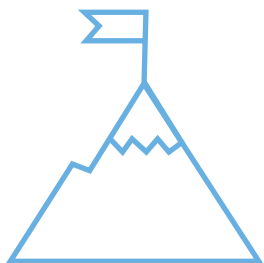# LTIMindtree

Case study

Reducing overrun costs through energy efficiency solution using Industry 4.0 standard

The client is a US-based multinational corporation that develops medical devices, pharmaceuticals, and consumer packaged goods.

The challenges involved in building a comprehensive energy management system for the client's facilities included:

- ☑ Limited availability of electrical circuit design made energy consumption tracking difficult.

- ☑ Assets were spread across multiple buildings at the manufacturing site, making it difficult to monitor and analyse energy profiles.

- ☑ Unmonitored energy consumption at a granular level led to wastage and energy cost overruns.

- ☑ The absence of dedicated energy measuring devices made it difficult to segregate energy consumption within facilities.

- ☑ The unavailability of updated electrical drawings made it challenging to trace electrical supply for machines and facilities.

Business Challenges

LTIMindtree Solutions

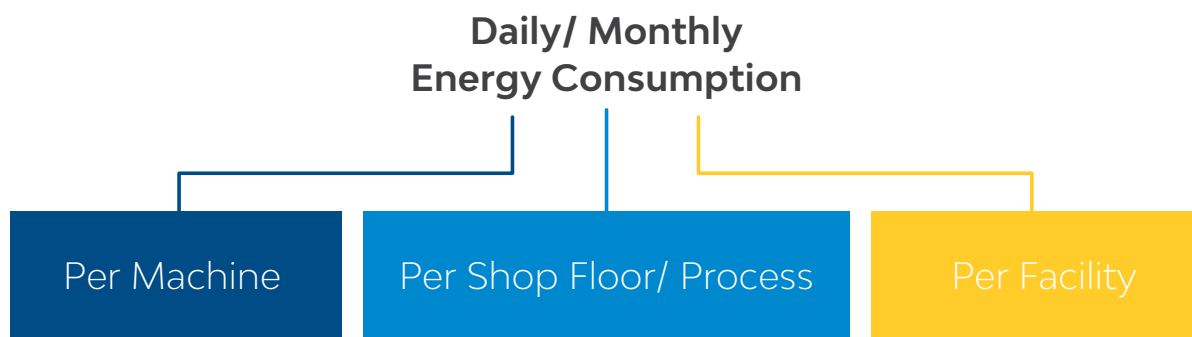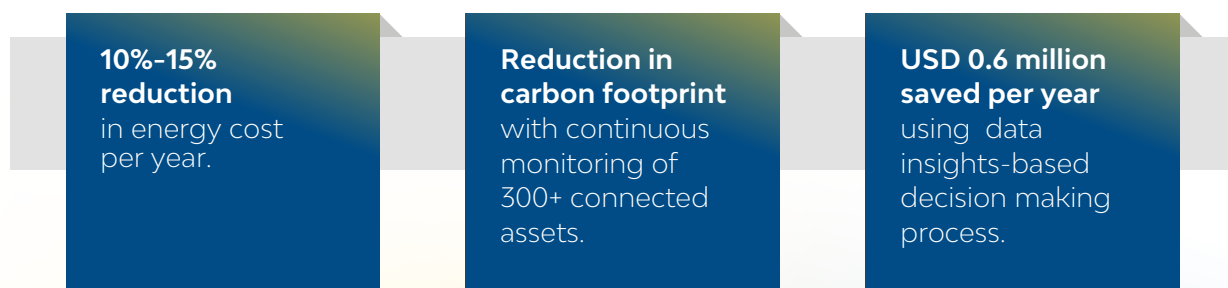| Connected multiple assets to gather energy data after careful assessment of Internet of Things (IoT) based Wi-Fi sensors and smart meters. | Enabled real-time collection of energy consumption data using Wi-Fi-enabled sensors. | Ensured reliability and completeness of data captured and provided alternate methods of collecting data in case of sensor malfunction. | Generated an energy profile through data collected and segregated energy usage on asset, process and facility level. | Designed and implemented a descriptive analysis to provide intuitive dashboards with actionable insights for cost savings. | Installed alarms that warned of high energy consumption from over usage, unattended maintenance schedules and operational inefficiencies in the system. |

KPIs Monitored

Daily/ Monthly Energy Consumption

Per Machine	Per Shop Floor/ Process	Per Facility

Business Benefits

10%-15% reduction in energy cost per year.

Reduction in carbon footprint with continuous monitoring of 300+ connected assets.

USD 0.6 million saved per year using data insights-based decision making process.