

Case Study:



Ingenious Techzoid

AT A GLANCE

One of the largest shipbuilding company in India wanted to centralize data of energy meters to check energy consumption in particular machine.

NEED:


To monitor the live data of power consumption for particular machine to save the energy bills.

BENEFITS:

- Energy cost savings by monitoring losses.
- Reduced greenhouse-gas emissions.
- Reduced uncertainty as future energy use is better understood.
- Reduced carbon footprint.

 HIS Group Ingenious

 www.hisgroup.in

 Development Center.
BMM 7 Behind Punjab
Mandi Board, Sector 65,
Mohali.

CHALLENGES

- IOT based Power Consumption Tracking System.
- Close monitoring of demand Levels.
- Graphical layout of Energy Management.
- Maintenance Alerts and Alarms.

SOLUTIONS

L&T Shipbuilding partnered with Ingenious Techzoid to help design a data architecture that would quickly and easily integrate data from the smart meters, relays, routers and different operational and IT systems including homegrown and legacy systems. By implementing our product portfolio, including EMS and EMS Suite, L&T has been able to integrate AMI data from the smart grid along with data from grid-asset health tracking systems, distribution grid management systems, field dispatch systems, work management systems .

RESULTS

1

5% -15% reduction in energy costs (on average) within 15 months of initial implementation.

2

Energy performance improvements of 5.6% to 27.6% over half a year.

3

Getting overall load consumption value.

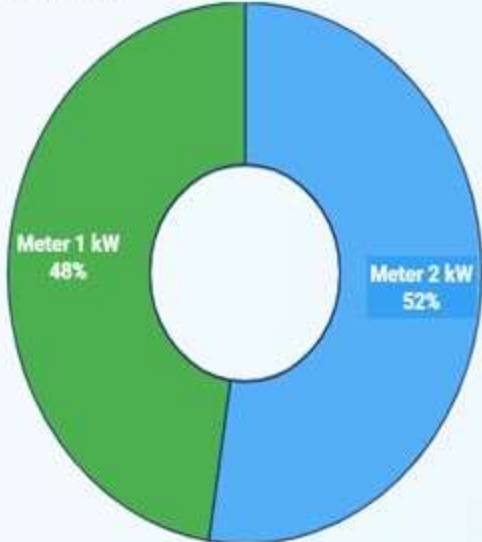
PLANT OVERVIEW

Energy Meters

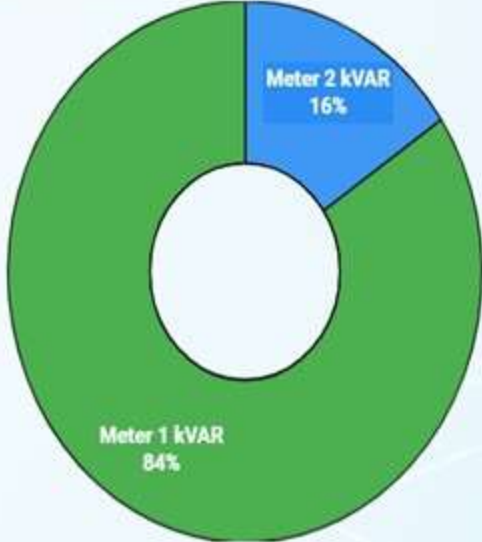


Meter Name ↑	Active Power	Reactive Power	Voltage THD	Current THD	
Meter 1	502.79 kW	30.17 kVAR	3.77 %	3.67 %	
Meter 2	554.19 kW	5.54 kVAR	3.05 %	4.39 %	

