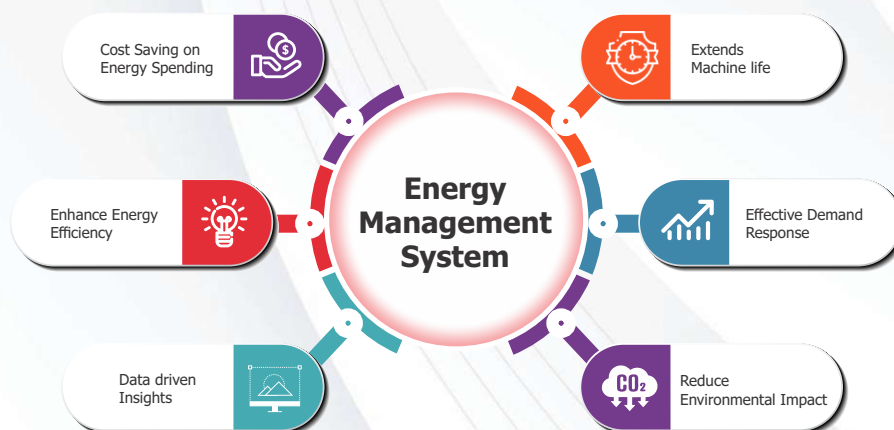# Energy Management System

Monitor Energy Consumption Remotely, Anytime

HPL Energy Management System is designed for industries, MSMEs, and commercial facilities that need tighter control over electricity consumption and operating cost across one or many sites through a web-based platform with dashboards, reports, and alerts.

It brings monitoring, analysis, and alerts into one view so customers can spot deviations early and improve day-to-day energy discipline and enabling them with valuable insights to take actions to:

Applications

- Factories and MSMEs aiming to reduce electricity overheads.
- Offices, commercial buildings, hotels, and institutions tracking electricity usage.
- Distributed assets and discrete loads requiring regular oversight.
- Sub-tenant billing where electricity needs to be tracked by area/occupant.
- Sites with distributed generators (DG) and renewable sources to track supply and usage.
- Multi-location retail chains needing central monitoring across sites.

Benefits

- Improve cost visibility, using consumption and tariff-based cost calculations.
- Catch abnormal usage early & get alerts for penalties like exceeding Maximum Demand (MD) and low Power Factor (PF) before they occur.
- Easily track and assess the cost of individual load points
- Make performance reviews easier, using historical graphs and trends.
- Support sustainability reporting, with emissions analysis and carbon monitoring options.
- Manage distributed operations, by viewing live data from any location with internet access.
- Extend machine lifespan through alerts before potential electrical breakdowns.

Features

- Real-time energy monitoring reduces costs, and improving performance.
- Web-based monitoring for energy consumption, cost, operational efficiency and system status.
- Data can be viewed on Desktop as well as on Mobile with internet access.
- Solution provide Estimated transformer losses, enabling users to identify inefficiencies and take timely corrective action.
- Real-time personalized dashboards with consumption reports for energy groups.
- User configurable spreadsheet based reports and downloadable reports via spreadsheet.
- Tariff module for cost calculations.
- Target demand monitoring (where applicable).
- Alarm for critical parameters.
- Reports can be exported to different formats i.e. PDF & Excel i.e.
  - Energy Consumption: daily, weekly , monthly
  - Maximum demand: daily and interval-wise saving
  - Cost Analysis report of Main, DG & Solar meter : daily, weekly , monthly
  - PF Report
  - Transformer Analysis Report
  - Meter Data view- active/Inactive meter report
  - Bill report for Energy consumption & billing information across periods
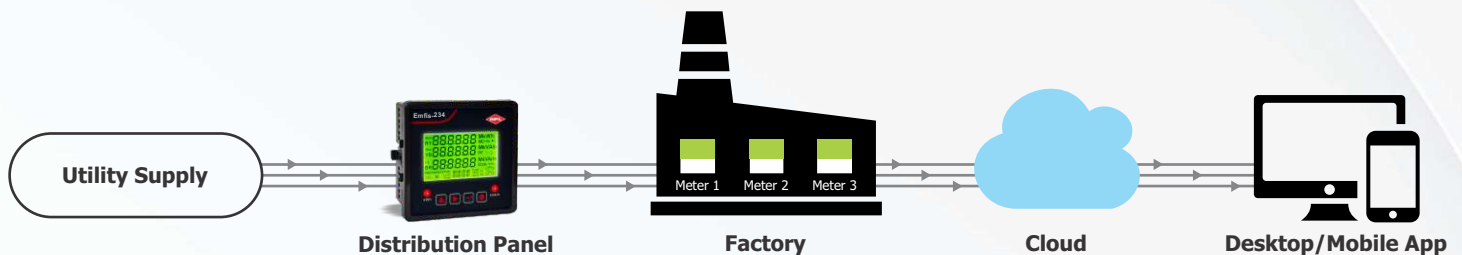 - Carbon footprint Analysis

Key Requirement

To ensure a smooth installation and get the best from HPL EMS, following are the prerequisites:
- Internet connectivity.
- Site readiness as per your convenience to install the solution.
- Space to install the solution.
- Electricity bill copies to better understand your energy profile.
- Load point information (ratings and type of load).

How it works

Utility Supply → Distribution Panel → Factory (Meter 1, Meter 2, Meter 3) → Cloud → Desktop/Mobile App