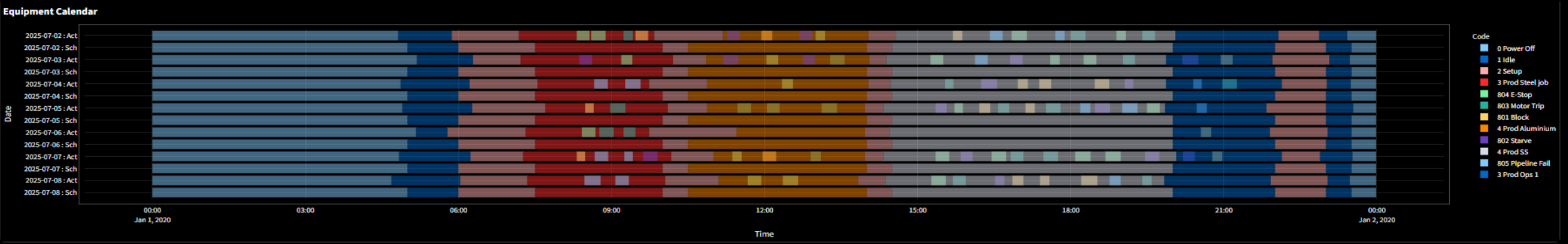
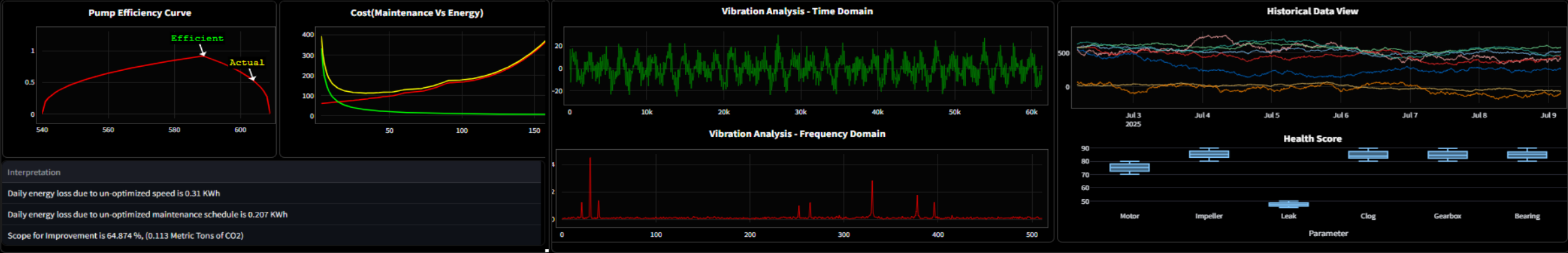
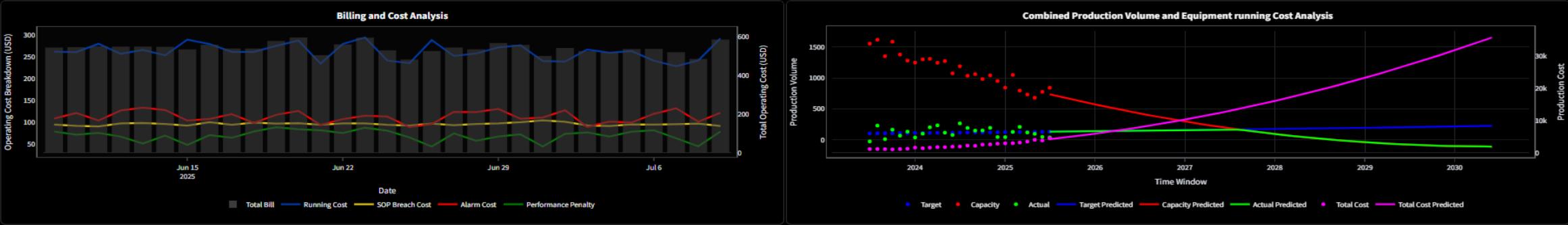


