

# Energy Manager by L&T Technology Services

Achieve ISO 50000/50001 Compliance and Save on Overall Cost of Energy

## Track consumption, improve efficiency & balance energy resources

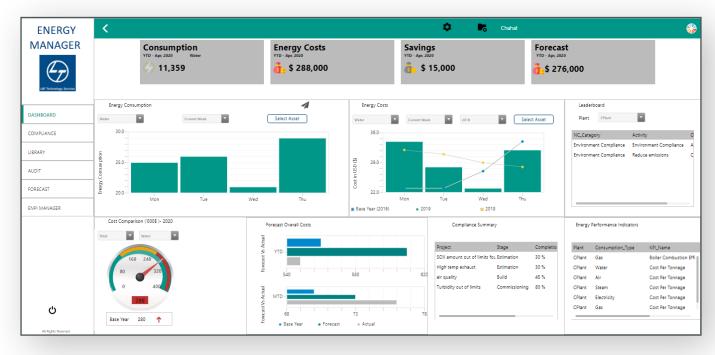
Manufacturing enterprises are prioritizing the implementation of energy efficient processes through the reduction of resource consumption, usage of green energy and compliance with environmental mandates. Visibility of resource utilization across energy categories such as water, air, natural gas, electricity and steam is key to improving your energy map, complying with statutory regulations, saving on energy cost and creating a sustainability strategy.

Energy Manager is a compliance and standards driven solution that helps track energy losses across plants. It provides visibility into utilities and plant equipment to drive decision support in energy management.

This tool addresses the challenging and manual process of identifying corrective actions and instead provides definitive assessment, actionable insights and control over the entire plant's energy management.

Energy Manager helps track consumption & KPIs, compare/benchmark performances, forecast energy need, audits driven initiative tracking and closure of non-compliances.

Built on ThingWorx, the Industry leading IIOT platform, the Energy Manager can connect to various equipment including meters, PLCs, SCADA, historians and capture accurate energy consumption data in real-time. ThingWorx also enables siloed systems to connect and collect information such as cost of energy, production plan for forecasting energy need.





## Capabilities / Features

- Energy Audit- ISO 50000 / 50001 Compliance ready
- Compliance Tracking & Closure
- · Monitoring & Benchmarking
- · Energy Balancing
- Energy Forecasting
- Losses/Cost Saving/Investment Tracking
- · Analysis & Insight
- Flexible Plant & Asset Modelling
- Drill-down to various levels in asset hierarchy
- Metering & Connectivity

## **Benefits / Business Improvements**

- · Track & eliminate loss and inefficiencies
- Compare and benchmark similar equipment/ area/ plant consumption
- Elimination of compliance related nonconformities/penalties
- · Forecast and align policies accordingly
- · Improve GRI and Integrated Reporting
- Cost savings to the tune of YoY 10-15%

### **Success Stories**

#### Real-time energy consumption monitoring across 3 plants for a major Latin American F&B client

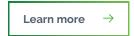
- · Initiated real-time monitoring and identified high consumption utilities
- · Identified potential energy savings amounting to 2% YoY
- Reduced OPEX cost in terms of Water, Air, Gas, Electricity & Steam (W.A.G.E.S) usage by 20%

#### **Energy savings in Waste Heat Recovery System**

- · Created calculation sheets, PFDs & P&IDs, datasheets, vendor specifications, schematics, and project report
- Reduced natural gas consumption by 200 lb/hr. which translated into CO2 reduction and cost avoidance
- Spared 4 steam heat exchangers and reduced hot water boiler requirement by 50%

#### End-to-end Energy management platform for multiple plants in North America

- · Energy monitoring across multiple resource types & consumption benchmarking for equipment type
- Water mass balancing across plant and tracking losses
- · Energy efficiency project life cycle tracking and benefit monitoring



Stone Zhang | stzhang@ptc.com Suryateja MVR | Suryateja.MVR@Ltts.com