Emp



**Empowering a Sustainable Future through Real-Time Emissions Intelligence** 



# **Emissions Monitoring and Reporting Will be Mandatory** Inaccurate measurement will result in substantial costs



## **Emissions Reporting Requirements**

- 1. Mandatory Sustainability and CSRD Reports, EEA, EPA, IMO, etc.
- 2. Recommended: ISO 14064 (GHG Standards), Ship Classification Agencies, ISS, etc.



# The cost of monitoring and reporting systems is high

- 1. Requires special monitoring equipment and Incremental administrative expenses.
- 2. Estimated annual cost of traditional systems is approximately \$50-75K for each ship, rigs, compression units, etc



### The cost of inaccurate data is high, too:

- 1. Direct Costs: Carbon taxes, remediation plans, etc.
- 2. Indirect Costs: Doesn't capture all emission reduction benefits

# **Cyanergy Emission Reporting System is Revolutionary**

Machine learning drives down the cost of emission monitoring by >95%.

Accurate measurements create opportunities for carbon credits and offsets and help reduce the cost of carbon emissions.

### **Reduces compliance costs.**







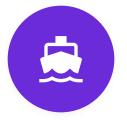
**Market Opportunity** 

# Emission monitoring is part of \$1 trillion energy efficiency market

Measuring, recording and verifying (MRV) technology is a greenfield opportunity

Source: Persistence Market and Research.

Industrial engine applications



40,000 Ships Shipping industry



**50,000** Compression Units



2,500 rigs Drilling industry



Carbon Credit Markets The shipping industry generates

# Million Tons CO2 per year

A 10% reduction would reduce the carbon cost by approximately

\$9 billion/year

**Cyanergy's Solution** 

# **Cyanergy uses real-time data** to create energy efficiency solutions



### **Emission tracking**

Cyanergy efficiently tracks and monitors emissions resulting from essential activities and tasks, addressing the issue of inefficient energy use.



### **Activity-emission Link**

It seamlessly connects emissions to the specific activities and processes that require power, giving you valuable insights into energy consumption.



### **Cost integration**

Operators can integrate emission data into cost calculations for various operations such as drilling wells, shipping transportation, and power generation, helping optimize expenditure.



# **Budget-friendly analysis**

Cyanergy offers in-depth analysis capabilities that enable informed capital decisions, even with limited budgets.

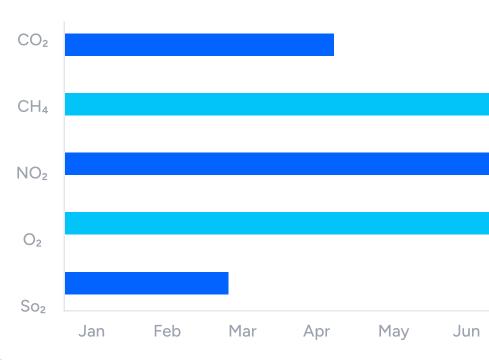


# **Report Dashboard**

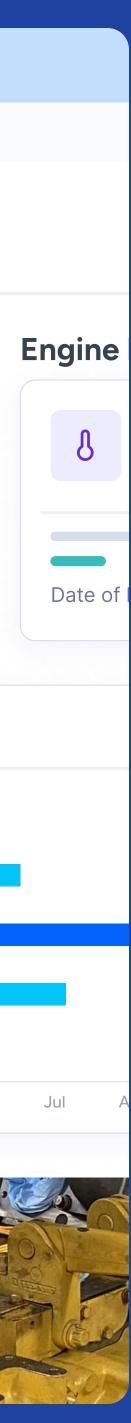
#### **Fuel Flow**



### Report









Value Proposition

# Immediate traction

Contracted a series of pilot tests with a large  $\checkmark$ customer before the MVP was designed

 $\checkmark$ 

Validated stoichiometric assumptions and data collection



Developed operational reports and visualization



Improvements in the hardware to make measurements more reliable and accurate

Integrates natively with



**Opened doors for new customer and** technical opportunities.

Successful pilot tests results in additional 10 new units from the same customer, with an ultimate goal for 35 units

In discussions with two companies with 150 rigs and 150 ships

Designed and built a new generation ECM which is smaller, more reliable and cheaper to build

Collected six months of results: data that will be used to train machine learning software

Validated the SaaS strategy with less capital and lower risk for future investors.





Strategic Breakthroughs

# The Future: Low Cost Wireless Mesh Sensors with Machine Learning Algorithms

The new system will reduce our per-unit cost by about 95%

- Creates a new "virtual" gas analyzer
- Time to install: 10 minutes
- Customized data visualization
- Low manufacturing cost
- Lower risk of failure etc.