Equipment Dashboard

Dashboard - Pump 101A Dashboard



Equipment Hierarchy

Equipment/Fleet Consolidated Dashboard - Pmp New 101A

>

Enterprise

Site

Area

Cell-Line

Unit

Equipment

Coal India

Dipka OC Mine

Mine 1

Slurry Handling 1

Unit 1

Pmp 1111A

Consolidated Equipment Performance Equipment Health Production Cost Transactions

| | | | | | | |
|--|--|---|--|--|---|---|
| <div>OEE EY</div> <div>60.01</div> <div>↑3.0</div> | <div>Production Planned</div> <div>100.0</div> <div>↑0.0</div> | <div>Production Actual</div> <div>50.0</div> <div>↓-5.0</div> | <div>Slippage %</div> <div>-50.0</div> <div>↓-8.5</div> | <div>Next Day Capacity Predicted</div> <div>50.0</div> <div>↑0.0</div> | <div>Next Day Demand Predicted</div> <div>110.0</div> <div>↑0.0</div> | <div>Running Cost</div> <div>250.0</div> <div>↓-5.0</div> |
| <div>MTBR (Hrs.)</div> <div>60.01</div> <div>↓-10.01</div> | <div>MTBDE (Hrs.)</div> <div>20.05</div> <div>↓-5.2</div> | <div>MTTR (Hrs.)</div> <div>3.5</div> <div>↓-1.5</div> | <div>Unit Repair Cost</div> <div>200.0</div> <div>↓-50.0</div> | <div>Opportunity Loss</div> <div>180.0</div> <div>↑180.0</div> | | |

Predicted Message ???WIP2

Equipment Availability is decreasing. This will drop below 40% in 24 months

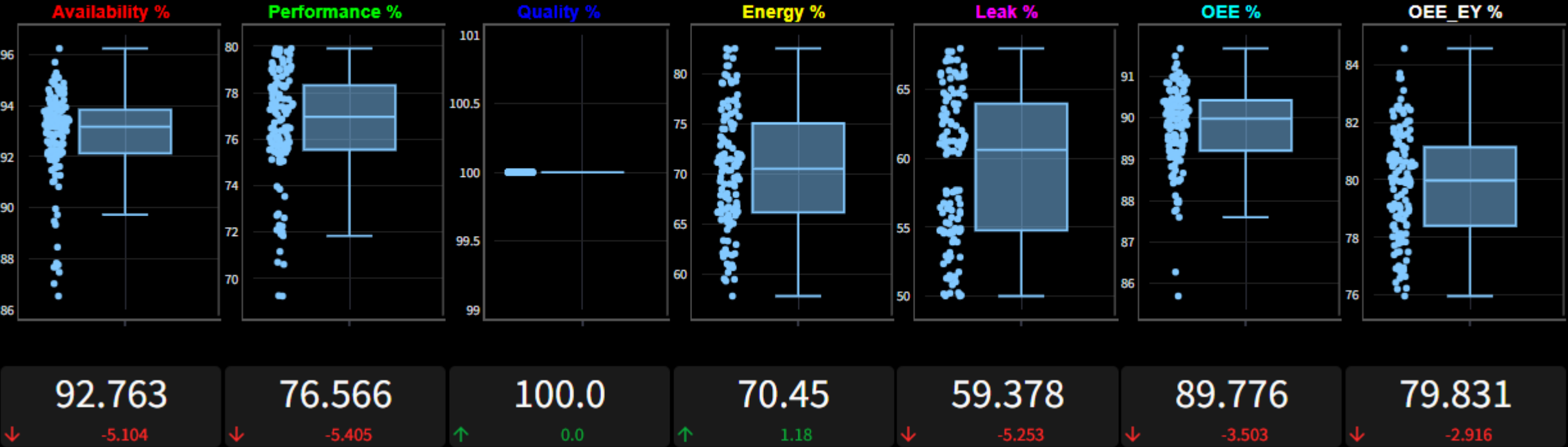
Pump capacity will drop below demand in 26 months

Pump Efficiency (Energy) is decreasing. This will drop below 50% in 4 months

ANOVA between failure modes is low, indicating every part of the pump is failing evenly. Part repair/replace will not help

KPI Analysis

Basic Statistics **Box Plot** Trend Plot Analysis KPI Data Grid



Optimization

Equipment Emission Analysis Pmp New 101A (Slurry Pump) [↔](#)

