

CUSTOMER STORY / FOOD & BEVERAGES

Energy Monitoring System

Case Study: Namaste India

Bringing energy use, boiler performance and machine activity into one clearer view of the plant.



Food and beverage production line · illustrative industry image

THE BRIEF

Namaste India is a food and beverage manufacturer in Kanpur, Uttar Pradesh, operating multiple boilers and production machines. The team wanted clearer visibility into energy consumption, equipment performance and rising electricity costs.

Without machine-level monitoring, it was difficult to identify excessive energy use, track peak demand, detect electrical faults and understand unexpected stoppages. IOTMATRIX implemented a connected Energy Monitoring System powered by MatrixIQ, bringing monitoring, alerts, shift-wise energy costing and remote access into one dashboard.

THE OUTCOME

8 Boilers monitored	12 Machines monitored	459 Abnormal power events detected*
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*The case study notes 459 abnormal power events detected during one monitored window. Savings and other performance improvements should be validated against the plant's measured baseline.

01 / THE CHALLENGE

The team could see the bill, but not the full picture

Monthly electricity bills showed the total amount due, but did not make it easy to identify which boilers and machines were using the most energy or how costs changed by shift.

KEY ISSUES RAISED

- Boilers and machines could run above rated limits without a clear usage history.
- Energy consumption and cost were not visible circuit by circuit or shift by shift.
- Night-shift operations were difficult to check remotely.
- Peak-demand penalties were often discovered only after the bill arrived.
- Stoppages, recurring mechanical issues and parts failures were not consistently recorded.
- Electrical trips, overloads and supply issues were difficult to trace.

THE ON-SITE AUDIT

IOTMATRIX reviewed equipment operation with plant personnel and examined monitoring needs across shifts, electrical condition, operating practices and maintenance-related issues.

14 Problems identified	8 High priority	6 Medium priority	0 Alerts configured at audit
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The supplied audit report marked all 14 listed issues as open at the time of the audit.

02 / WHAT THE AUDIT REVEALED

The missing information was hiding the causes

The audit translated day-to-day problems into monitoring gaps: what was happening, where it happened and what information the team needed to respond.

WHAT WAS HAPPENING	WHAT WAS NOT CLEAR
Boilers consuming above rated limits	Which boilers, how often, and the cost impact
Demand moving toward the peak limit	No early warning before a possible penalty
Unusual power events during operation	The monitoring window captured 459 abnormal power events
Machines stopping without a consistent record	Stoppage reason, duration and energy impact
Equipment running under abnormal load	Early signs of wear or overload
Parts failing and causing breakdowns	Trend data to spot repeat problems
Maintenance triggered reactively	Which units need attention and when
No shift-wise energy view	How day and night shifts compared in cost

KEY TAKEAWAY

Many issues were not new. They had simply been difficult to measure, spot early and trace to a particular machine, shift or event.

03 / THE SOLUTION

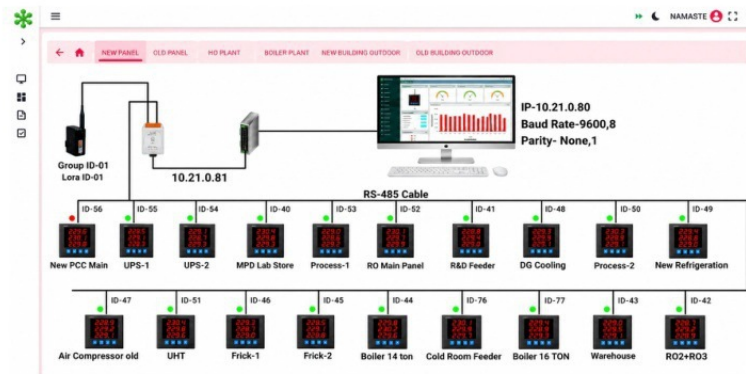
A connected system designed around the plant

IOTMATRIX designed a wireless, PLC-based monitoring setup to fit the operating plant and reduce the need for heavy cabling or disruptive installation work.

