L&T Technology Services

WATER, AIR, GAS, ELECTRICITY, STEAM (WAGES)

INDUSTRIAL ENERGY MANAGEMENT PROGRAM

STATE OF THE MARKET

Current trend at global level has created a significant pressure business functions there by demand for wiser capital expenditure allocation and optimized Operational expenditure focuses on solution meeting the cost pressure and enhance productivity With energy prices in a constant state of flux, operating plants across industries are struggling to optimize their Water, Air, Gas, Electricity and Steam (WAGES) consumption. The answer for many of these organizations lies in identifying energy-saving opportunities through large-scale audits and optimizing plant operations, while mapping overall capital expenditure. With these strategies already gaining buy-in, the need for WAGES management services is bound to rise.

At this juncture, manufacturers are exploring avenues to boost competitiveness within a customer-dominated business landscape with little scope to optimize selling prices. While utility costs are largely beyond their control, reducing operating costs and overall production expenses have been identified as challenges which can be surmounted.

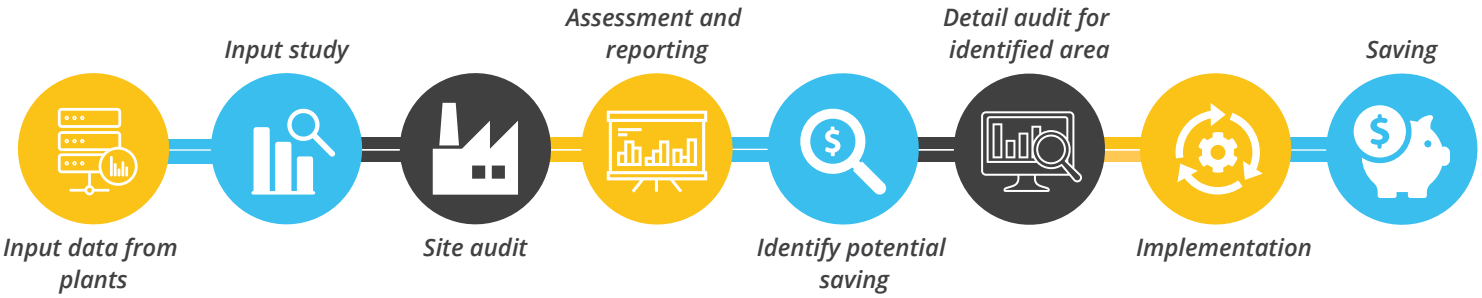
With legacy systems as a part of most companies' core infrastructure, a natural starting point for them is to transition to smarter, digital outfits with advanced capabilities. Accordingly, the demand for WAGES management services has skyrocketed. Manufacturers are especially keen on using customized dashboards to extract relevant data from multiple sites, establish benchmarks, streamline operations, identify cost optimization opportunities, and enable comprehensive annual budget planning.

SERVICE OFFERINGS

L&T Technology Services (LTTS) has end-to-end solutions for identifying, auditing, monitoring, engineering, deploying, and metering WAGES. Our industry experience and expertise includes measuring data on-site, conducting analysis, site auditing, producing assessments and reports, and consulting on potential energy-saving schema.

We specialize in implementing energy conservation measures (ECM), monitoring plant key performance indicators (KPIs), designing energy monitoring and metering solutions (EMMS) complete with a digitalized dashboard for KPIs, water recycling and reuse, and enterprise-level cloud hosting for all data collected.

WAGES PROGRAM



KEY DIFFERENTIATORS

- Deep domain experience and expertise in providing end-to-end solutions with flexible engagement models and commercial innovations
- End-to-end support for engineering and implementation
- Extensive global reach with a geographically distributed resource base and alliances with leading technology partners
- Proactive approach to sustainability initiatives as well as health, safety, and environmental management system considerations
- Technology-driven with information security and quality management system
- Delivers cost-effectiveness beyond labor arbitrage

BENEFITS

- Boost operational efficiency by leveraging our service suite
- Identify and analyze energy-saving areas in each site through phase-based audits
- Oversee plant operations and ensure real-time monitoring with our data analysis services

CASES

Completed audits for 28 sites of a global company manufacturing consumer packaged goods, in four months. Identified potential opportunities for energy conservation worth $18.2 million. Aligned and cloud-hosted the audit data at the enterprise level. Compiled and estimated CAPEX/OPEX opportunities with a ROI proposal.

Evaluated and consulted on the energy consumption of a waste heat recovery system. Reduced natural gas usage by 200 lb/hr and hot water boiler requirements by half. Delivered calculation sheets, process flow diagrams (PFDs), datasheets, vendor specifications, and schematics.

Optimized a zero liquid discharge facility for a major beverage company. Designed and installed system across countries and reduced operational expenditure. Achieved cost estimate accuracy of nearly 10%, and savings from design optimization between 20% and 25%.

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ENGINEERING **THE CHANGE**