

Excellence in Energy Management...

CASE STUDIES

A case study of an Automobile Auxiliary Industry

The Conzerv series of Excellence in Energy Management – a Case Study in the Automobile Auxiliary Industry.

Introduction:

The manufacture of Cast Iron alloy castings is a power intensive process, in which power cost can be as high as 25% of the manufacturing cost.

Pearlite Liners Pvt. Ltd., situated in Shimoga, India, is a progressive company with an enlightened management. The company has increased its competitiveness in a difficult market by adopting various cost-effective measures.

One of the keys to their success has been a determined effort to reduce power cost. They took a decision to introduce Conzerv's eLAN[®] Energy Management Systems for continuous, real-time, on-line measurement of Energy consumption. This decision played a key role in improving their energy management program.

A lack of accurate, continuous energy data from earlier measuring methods had made the company switch to eLAN[®] which would provide up-to-the-second data, accurately and reliably.

In just 9 months of using the eLAN[®] Energy Management Systems, they achieved an annual saving of 2.1% in their energy cost.

The result was that the investment made by the company paid back in just 9 months, apart from yielding recurring energy savings, month after month.

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

"Installation of Conzerv's eLAN[®] in our industry, has shown us the areas where energy can be saved and also to fine-tune our manufacturing practices thereby allowing us to save power and to increase productivity. eLAN[®] has helped us to use power in the most efficient way and reminds us again & again that **POWER IS MONEY**"

says Mr.K.C.V. Renuka
 Supdt., Electrical.

■ 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)

Some specific benefits:**Power Management and improvement in operations efficiency:**

The study of historical trends of key energy and power parameters helped to identify scope for improvement e.g. Night-time consumption could be monitored more effectively and controlled closely to align with average consumption patterns.

In the absence of eLAN[®], it was difficult to get accurate data on which process/stage needed fine-tuning and therefore, it was tougher to take a control decision.

By using all the versatile features of eLAN[®], the company was able to plan load distribution, manage and control kVA within sanctioned limits and monitor quality of power supply to enable reliable and timely feedback to the supply utility.

How Pearlite Liners (P) Ltd., uses eLAN[®]:

The company monitors demand at the main incoming supply point through Conzerv's Smart Demand Controller EM 3460. The predictive feature of this product helps take instantaneous decisions on the utilization of spare demand and helps control of loads to avoid crossing present demand targets.

At the induction furnaces, the company uses Conzerv's Power and Energy Monitor which measures all key parameters with the following benefits:-

1. Power-factor : To operate the equipment at higher efficiency
2. kW / kVA : Utilising the equipment's at specified optimum levels
3. Voltage : Supply voltage maintained in the specified safe limits
4. Usage period : Improvement in equipment utilisation

These meters are connected to a dedicated PC which has software that generates reports according to Pearlite's requirements. These MIS reports essentially give information of specific energy consumption (kWh per unit of production) Daywise & shiftwise. The next step being worked on is a consolidated report that will present historical data with reference to the operational sequence so that areas requiring improvement in operations can be identified.