Active Power



Reactive Power



METER OVERVIEW

Power L1

180.6 kW

Power L2

182.2 kW

Power L3

179.1 kW

Consumed Power

514.8 kW

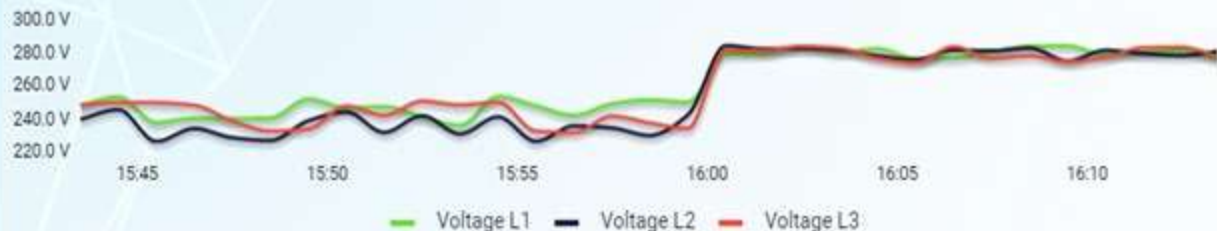
Overdrive Threshold

300.0 V

Power Threshold

1200.0 kW

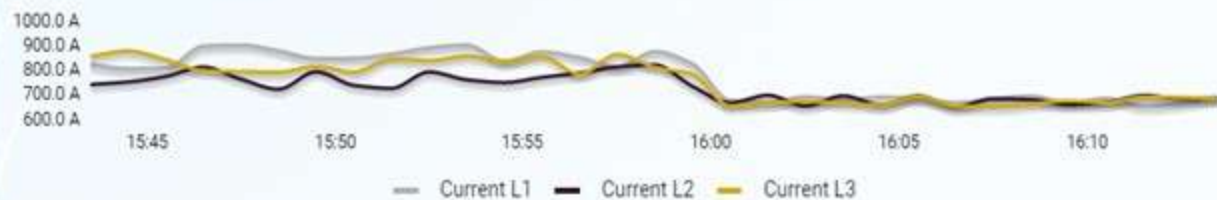
Voltage



Power



Current



Active and Reactive Energy



Voltage L1



Voltage L2



Voltage L3



Total Current



ANALYSIS

V THD

3.90 %

I THD

3.55 %

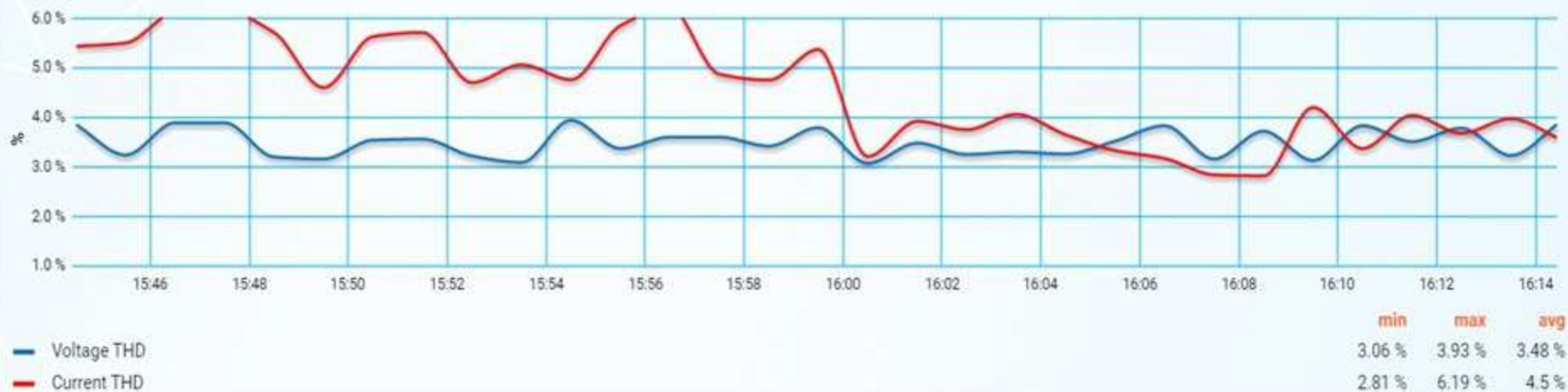
PF

0.98 pu

Frequency

54.74 Hz

Voltage THD & Current THD



Power Factor & Frequency

