

Qube



Qube Continuous Methane Monitoring Technology

COMPANY DESCRIPTION

Qube Technologies delivers a turnkey continuous monitoring solution that gives operators real-time visibility into methane and air quality emissions across oil & gas, biogas, landfill, and utility sites. Its rugged IoT sensors run on solar power or field-replaceable batteries and stream key emissions data over LTE, so there's no need for site power, cabling or Wi-Fi.

How it Works: Each device houses a calibrated multi-gas detector paired with an anemometer. That sensor package captures wind speed and direction. Every few seconds, the device transmits concentration and meteorological data to Qube's cloud platform. Physics-guided dispersion models compute plume trajectories and emission rates. Operators choose their alarm thresholds in the dashboard, then let the platform automatically alert them via email the moment anomalies occur. Historical and live data feed into interactive heat maps and trend charts. Exportable and open REST APIs allow easy integration with asset management or GIS tools.

Value Proposition: Qube's continuous monitoring detects and quantifies leaks in real-time—instead of weeks or months under traditional LDAR. This consistently leads to realized emissions reductions of up to 95% reduction when coupled with optimized work practices. By replacing periodic surveys and manual leak hunts, operators cut monitoring costs by as much as 80% and redeploy field crews to high priority repairs. With its plug-and-play design, operators can install the devices in under 30 minutes with no grid tie-in or specialized labor required. Qube's modular architecture scales from a single site to global asset portfolios, all managed from one dashboard.



RECENT SUCCESSES

Since launch, Qube has deployed more than 6000 sensors at over 1000 sites worldwide, covering upstream and midstream oil and gas, landfills, biogas facilities, utilities and waste management operations. In February 2025, the U.S. EPA approved Qube as an Alternative Test Method for periodic screening, making it the first point-source continuous monitoring technology accepted for OOOOa, OOOOb, and forthcoming OOOOc compliance programs. A month later, Qube secured a CAD \$402,000 NGIF Accelerator grant to advance localization and quantification accuracy, supplementing earlier equity investment and field-trial support. Additional regulatory endorsements from Colorado's Reg 7 and Alberta Directive 060 further validate Qube for use across North American jurisdictions.

Operators, like Birch Resources and Roeslein Renewables, realized single-event savings of tens of Mcf per day in captured product and avoided process safety-related downtime. Qube's continuous monitoring has proven effective in real-world deployments, detecting thief-hatch leaks, produced water spills, and combustion inefficiencies in real time. These are issues that periodic OGI or AVO surveys can often miss or identify too late. Across these projects, cost-benefit analyses show a 40-80% reduction in total LDAR costs compared to quarterly inspections, even before factoring in recovered gas value and lower penalty exposure.

PTAC's Contribution to Success: Partnership with PTAC has accelerated market adoption through field demonstrations, Methane Leadership Summit appearances, and international exposure at CERAWEEK, OTC, and COP 29. These initiatives have diversified Qube's customer base beyond the U.S., de-risked entry into international markets, and supported year-over-year growth in both revenue and headcount despite volatile energy markets. With validated technology, regulatory approvals, and strong customer relationships, Qube is positioned as a leader in data-driven emissions management.

Notable Export Achievements:

1. Expanded beyond oil & gas into new verticals such as landfills and renewable natural gas (RNG).
2. Entered new regions, moving from North America into Europe and the Middle East.
3. Shipped hundreds of devices to customers while scaling manufacturing capacity.



"PTAC's field demonstrations and showcase opportunities fostered Qube's continuous monitoring technology to scale globally and enter new markets."

- Alex MacGregor, CEO

An IoT-powered continuous methane monitoring platform that detects, localizes, and quantifies emissions in real time.

- ~70% of sales are exported outside of Canada
- ~15% of our deployments are in non-oil and gas applications
- Maintained over ~40% yoy growth
- Tariffs have created uncertainty and lost productivity