Start Date2025/01/10End Date2025/07/09Daily Demand575.00- +

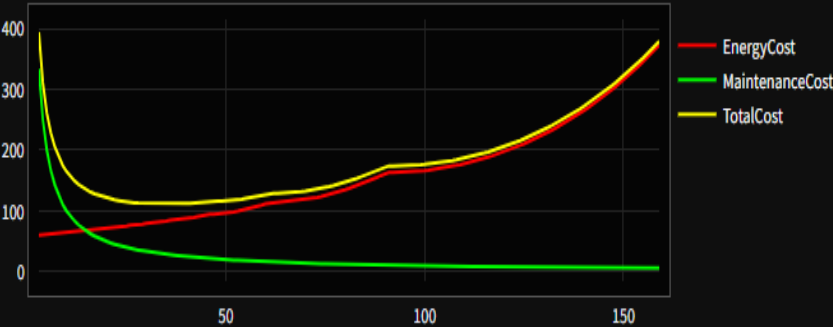
Daily Available Hrs20.00- +Flow Rate600.00- +Maintenance Interval (Days)30- +Maintenance Cost (USD)1000.00- +Energy Cost (USD)0.10- +

Optimization Based on Maintenance Interval Optimization Based on Running Speed

Maintenance (Pipeline Cleaning) Simization



Maintenance Cost Vs Energy Cost WRT Maintenance Interval



| Optimized Parameter | Value |
|----------------------|---------|
| Maintenance Interval | 33 |
| Maintenance Cost | 111.533 |

