How IoT Sensors Provide Scope 1 and 2 Emissions Data
Big Savings From Tiny Devices

2 INSIGHTS

1. **IoT sensors are used to measure the direct release of GHG gases into the atmosphere (Scope 1) and to provide the granular real-time data needed to drive down energy expenses and emissions (Scope 2)**

2. **The direct release of methane is now financially significant with new higher penalties and financial subsidies for monitoring and reductions**

FACTS

• The penalty in the Inflation Reduction Act for methane emissions is set at $900 per metric ton of methane and increases to $1,500 in 2025 (CRS)

• There is also $1.5B in subsidies in the IRA for methane monitoring and reductions (CRS)

• IoT sensors are used to measure methane emissions

• IoT senses are also used to drive energy reductions. An IoT sensor on an HVAC unit can be used to monitor a variable speed motor, detecting possible patterns of energy waste

"Methane is the second largest GHG emitted, and is more than 25 times as potent as carbon dioxide at trapping heat in the atmosphere."

EPA

For the past decade, IoT sensors have played an incredibly useful role in precisely measuring events in real time and sending that data to a central platform for monitoring, aggregation and analytics. Today a new use case has arrived, operationalizing sustainability.

IoT data has a high financial return, from reduction in penalties for methane emissions and reduction in costs for energy waste. And there are two more value streams as sustainability data now impacts enterprise valuations and access to capital.

Here's a typical user story: A well-known global professional services firm has offices on two or three floors of prestigious skyscrapers in major cities around the world. In some buildings the only energy data is from the landlord's single utility bill for the entire building. Without IoT sensors the professional services firm cannot challenge the pro rata bill allocation or begin to save energy and money – it has no data.

In some areas smart meters have been installed by the local utility, and building managers attempt to use that data stream. But research from MissionData shows that less than 3% of smart meters are configured to share data with their users. GLYNT has found IoT sensors are better, faster and cheaper than smart meters.
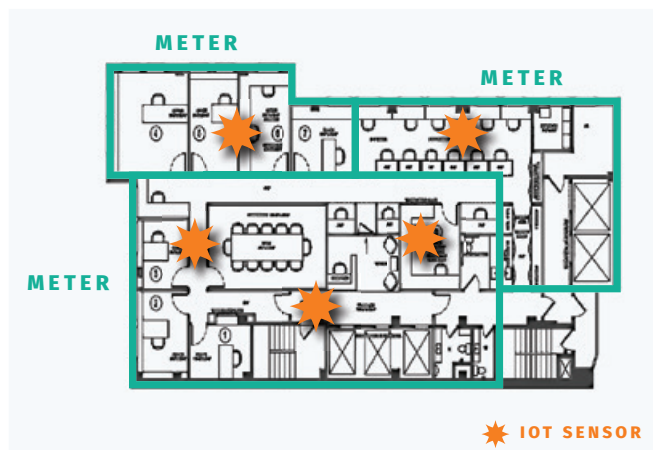
Sample Electricity IoT Sensor
2″ x 1″ x 0.4″ (Vutility)

Sample Methane IoT Sensor
2″ x 1.5cm x 1.5cm (Sparkfun)

Sample Water IoT Sensor
10″ x 7.2″circum (Vutility)

READ THE RESEARCH

- More on Methane Emissions
- The Failed Promise of Smart Meters
- From Field to CFO: How IoT Sensors Operationalize Sustainability Data in Oil & Gas

ABOUT GLYNT

GLYNT.AI

The sustainability data you need, your way

GLYNT produces investor-grade sustainability data for businesses around the world. Our accurate, complete and audit-ready data enables reporting, operational efficiencies and access to financial capital. Using advanced machine learning, GLYNT is the single solution for water, waste, energy and emissions data. Confidently get the sustainability data job done. Learn more at glynt.ai