

CASE STUDIES



Dr. Reddy's Lab, Hyderabad

Success story on implementation of effective Energy Management measures and benefits achieved.

Introduction:

Dr. Reddy's Laboratories Ltd., is India's No.1 Pharmaceutical company delivering affordable and accessible medication to all parts of the world; and discovering, developing and commercializing innovative medicines that satisfy unmet medical needs.

A vertically integrated company with a presence in more than 100 countries, and is one of the leading generic pharmaceutical companies by revenues. Dr. Reddy's is dedicated to bringing affordable healthcare to people across the world, regardless of geographic and socio-economic barriers.

The CTO Unit-3 manufacturing plant located in Hyderabad, India where the energy management methods were initiated is spread in 12 acres with employee strength of above 600.

Electrical power is purchased from the State Electricity Board and installed capacity of captive power plant capable to deliver 2150 KVA.

Monthly Energy consumption is 500,000 kWh that is drawn from Electricity Board supply.

Energy Management initiatives prior to the installation of EIMeasure EMS system

- Maximum Demand penalty is avoided by installing Maximum Demand controller for last 8 years.
- PF Controller and Capacitor banks had been installed helped to avoid Low PF penalties.

EIMeasure Energy Management System included 30 Nos. Multifunction Meters with ELNet 32 software with related accessories. Wireless communication method is established between the PC and Meters using RF Modems where the ELNet 32 software is installed.



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Benefits achieved

- Benefits achieved Better manpower planning 3 man hours per day is saved as all electrical data logged automatically. Hence manual data logging was completely eliminated.
- Accurate MIS reports. 2 Manager days were spent to MIS reports which was still inaccurate. Now in one click accurate MIS report is generated.
- Energy Balancing When Reddy's lab started using the EMS, 4% of losses was discovered between the incoming transformer and the distribution panel. They have also identified voltage fluctuation to the tune of 20 to 30 Volts from the transformer. The existing Transformer was with replaced by OLTC transformer and the voltage fluctuation came down to 3 to 4 Volts. The losses of 4% were reduced to 1.2%
- The Power Factor could be closely monitored at each section of the manufacturing area. Some locations PF was going below 0.9 Lag in spite of Capacitor Banks fitted. The root cause could be identified and relocation of capacitor banks corrected the low PF problem.
- Some of the critical manufacturing process was carried at temperature level of -10°C & -20°C. Accurate energy consumption could be determined at these stages with the help of EIMeasure EMS.
- Section wise or department wise energy consumption could be determined in addition to the shift wise and day wise reports.

Investment INR 0.25 Million

Payback period 5.4 months