Upgrade Suggestion

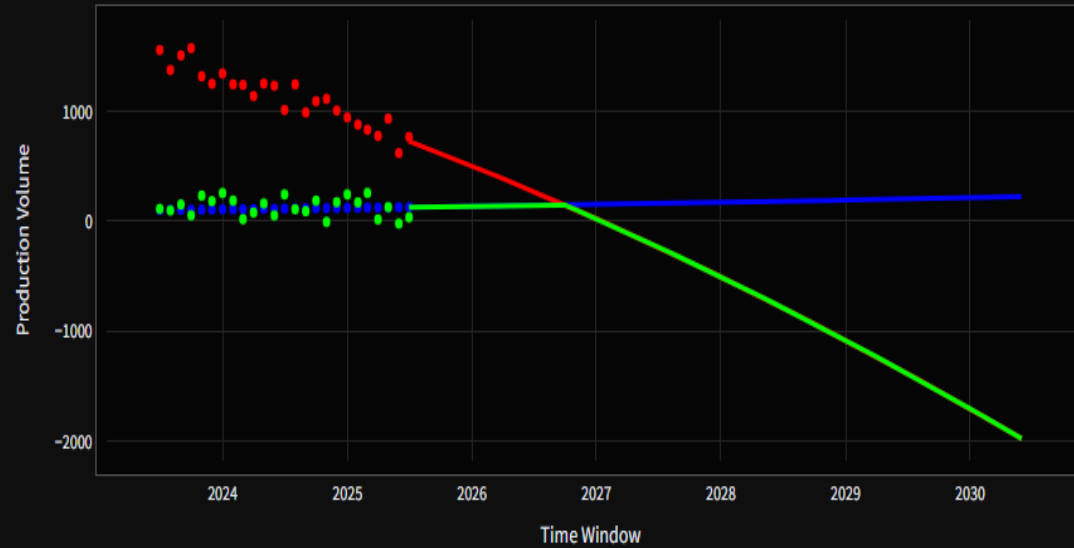


Equipment Upgrade Requirement Analysis - Pmp New 101A

Config ▾

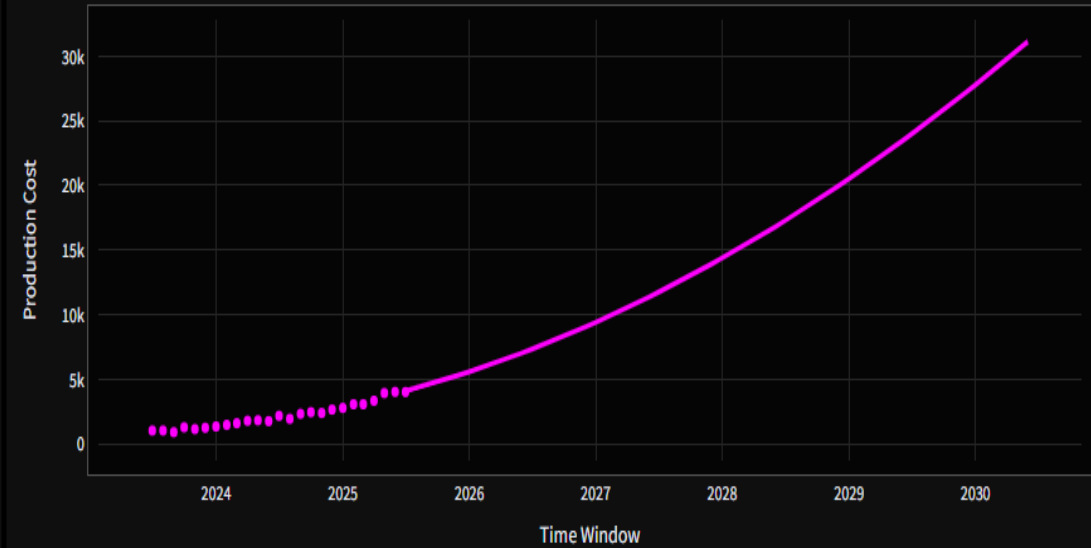
Chart RawData

Production Volume Analysis



● Target ● Capacity ● Actual — Target Predicted — Capacity Predicted — Actual Predicted

