

Excellence in Energy Management...

CASE STUDIES

A Case Study of a Fuel Injection Equipment Unit - in the Automobile industry

Introduction:

The manufacture of Fuel Injection Equipment is a power intensive process, in which the component of power cost can be as high as 20% of the total manufacturing cost.

One of India's leading automotive manufactures based in south India, achieved a break through in reducing power costs. One of the many measures they have taken is to optimise energy usage by introducing Conzerv's eLAN[®] Energy Management System for continuous, real-time, on-line measurement of energy consumption. This System played a key role in providing data to further improve their energy management program.

Positive impact of eLAN[®] on Energy Management Practices:

Previously, the method deployed to collect electrical data was manual, erroneous and also prone for human errors. To overcome such inconsistencies the company switched over to eLAN[®] (Energy Management Systems), which provided them with accurate on-line real time data centrally.

Power Management and improvement in operational efficiency:

The study of historical trends of key energy and power parameters helped to identify area and explore possibilities for improvement.

In the absence of eLAN[®] (Energy Management Systems), it was difficult to get accurate data on the process, which needed fine-tuning and therefore, was tougher to implement corrective action.

As a result, due to unbalanced load conditions the breaker would trip frequently. By using eLAN[®] (Energy Management Systems) the customer was able to monitor the currents in all three phases on line in real time. Their loads were distributed evenly on all the three phases and tripping was prevented. Apart from reducing manpower, accurate data was obtained. Earlier three people were involved for data collection, which could then be reduced.

■ Automobiles

■ Beverages

■ Cement

■ Chemicals

■ Engineering

■ Fertilizers

■ FMCG

■ Glass

■ Hotels

■ Hospitals

■ IT

■ Paints

■ Paper / Pulp

■ Petrochemicals

■ Pharmaceuticals

■ Textiles

■ Shoes

■ Steel

■ Sugar

■ Wind Mills

■ Shopping Malls

Conzerv Systems Pvt Ltd
 (formerly Enercon Systems Pvt Ltd)

Before eLAN[®] was installed the company was running on a low PF (0.75). By having this system in place the customer was able to monitor PF and over a period of time the PF had improved to 0.95 by adding required capacitor bank.

The company was benefited in the following ways by using Conzervs' eLAN[®] :

- Able to plan load distribution
- Manage and control kVA Demand within sanctioned limits.
- Provide instantaneous MIS reports for corrective & preventive action.

How they used eLAN[®]:

The company monitors "Max Demand in kVA" at the Main Incoming Supply point through Conzerv's Smart Demand Controller EM 3460. The predictive feature of this product helps to take instantaneous decisions on the utilization of spare demand and control of loads to avoid crossing preset demand targets.

These meters are connected to a dedicated PC, which has software that generates reports on Trends, Mimics, Single Line Diagram etc. for analysis purposes.

These MIS reports essentially give information on day-wise, shift-wise energy consumption, online Monitoring & Centralised Monitoring data help quicker analysis & taking fast decisions.