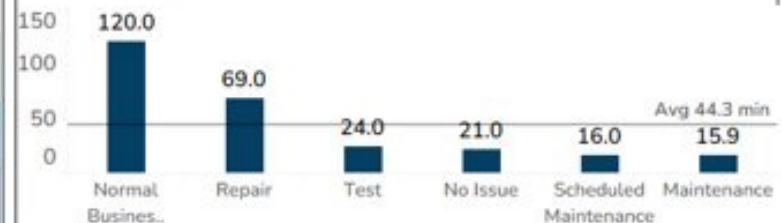
Count of Alerts by Root Cause



Alert Duration by Month (Minutes)

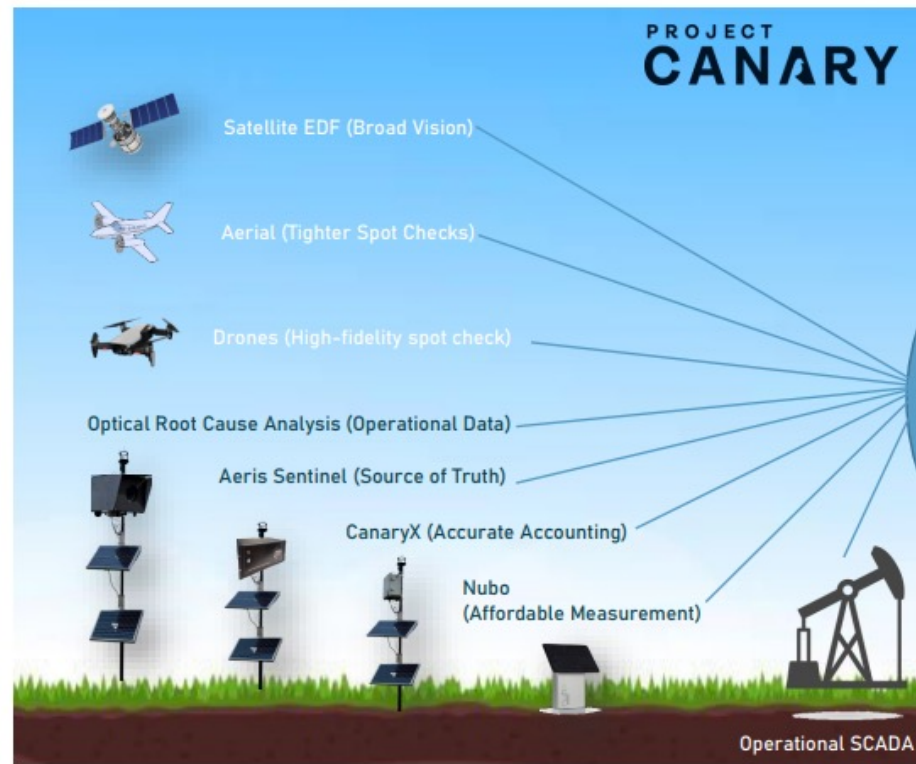
AlertType	January	February	March	April	May	June
10ppm	18.0	30.0	19.8		17.7	18.7
100ppm	20.0	83.0				92.0
Smart						154.5

Average Alert Duration by Root Cause (Minutes)



PROJECT CANARY

Emissions Platform 3.0: Verified Climate Insights



- 1 World's Most Transparent Environmental Portal (Public or Private Sharing Options)
- 2 Regulatory Reporting and Risk Management
- 3 Operational Control Center
- 4 Facility Level Environmental Assessment

Dynamic Environmental Assessment

TrustWell® by Project Canary

Evaluation Across Land, Air, Water & Community

1

Holistic, independent review of environmental risks by a professional team with **over 100 years of combined mechanical, chemical, and petroleum engineering experience**

WATER



COMMUNITY



LAND



AIR



2

Dynamic evaluation to recognize and suggest risk-mitigation efforts

Qualitative & Quantitative Audit

- Site visits to every wellbore/facility assessed
- Asset level life cycle assessment of environmental impact
- **Robust, multivariate audit:**