- Wireless PLC-based system supports installation in an active plant.
- Relay input controllers capture running and stopped status for boilers and machines.
- Incoming meters measure total plant power and power quality to support demand tracking.
- MatrixIQ brings monitored data together in one place, without manual collection.

BOILER PLANT MONITORING

Plant-level view connecting process equipment, flow points and monitoring signals.

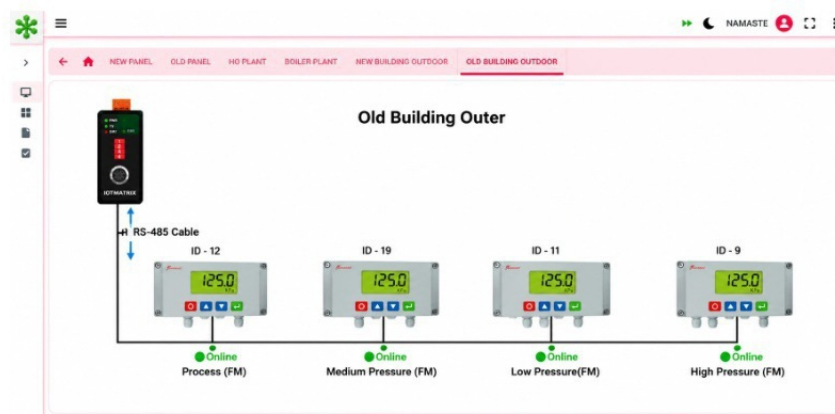


Boiler and process monitoring layout

BUILDING AND ELECTRICAL MONITORING



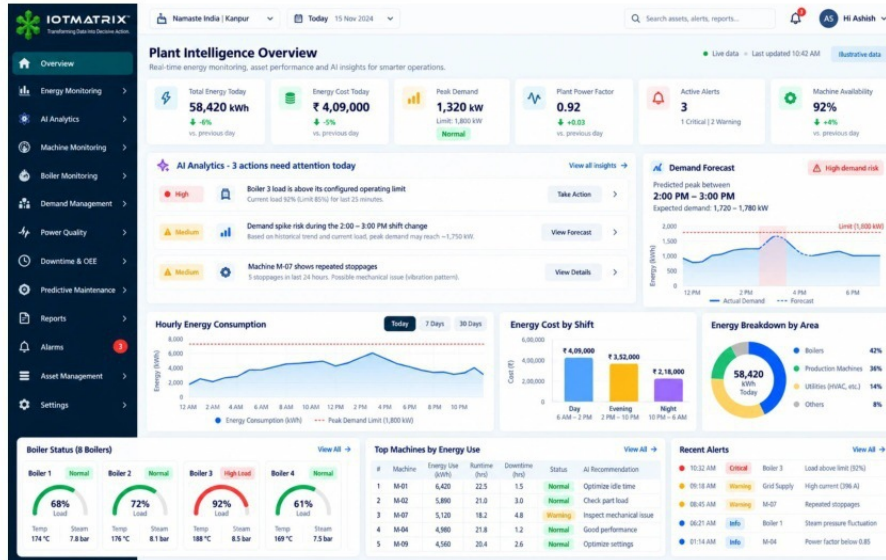
OLD BUILDING OUTDOOR MONITORING



04 / ONE VIEW FOR THE TEAM

Live monitoring, alerts and trends in one dashboard

The MatrixIQ dashboard brings energy readings and equipment status into one view so managers can review plant performance remotely, including during night shifts.



Illustrative MatrixIQ dashboard visual. Values shown are mock-ups and should not be interpreted as verified site measurements.

WHAT THE MONITORING VIEW SUPPORTS

- Energy and cost: Review energy use for all 8 boilers and machines, with shift-wise comparisons and automated reports.
- Equipment status: Track running, idle or stopped status and record stoppage reasons where configured.
- Demand and power quality: Review total plant power, power quality and peak-demand status to help the team respond sooner.
- AI-supported insights: Use trend analysis, chatbot interaction and fault alerts to help investigate unusual conditions.

FROM DATA TO ACTION

A shared view helps plant teams compare readings, investigate anomalies and decide where to focus attention.

