

WHY VL ENERGY

ES-PEMS (Efficient and Secure Predictive Emission Monitoring System) offers a software-based solution for the continuous real-time monitoring of gas emissions like NOx, SOx, CO, CO2, N2O, and CH4 from stationary combustion equipment such as Turbines, Boilers, Furnaces, and OTSGs. It leverages artificial intelligence, machine learning, and cloud computing to ensure regulatory compliance, enhance health and safety standards, and drive cost efficiency.



Get real-time data to make data-driven decisions and meet your emission reduction goals.

CONTACT US

Website

<https://vlenergy.ca/>



LinkedIn

<https://www.linkedin.com/company/vl-energy-ltd/>



@vlenergy

@vlenergy.ltd

Facebook & Instagram

Phone

+1 (403) 483 8688

Address

112 4 AVE SW, Calgary AB,
T2P 3N3



VL ENERGY
BRINGING EFFICIENCY AND SUSTAINABILITY TO THE WORLD

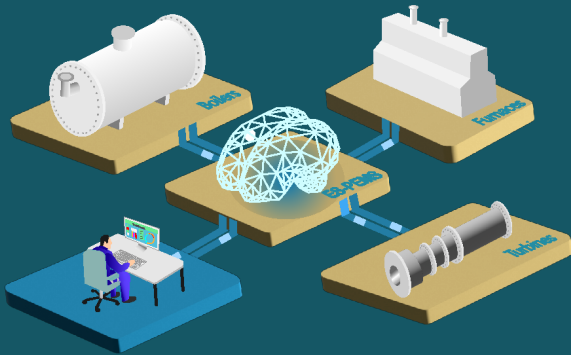
ES-PEMS

Efficient and Secure
Predictive Emissions
Monitoring System

ES-PEMS

ES-PEMS is an industry disrupter, as it replaces the need for physical hardware **onsite for emission monitoring** and measuring. monitors a wide range of emissions including:

- Particular matter
- Nitrogen oxides
- Sulfur dioxide
- Carbon monoxide
- Volatile organic compounds
- Hazardous air pollutants
- Greenhouse gases.

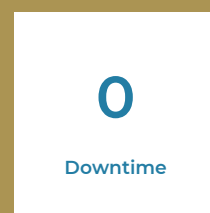
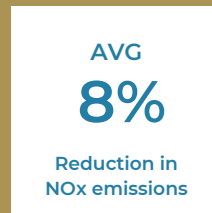
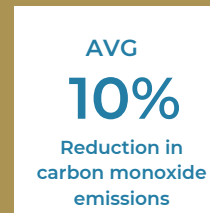
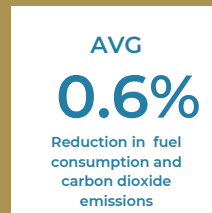


HOW DOES IT WORK

1. **Data Collection:** PEMS gathers operational data from equipment
2. **Advanced Analysis:** Using machine learning
3. **Emission Prediction:** Leveraging data
4. **Dashboard Access:** Real-time data access
5. **Operational Adjustments:** Alarm notifications improved efficiency
6. **Regulatory Compliance:** System ensures compliance

BENEFITS

- Compliance with regulatory requirements.
- Significantly reduces CAPEX and OPEX costs by an impressive **70%**
- Uptime of **99.99% rate.**
- Eliminates the need for physical equipment
- Personnel Safety Improvements
- Increased Operational Efficiency
- Realtime Data Availability
- Financial Risk Management and Carbon Tax Savings
- Embraces ESG digitalization, aligning with sustainable practices



MILESTONES

Pilots

Successful major oil and gas company pilot expansion to full scope of deployment in the operational setting

Powerplant Generation

- Powerplant Generation - Turbine Optimization. **May 2023**
- Powerplant Generation - Cogen optimization and Carbon tax application, **July 2023**

Patent Pending

- Patent Provisional Filing, **July 2023**
- Second Patent Provisional Filing in Progress, **Jan 2024**

OUR MISSION

VL Energy's mission is to commercialize our Efficient and Secure Predictive Emission Monitoring System (ES-PEMS) that helps companies meet environmental regulations, improve work safety, reduce emissions, and optimize operations. Our goal is to contribute to a cleaner, greener, and more sustainable world.