Data Points

600+

Evaluated across 26
core impact categories

Customer-Provided
Documentation

~1,000 Pages

for every wellbore certified



RSG Update

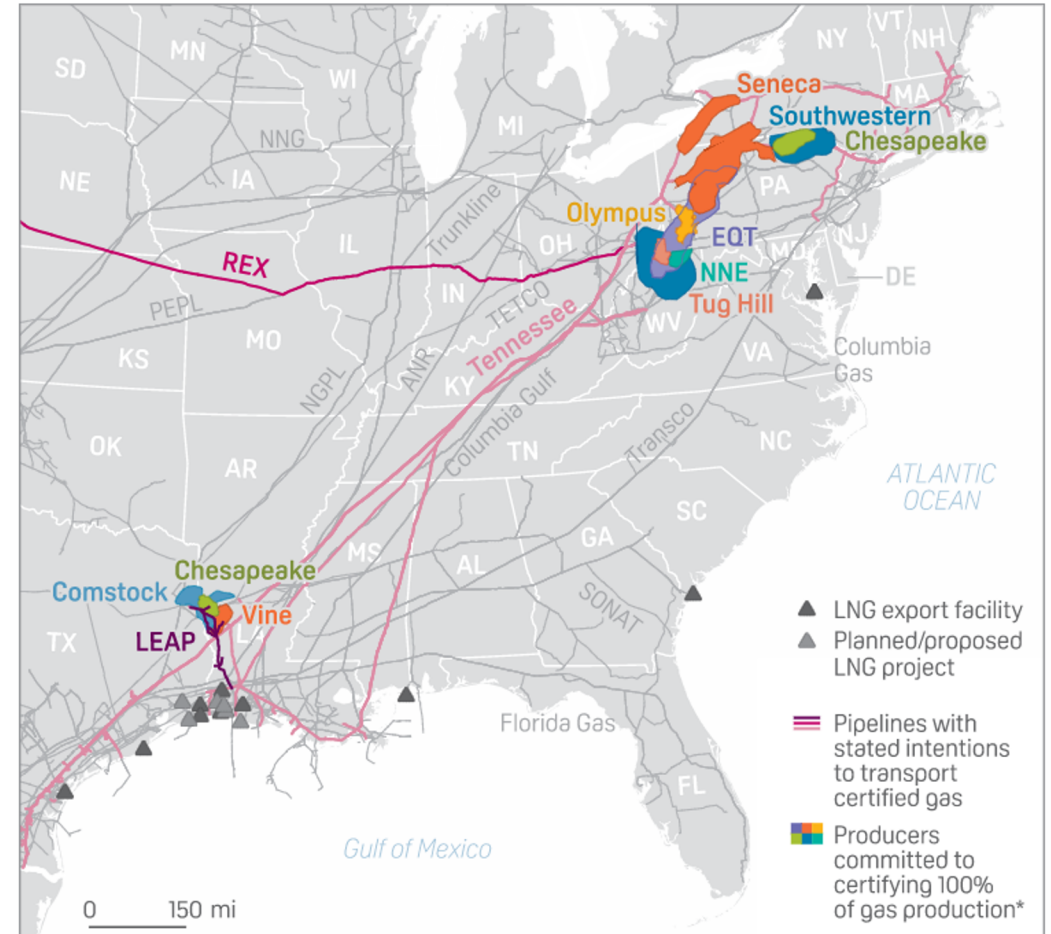
Certified Gas Gains Momentum

“Methane emissions have emerged as a key performance metric for certified gas, with an emphasis on **monitoring and measurement**.”

S&P Global, October 14, 2021

“Record volumes of gas certified for its environmental credentials have come to the market after nearly two dozen US gas producers committed to external assessment of their emissions and ESG criteria last year.”

S&P Global, January 14, 2022



*Not shown: Crestone Peak Resources in Colorado committed to certifying 100% of gas production; total volume undisclosed.

Data as of December 14, 2021

Source: S&P Global Platts Analytics, company websites

Recent RSG Contracts and Public Transactions

Recent Developments:

- Long-term RSG contracts are becoming increasingly more popular in the marketplace
- Upstream producers and downstream customers are quickly recognizing the benefits of RSG and its essential role in meeting the ESG and environmental standards demanded by the public markets and investors



NextDecade and ENGIE Execute 1.75 MTPA LNG Sale and Purchase Agreement (May 2, 2022)

"The signing of this SPA is an important step in showing our commitment in the areas of environmental stewardship, social responsibility, and governance best practices, while upholding the LNG industry's highest standards. It also shows how we can help meet our buyers' climate change initiatives, while providing them access to secure energy supply" – Matt Schatzman, NextDecade's Chairman and CEO



Southwestern Energy, Uniper Execute Supply Agreement for RSG (June 14, 2022)

"Southwestern Energy is strategically positioned to supply the world's growing energy demands with its responsibly sourced gas. We believe natural gas is foundational to a low carbon future, and that U.S. natural gas in particular plays a vital role in supporting global energy supply and security. This agreement further demonstrates SWN's differentiated position to reliably deliver responsibly sourced gas both here at home and abroad" – Bill Way, Southwestern Energy President and Chief Executive Officer



THANK YOU

PROJECT
CANARY