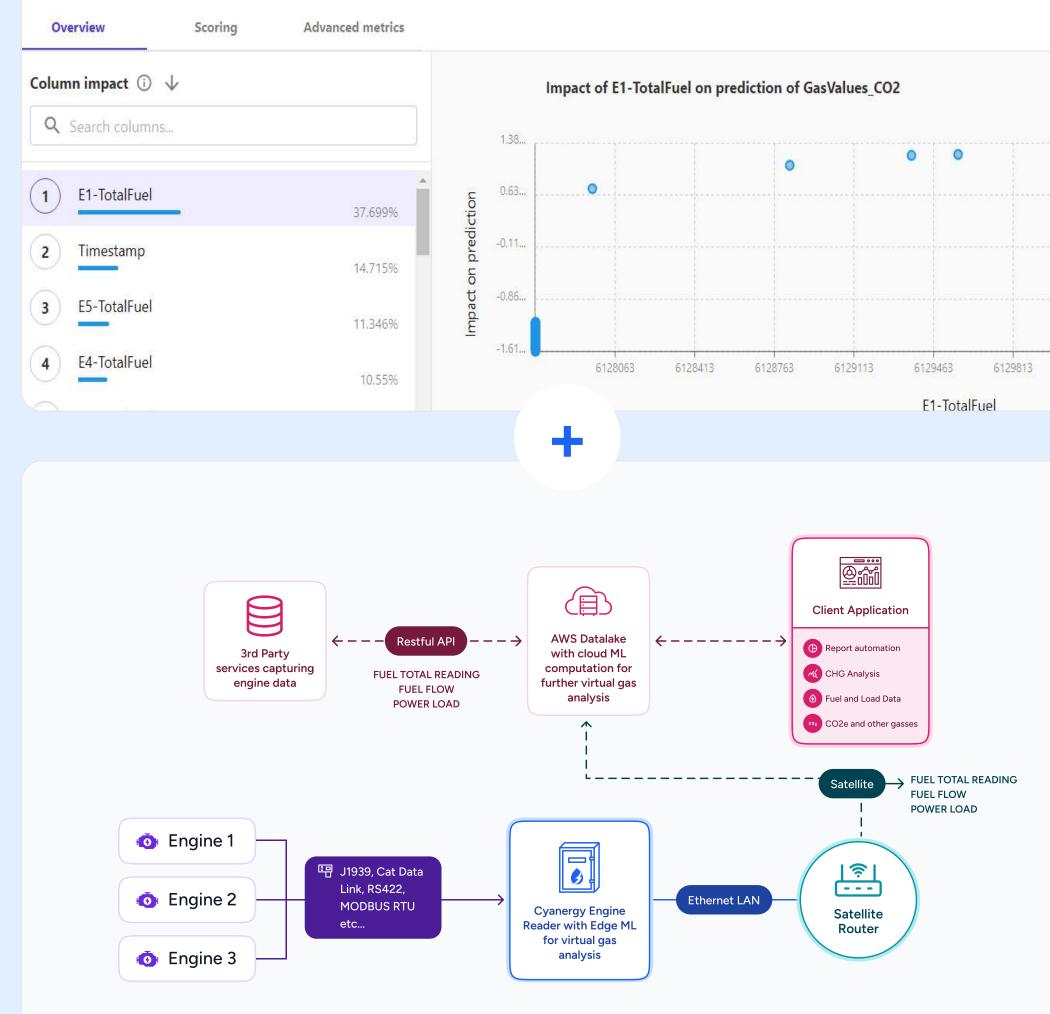
#### Model status

RMSE (i) MSE (i) Optimization metric

0.030

#### 0.172

The model often predicts a value that is within +/- 0.172 of the actual value for GasValues\_CO2 (i)

