

Save Power with Pumping Energy Audit

The time has gone when industries were being established and the Government gave them numerous benefits and subsidies. There is a growing energy crisis causing the energy rates to skyrocket. It is very obvious that energy is a primary concern for any industry.

There are industries, which consume a lot of energy to meet their process & pumping requirements. Surprisingly, in most of these industries, the consumption is higher than the requirements and they are paying heavily on electricity bills. Sometime the reason is simple and sometimes it is complex. Kirloskar has audited various industries like steel, plastic, pipes, engineering, etc. These audits have brought Kirloskar to the conclusion that more or less; everywhere the consumption pattern is substantially higher as compared to the actual requirements. With a proper study & analysis of requirements and taking corrective measures, the cost can be brought down substantially.

The audit is a synchronized efforts comprising of multistage activity. A team of experienced engineers study the processes, their patterns and requirements. The team observes the actual conditions like total operating head, discharge, current drawn, consumption of input power, power factors, etc. The energy consumption pattern of these units is specifically taken into notice. The capacity, load and requirement coupled with other variables are taken into account. This allows the team to find the areas for improvement.

The team forms an optimum proposal, which is prepared keeping returns on the investments as a basic criteria. This is a formal process where the team seeks the approval on their primary recommendations. When the client gives their approval to install or change or modify the pumps as per the recommendation, the team goes to the next level of execution. The next level is very comprehensive where analysis and evaluations of various elements takes place.

This allows bringing out the original energy consumption. The auditing team also reviews piping layout, its condition and sustainability. As per the findings, the client gets to know the full details and effectiveness of the audit.

The involvement of the experts doesn't end here. The team assists the customers to implement the recommendation suggested for the entire process. This practice allows the customer to become familiar with the newly implemented system and to reduce troubleshooting.

The main aim of the "Pumping Energy Audit" is to increase the efficiency level during the whole pumping process. When the pump system, which is recommended by Kirloskar's audit team is put in place, final.

Kirloskar Brothers Limited have been into the field of design and manufacturing of pumps for over a century, Suggesting a proper kind of pumping solution, that gets in tune with the specific business needs, has led the company to the mission called "Pumping Energy Audit". The objective behind this process is to reduce excessive energy consumption and curtail power bills. Undoubtedly, the main concern of a business is to reduce expenses, eliminate waste and be competitive.

This movement has received tremendous success all over the country. In many companies, the process has been already implemented successfully, thus saving energy and money. The saving in different industries are ranging from 11% to 37%, which is quite high. The most interesting part of this audit is that the cost of the project for implementing the changes is generally recovered in about two – three months. This makes it very attractive and the organization starts saving money from the early stage of the implementation process.

A view of Kriti Industries Ltd. plant, where energy audit was conducted & all recommendations have been implemented.

A glimpse of benefit achieved by a plastic pipe extrusion industry is reflected in following table:

Organization	Kriti Industries Ltd., Pithampur (MP)			
Activity	RPVC/HDPE Pipes Extrusion			
Annual Electricity Bill	Rs.270 Lacs	%age contribution of pumping		33%
	Per Audit	Post Audit	Saving	%age Savings
Actual Demand Load kW	337	217	120	36%
Energy Consumption kWh	321	201	120	37%
Annual Energy Bill (Rs. in Lacs)	89	52	37	42%
Nos. of Pumps Recommended for Replacement			26 out of 40	
Investment	Rs.3.6 Lacs	Pay-Back Period in Days		35

Undoubtedly, Kirloskar's "Pumping Energy Audit" is a success story all over and not only this, it is a humble contribution from the industry leaders towards saving of a very precious resource for the country.

Reference book:

Electrical India,
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