Equipment Running Cost Analysis

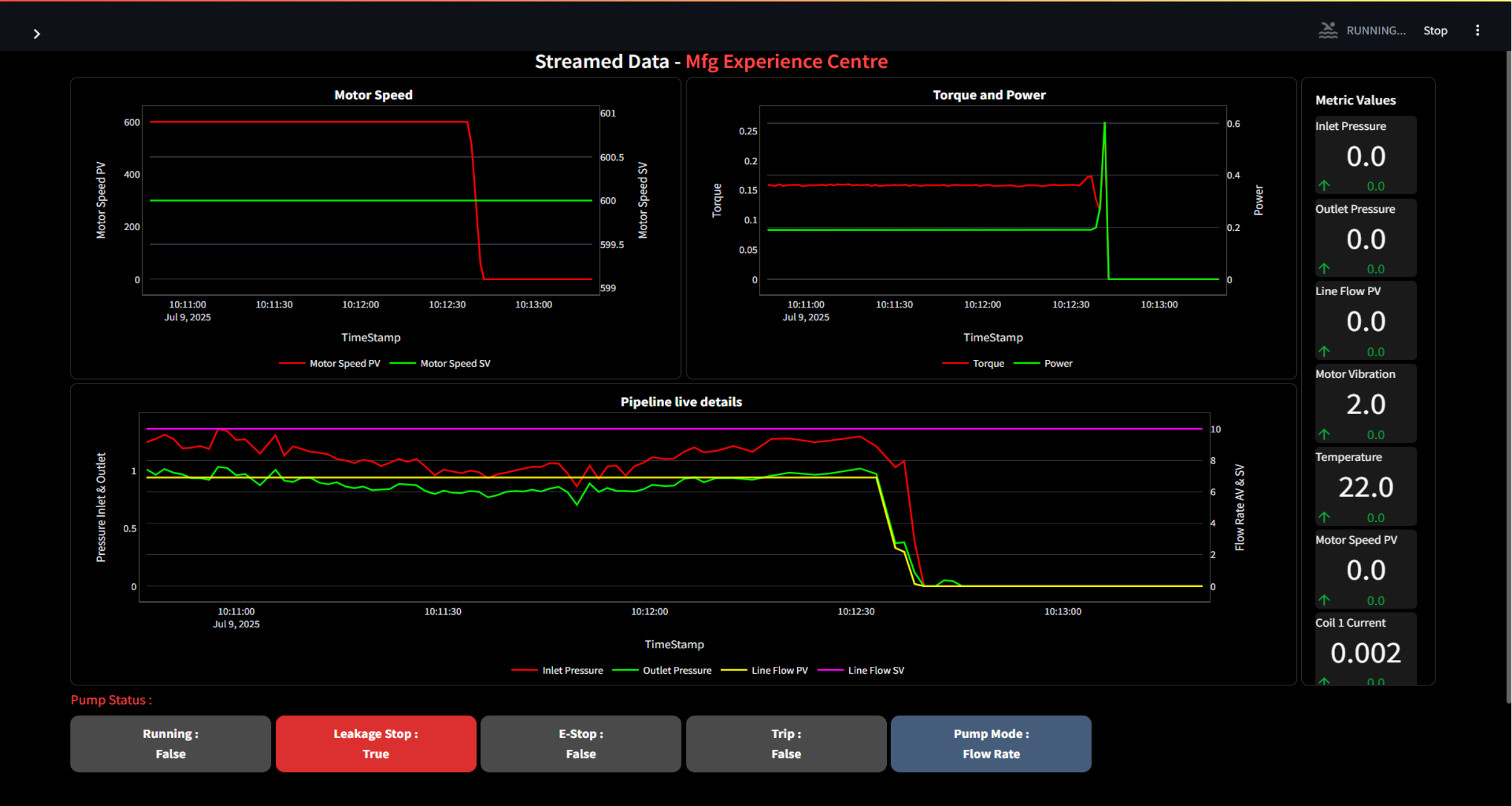


● Total Cost — Total Cost Predicted

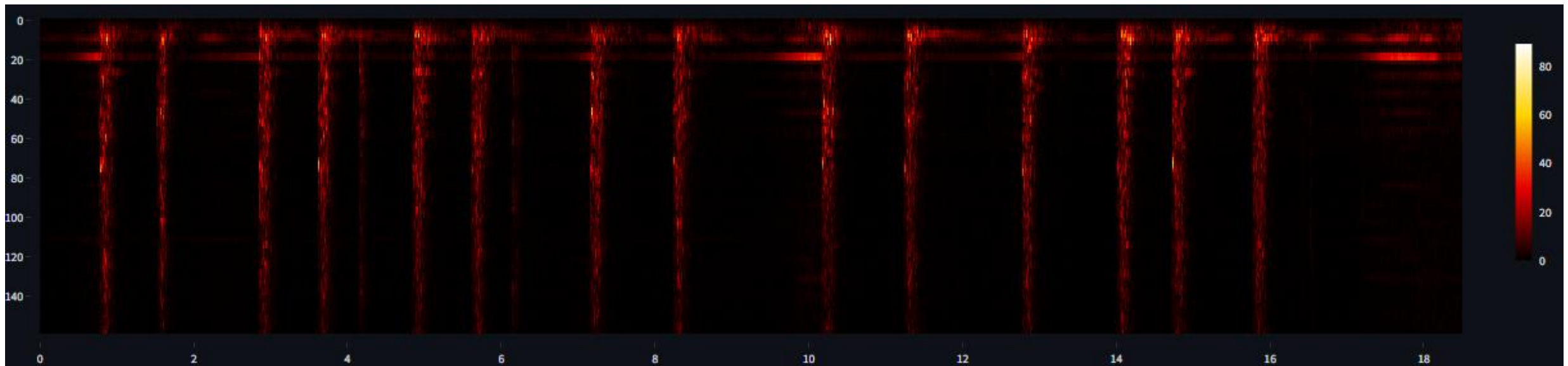
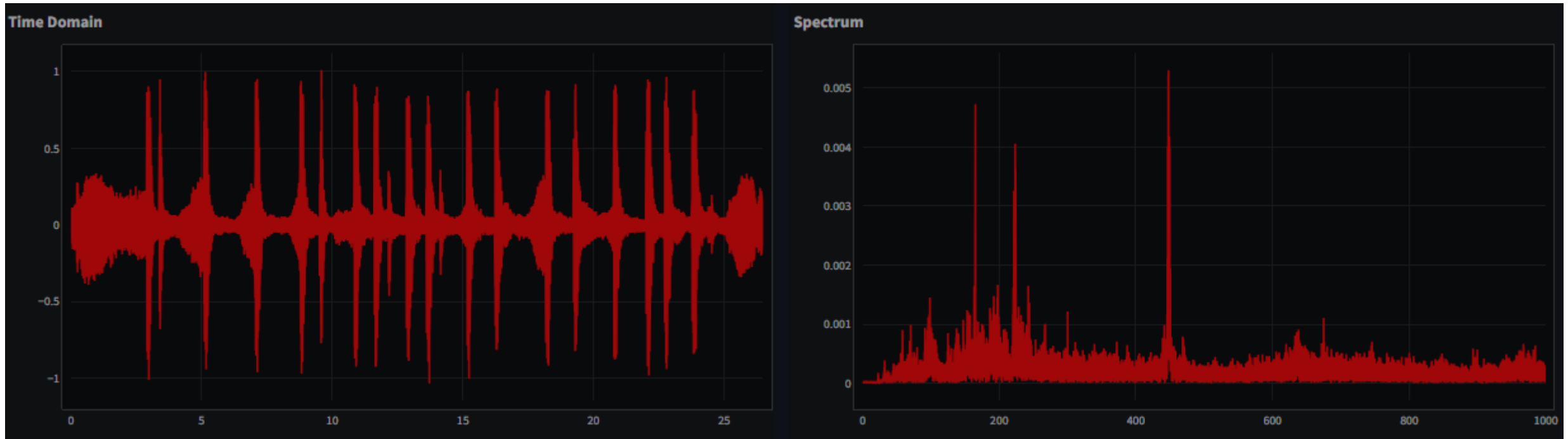
Note : Old equipment disposal/re-manufacture cost/revenue is not considered

Note : Initial payment

Streamed Data



Acoustics



MFG AI Agent

>

Deploy

Agent : [MRO] Waiting for Input ...