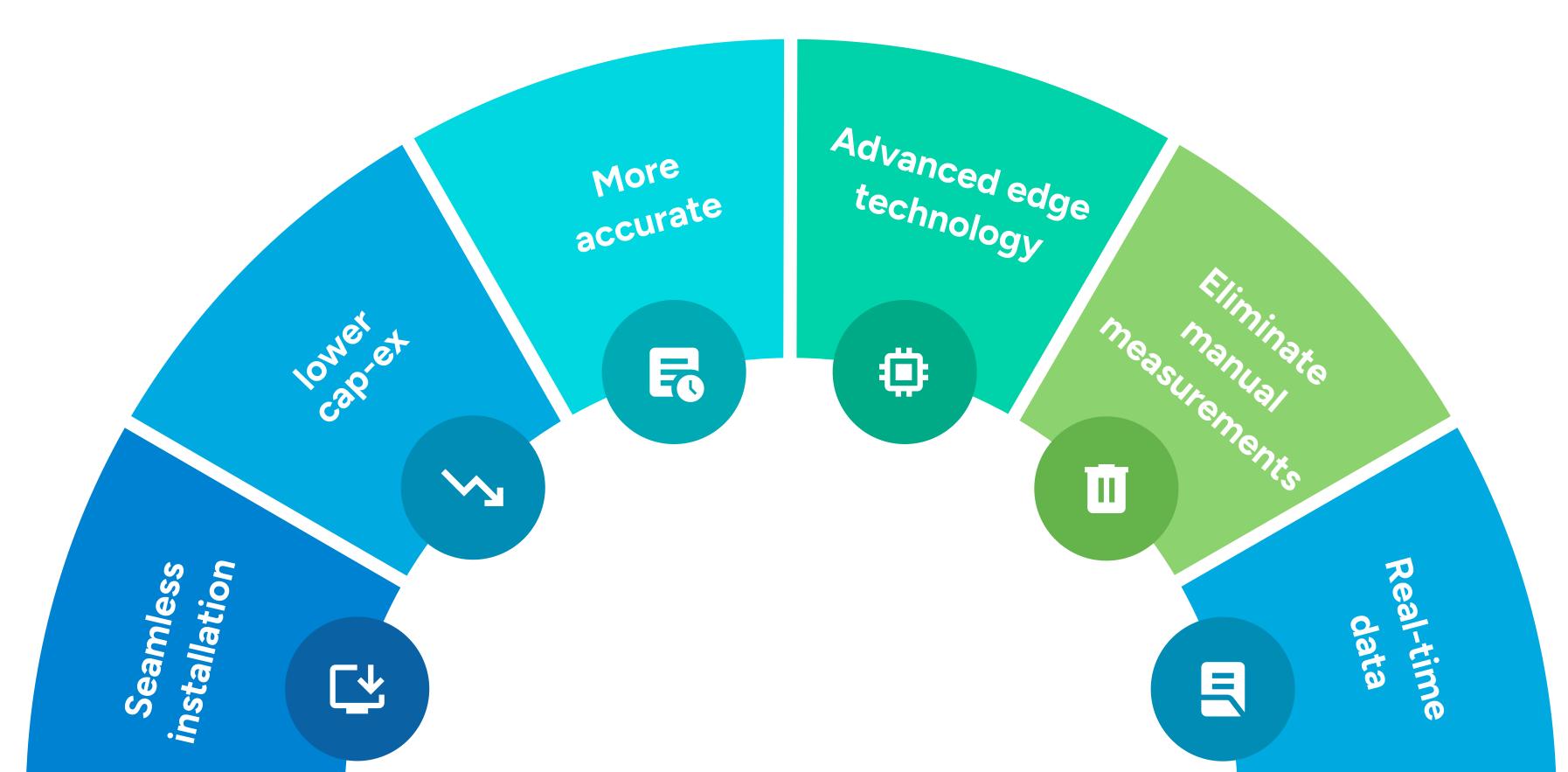






# Meeting customer emission commitments with limited budget

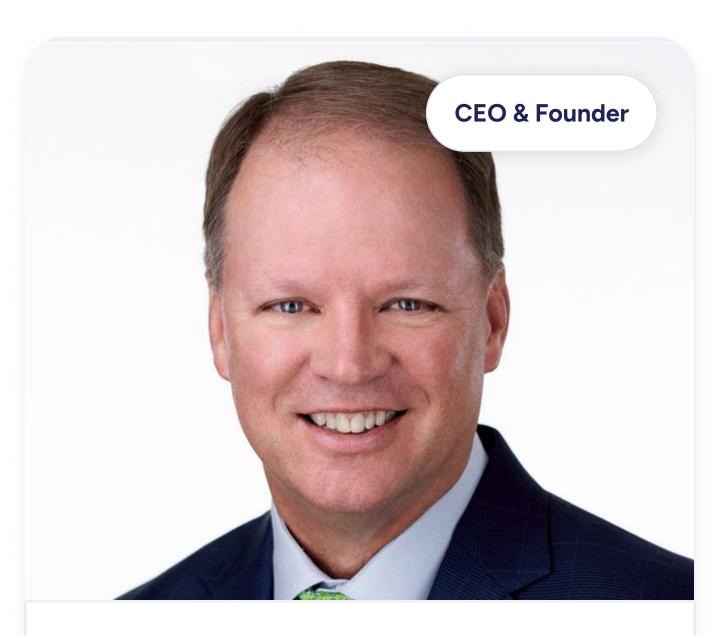
Our solution is equipped with next-generation edge technology, making it adaptable to a wide range of applications. Its "agnostic" nature means that it can seamlessly integrate into various setups, providing flexibility and scalability for businesses.



