BRIDGER PHOTONICS APA

# Strengthening Methane Insight on a Major Gas Transmission System

## CASE STUDY AT A GLANCE

**Operator:**
APA

**Regulatory/Reporting Frameworks:**
None

**Technology:**
Bridger Photonics' Gas Mapping LiDAR®

**Value Chain Segment(s):**
Transmission

**Result:**

- Accurate methane emissions measurement and improved abatement planning

## CHALLENGE

As methane reduction expectations evolve, transmission operators need more accurate, defensible emissions data. APA Group focused on progressing enhanced methane measurement to improve the accuracy of methane data and transparency of disclosures as well as guide abatement plans to achieve its FY30 methane emissions reduction target.

Beginning in 2024, Bridger Photonics (Bridger) supported APA with independent, high-resolution methane measurements to build understanding of methane emissions across the portfolio.

## APPROACH

Bridger conducted independent aerial methane detection scans using helicopter-deployed Gas Mapping LiDAR® technology to measure methane emissions across APA's infrastructure. Bridger's approach enabled wide-area coverage paired with high-sensitivity detection of methane emissions from APA's transmission and storage assets.

The aerial measurements localized and quantified emissions down to the equipment-level and provided an independent dataset. Bridger's data was used as part of APA's enhanced methane reporting method that quantifies methane emissions using a combination of activity data, engineering calculations, and both ground-level and aerial direct measurements to improve the accuracy and completeness of reported emissions. The method is guided by international best practices, including the United States Environmental Protection Agency (US EPA) Method 21 and the United Nations Environment Programme Oil and Gas Methane Partnership 2.0 (OGMP 2.0) framework.

## BENEFITS

- Improved accuracy & completeness of methane emissions data
- Measurement-informed inputs guided abatement planning
- Aerial measurement data suitable for integration with ground-based measurements and engineering calculations

## EMISSIONS INSIGHTS

Bridger's aerial LiDAR data provided a comprehensive view of methane emissions across APA's pipeline and associated transmission infrastructure. Bridger's results helped clarify where emissions were occurring and reinforced the value of combining independent aerial measurements with other methane measurements and estimations to produce more accurate methane intelligence, and better abatement planning insights.

## RESULTS

- **In FY25, aerial scans confirmed that no methane leaks were detected on the pipelines at all three measured assets, and that all emissions were from related pipeline infrastructure (compressor stations, scraper and main line valve stations)**
- **In FY24, Bridger's data supported the finding that no methane fugitive leaks of process safety concern were identified on the South West Queensland Pipeline (SWQP), and fugitive methane emissions were comparatively low**
- **Abatement planning and transparency of disclosures were improved, and APA established its own enhanced methane reporting method**

## KEY TAKEAWAY

Bridger's aerial methane measurements help operators identify and **understand emission sources** across large areas and **strengthen abatement planning** and reporting confidence.

## ABOUT APA GROUP

APA Group is Australia's energy infrastructure partner, transporting almost half of the nation's domestic gas supply, owning and operating assets across gas transmission and storage (including associated infrastructure), electricity generation (gas and renewables) and transmission and battery energy storage systems.

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