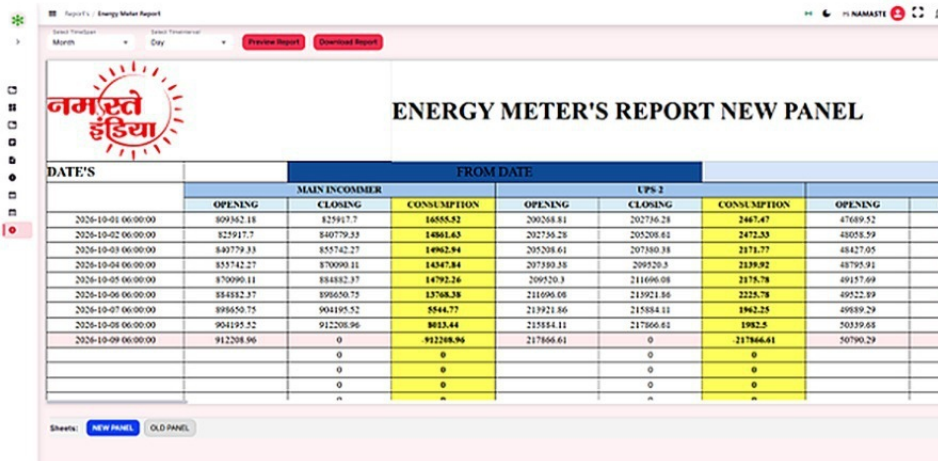
05 / REPORTING AND VISIBILITY

Turn readings into decisions

Automated reports make energy use and plant performance easier to review, compare and investigate.

ENERGY METER REPORT

Meter readings and consumption by panel.



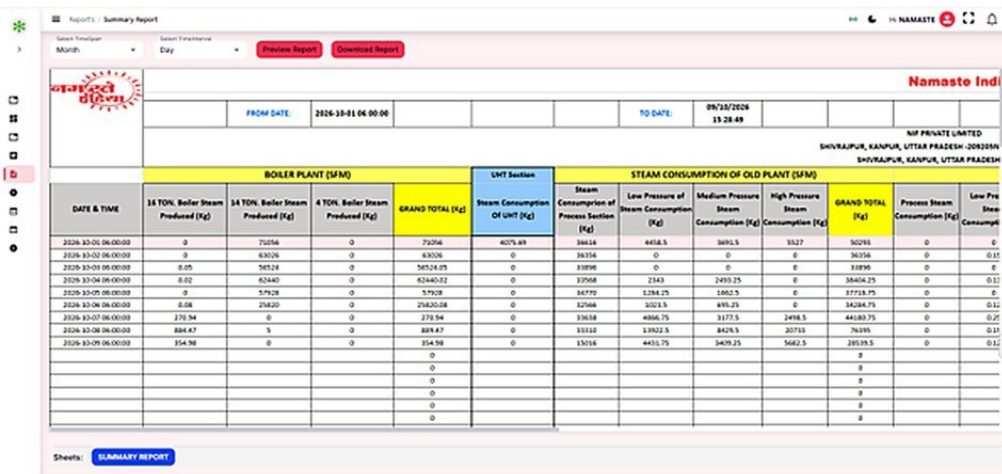
ENERGY METER'S REPORT NEW PANEL

DATE'S	FROM DATE					
	MAIN INCOMMER			UPS-2		
	OPENING	CLOSING	CONSUMPTION	OPENING	CLOSING	CONSUMPTION
2026-10-01 06:00:00	809162.18	825917.7	16855.52	200268.91	202736.28	2467.37
2026-10-02 06:00:00	825917.7	840779.33	14861.63	202736.28	205208.61	2472.33
2026-10-03 06:00:00	840779.33	855742.27	14962.94	205208.61	207180.38	2171.77
2026-10-04 06:00:00	855742.27	870090.11	14347.84	207180.38	209520.3	2339.92
2026-10-05 06:00:00	870090.11	884382.37	14292.26	209520.3	211696.08	2175.78
2026-10-06 06:00:00	884382.37	898650.75	13768.38	211696.08	213921.86	2225.78
2026-10-07 06:00:00	898650.75	904195.52	5544.77	213921.86	215884.11	1962.25
2026-10-08 06:00:00	904195.52	912208.96	8013.44	215884.11	217866.61	1982.5
2026-10-09 06:00:00	912208.96		912208.96	217866.61		217866.61

Energy meter report supplied for the case study

BOILER AND PLANT SUMMARY

Plant-level reporting for boiler output and steam consumption.