 $\boldsymbol{\boldsymbol{\beta}}$ 

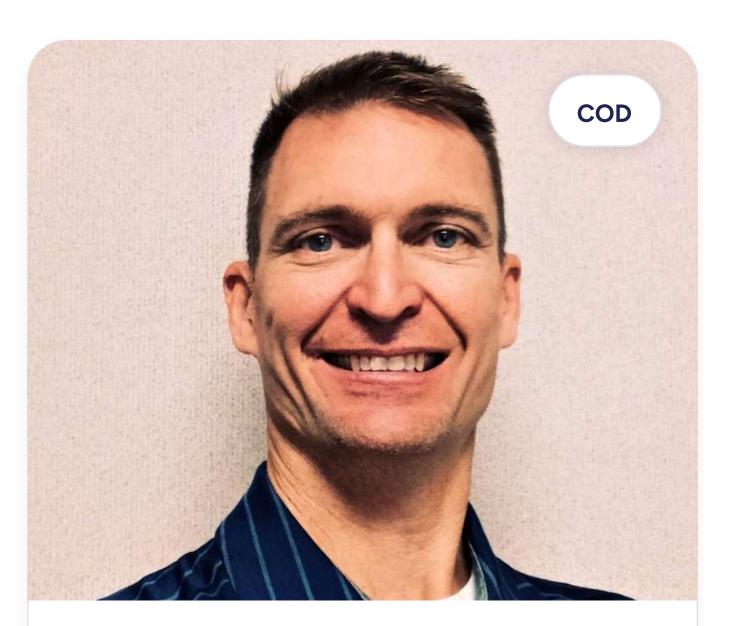
Value Proposition

# Our team



### **Steve Manz**

CEO and co-Founder of TS Cyanergy, Board Member, Advisor to Start-Ups and International Financial Expert



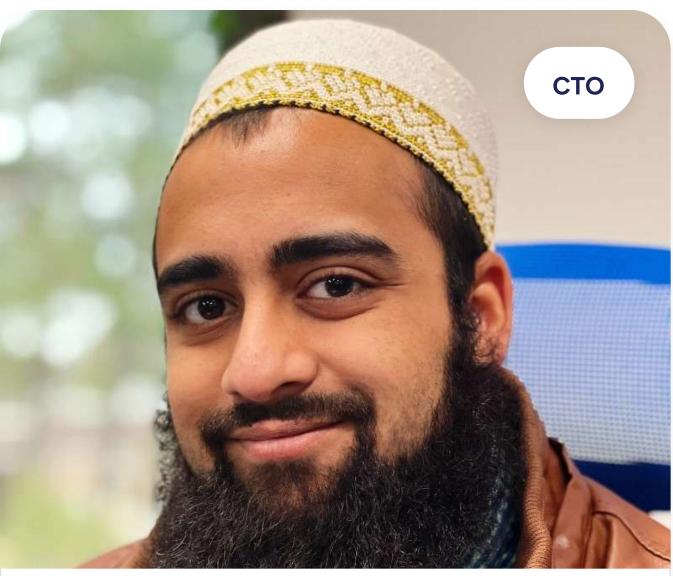
## **Roy McIntyre**

Twenty years of experience leading land and offshore rig fabrication, factory design and construction, and Business Process Improvement projects.

# Partnerships with Technology Leaders



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### Mohammed Khambaty

ex-CTO of an IIoT company with a multidisciplinary engineering background leading multiple technical teams to product fruition

soft**serve** 





**Platform Design** 





# Funding new ML models to drive down emissions from the largest emitters

# \$178K Hardware

- Drives \$586K from Hardware Revenue in 2024.
- •OTS components for ECM
- •Custom-designed control boards
- Develop relationships with manufacturers

# \$265K Testing and Development

#### •Permits a sea-change in hardware cost structure – from >\$85K per unit to <\$500.

- •Virtual Gas Analyzer creation
- •Validating stoichiometric models
- •Tests on land and marine engines

# **\$267K Cost of Sales**

#### Drives sales and deliveries to achieve cash-flow breakeven by Q4 '24.

- Salaries, tools, infrastructure
- •AWS Hosting fees
- •Travel to customer sites

# The Ask **\$1 M** 20% of pre-money valuation of \$5 million.

# \$155K Software development

• Drives \$360K from software subscription revenue in 2024, growing to 1.6M in 2025 as install base grows.

• More accurate stoichiometric models.

•Customized app for order-taking and Dashboards.

# \$135K Professional and **Transactional Fees**

### •Secures future revenue by increasing defensibility and opening shipping and other markets.

- Provisional patent converted to Utility Patent.
- •Class 1 Div 2 certification.
- DNV and similar certifications.



### Conclusion

# **Empowering new technologies** needed for the \$1 Trillion energy efficiency market



Cyanergy's machine learning system will cost 95% less than of traditional emissions measurement systems



- The 2050 Net-Zero commitment will require >\$15 trillion investment
- Future orders from the current and two prospective customers would represent 70% of projected revenue through 2026



Cyanergy's management team boasts extensive experience, backed by prominent technology partners.



475% ROI as part of a plausible exit plan, with distributions beginning 2026