Stop Speaking

Chat History ▾

Config ^

AG001046900: 2025-07-09 10:24:10.298396

Switch to the causes of pump failure.

AG001046900: 2025-07-09 10:23:41.282693

Any spare parts available?

AG001046900: 2025-07-09 10:23:12.068425

As the pump been tested after the service.

3. Improper Installation: Many failures stem from faulty installation, such as incorrect pipe alignment or insufficient support, which can induce stress on the pump [doc4][doc5].

4. Fluid Characteristics: The properties of the fluid being pumped, such as excessive viscosity, gas or air content, can significantly impact pump performance .

5. Electrical Issues: Problems like low voltage, overloaded power supply, or short circuits in the motor can also contribute to pump failure.

Regular maintenance and monitoring can help prevent these issues and ensure the pump operates efficiently.

Agent: 2025-07-09 10:23:46.866184

Yes, it is recommended to always keep a set of spare parts on hand for Kirloskar pumps to ensure uninterrupted service. Essential spare parts include a set of ball bearings, casing rings, and gland packing rings or mechanical seals. When ordering spare parts, it's important to provide the type, size, and serial number of the pump as stamped on the number plate [doc1].

Agent: 2025-07-09 10:23:17.818917

After servicing, it is recommended to conduct a full running test of the pump to check for any faults in performance compared to its original specifications. This testing helps ensure that the pump operates correctly and efficiently following maintenance [doc1]. Additionally, any necessary adjustments or recalibrations of measuring instruments should also be performed during this process to maintain accurate performance monitoring [doc1].

Agent: 2025-07-09 10:23:58.513201

Input Mode

Microphone ▾

Output Mode

Speaker & Di... ▾

AIModel

gpt-4o-mini ▾

View Mode

Chat ▾

Chat History to Retain

10 ▾

Context Window Size

3 ▾

Destination Language


English ▾

Agent : [MRO] Waiting for Input ...

Stop Speaking

Chat History ▾


Config ▾

 **Agent:** 2025-07-09 10:24:17.566195


Causes of pump failure can include a variety of issues that affect the pump's performance. Here are some common causes:

1. **Suction Issues:** Problems such as a choked suction pipe or foot valve, insufficient submersion of the suction pipe, or too many bends in the suction line can hinder the pump's ability to draw in liquid effectively [doc1][doc3].
2. **Mechanical Failures:** Components such as bearings, casing rings, or impellers may wear out or become damaged. Issues like clogged impellers, worn casing rings, or misaligned couplings can lead to mechanical failures [doc2][doc3].
3. **Improper Installation:** Many failures stem from faulty installation, such as incorrect pipe alignment or insufficient support for the piping, which can induce stress on the pump [doc4][doc5].
4. **Fluid Characteristics:** The properties of the fluid being pumped, such as excessive viscosity, gas or air content, or high temperatures, can negatively impact pump performance .
5. **Electrical Issues:** Problems like low voltage, overloaded power supply, or short circuits in the motor can also contribute to pump failures [doc2].


Regular maintenance and monitoring can help prevent these issues and ensure the pump operates efficiently.

 **AG001046900:** 2025-07-09 10:24:10.298396


Switch to the causes of pump failure.

 **Agent:** 2025-07-09 10:23:46.866184

Yes, it is recommended to always keep a set of spare parts on hand for Kirloskar pumps to ensure uninterrupted service. Essential spare parts include a set of ball bearings, casing rings, and gland packing rings or mechanical seals. When ordering spare parts, it's important to provide the type, size, and serial number of the pump as stamped on the number plate [doc1].

 **AG001046900:** 2025-07-09 10:23:41.282693

Any spare parts available?

 **Agent:** 2025-07-09 10:23:17.818917

Billing / Operation Cost

>

Equipment Billing Details - Pmp New 101A

Config ▾

Start Date

2025/07/09

End Date

2025/07/09

Operating Cost Cost Breakup Data Grid View