Namaste India

FROM DATE: 2026-10-01 06:00:00 TO DATE: 09/10/2026 15:28:49

NIP PRIVATE LIMITED
SHIVRAJPUH, KANPUR, UTTAR PRADESH-208009
SHIVRAJPUH, KANPUR, UTTAR PRADESH

DATE & TIME	BOILER PLANT (SFM)				STEAM CONSUMPTION OF OLD PLANT (SFM)							
	14 TON. Boiler Steam Produced (Kg)	14 TON. Boiler Steam Produced (Kg)	4 TON. Boiler Steam Produced (Kg)	GRAND TOTAL (Kg)	Steam Consumption Of Unit (Kg)	Steam Consumption of Process Section (Kg)	Low Pressure of Steam Consumption (Kg)	Medium Pressure Steam Consumption (Kg)	High Pressure Steam Consumption (Kg)	GRAND TOTAL (Kg)	Process Steam Consumption (Kg)	Low Pre Steam Consumpt
2026-10-01 06:00:00	0	75056	0	75056	6075.89	38614	4418.3	36915.5	3127	50291	0	0
2026-10-02 06:00:00	0	63026	0	63026	0	38156	0	0	0	38156	0	0.15
2026-10-03 06:00:00	0.05	54024	0	54024.05	0	33996	0	0	0	33996	0	0
2026-10-04 06:00:00	0.02	62440	0	62440.02	0	37968	2343	2493.25	0	38404.25	0	0.11
2026-10-05 06:00:00	0	57928	0	57928	0	36772	1284.25	1862.5	0	37718.75	0	0
2026-10-06 06:00:00	0.08	21820	0	21820.08	0	32044	2021.5	490.25	0	34055.75	0	0.12
2026-10-07 06:00:00	270.34	0	0	270.34	0	33618	4806.75	3177.5	2498.5	44083.75	0	0.25
2026-10-08 06:00:00	884.87	0	0	884.87	0	33322	13922.3	8426.3	20713	76955	0	0.31
2026-10-09 06:00:00	354.98	0	0	354.98	0	35016	4431.75	3479.25	5682.5	28519.5	0	0.12

Boiler and plant summary report supplied for the case study

Report screenshots contain operational data. Check dates, units and source-system values before reusing individual readings externally.

06 / NEXT STEPS

Build on visibility with continuous improvement

With connected monitoring in place, Namaste India has a stronger foundation for managing energy use and responding to equipment issues earlier.

OPPORTUNITIES FOR CONTINUED IMPROVEMENT

- **Boiler efficiency review:** Compare each boiler with its rated limit and identify load-sharing or maintenance opportunities.
- **Peak-demand planning:** Review peak periods and plan equipment start-up schedules to stay within the configured limit.
- **Predictive maintenance:** Use load and power-quality trends to flag possible issues before they cause downtime.
- **Broader utility coverage:** Extend monitoring to more machines and utilities such as water and solar, where useful.
- **Production-linked energy tracking:** Measure energy per unit produced and review performance regularly.

WANT SIMILAR VISIBILITY IN YOUR PLANT?

IOTMATRIX helps manufacturing teams connect equipment, monitor energy use and turn plant data into practical action.

[BOOK A DEMO](#)[CONNECT WITH US](#)

CUSTOMER

Namaste India Pvt. Ltd. | Food and Beverages | Kanpur, Uttar Pradesh | Platform: MatrixIQ

CASE STUDY NOTE

The case study documents monitoring coverage and 459 abnormal power events detected during one monitored window. No quantified energy-cost saving is claimed here because a verified before-and-after baseline was not supplied.