

# Optimizing sensor placement to guarantee site coverage and inform analytics

The Nubo Sphere siting procedure guarantees that Nubo Sphere sensors detect methane as soon as possible in the event of a leak. It also gathers critical information beyond sensor data that the solution uses to accurately localize and quantify methane emissions.

“Strategic siting improves the accuracy of analytics and the effectiveness of mitigation strategies.”

Javier Bilbao  
Product Manager, Sensirion Connected Solutions

## Optimizing sensor placement for every operator

Nubo Sphere uses customer-specific emissions thresholds and site-specific information on equipment locations, exclusion zones and historical wind data to deliver cost-efficient and reliable monitoring.

### How many Nubo Sphere nodes do oil and gas sites need?

A site should have enough sensor nodes to cover all possible emission sources at a specified detection threshold. This is usually three or four sensor nodes.

### Comprehensive coverage of all equipment

Reliable leak monitoring requires covering all potential emissions sources. The Nubo Sphere siting procedure, therefore, maps the type and location, including height, of all equipment.

### Sensor range and emission rates

All emission sources that operators wish to be monitored must fall within the operational range of at least one sensor node. For emission rates of 1 kg/h, Nubo Sphere's sensors have an operational range of 5 – 70 meters (15 – 220 feet) with a coverage angle of ~35°.

### Wind information

Using publicly available, historical wind data on prevailing winds, Nubo Sphere can prioritize sensor placement. Sites are also equipped with 2D ultrasonic anemometers to collect accurate, real-time wind information.

## Beyond raw sensor data

Information gathered during the siting procedure complements real-time sensor data, allowing Nubo Sphere's analytics to create a complete picture of emissions and deliver actionable insights oil and gas operators can count on.

Learn more



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[nubo@sensirion.com](mailto:nubo@sensirion.com)