



## Amaravathi Textiles

Vijayawada, India

### ***ElMeasure***

***ElNet - 256 software helped continuous real time monitoring and generates accurate data for effective analysis of energy, and we could identify the wastage and save energy.***

- Amaravathi Textiles

***Monitoring energy usage in real time for individual households and common usage areas.***

***Control the voltage fluctuation***

***Accurate energy consumption could be determined***

Amaravathi Textile Group is one of the leading Cotton yarn suppliers to the textile sector. It is located at Martur, Prakasam District of Andhra Pradesh in India. Amaravathi was founded in 1984 and grew at a rapid pace to become a national company. The company has more than six manufacturing Units at same location and employs about 2500 people. Total Mill capacity is 1, 26,816 Spindles in 5 Units that Produce Quality Yarn for Global requirements.

### **Problems faced by Amaravathi textiles Unit in Martur:**

- Amaravathi textiles Unit was unable to monitor the Energy consumption.
- Maintaining healthy Power factor in all the areas of the plant was very difficult.
- The power and energy meters were connected to different load centers, but they were unable to calculate the actual consumption accurately due to manual entry.
- Technicians were to record the readings from all the monitoring locations (>200 points) and the data couldn't be utilized for any meaningful analysis.
- OE plant loads were not monitored, as meters were not installed in all the panels.
- Customer was unable to get the shift wise energy consumption data for each day. This was leading to improper evaluation of productivity versus energy consumption.
- In the absence of Demand Controller meter, the sanctioned power demand was often exceeded which resulted in paying heavy penalties. Due to this power to the plant was also tripping frequently and disrupting the manufacturing process.
- Machinery breakdown was common and they could not plan an effective preventive maintenance schedule.
- The overall cost of annual maintenance was very high.

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## Solution Components

- 125 Multifunction Meters with related accessories converters & RF Modems
- Energy Management Software ( Elnet-256 )  
Energy Billing Software

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## A smart solution

Amaravathi has installed more than 125 ElMeasure brand multi function meters at different feeders and one Demand Controller with related Software accessories like converters, RF Modems to monitor energy consumption and profile. Along with these meters over 100 Nos. of other branded meters were also networked and connected to a centralized PC. The PC is loaded with Elmeasure Energy Management Software (ELNet-256) for continuous real time monitoring of the electrical data centrally. The software presents the data in different formats for effective analysis of energy profile, to identify the wastages and energy saving opportunities of the entire Mill.

*Investment*  
**INR 10 Lakhs**  
*Payback period*  
**4 months**

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## Real Business results

Using ElMeasure's Energy Management system as a tool helped to identify the energy wastages and the scope for system improvement.

1. Now the customer can collect power and energy data from all monitoring locations automatically on a real time basis. Manual data logging is avoided and this saves more than 6 man hours per day.
2. Reports, trends and continuous data logging helps the customer to monitor the complete profile of electrical system with high accuracy. A load pattern of each feeder is being monitored separately.
3. Demand Controller was installed and programmed according to the plant load patterns. Hence the problem of power tripping and penalty has been eliminated.
4. Shift wise energy readings could be monitored separately for productivity versus consumption analysis.
5. From the OE plant to electrical room the distance is too long and due to this communication through cable was very difficult and expensive. Wireless communication has been employed to collect the data easily from the monitoring point. The wiring cost (INR 1 Lacs approximately) was saved and the maintenance of the latest system is very minimal.
6. By continuously monitoring the major and critical loads, meaningful analysis could be carried out. This has helped to plan an effective preventive maintenance schedule to avoid/ minimize the equipment breakdowns and this saves significant repair/overhauling cost.
7. The Power Factor could be closely monitored at each section of the manufacturing area. At some locations PF was going very low. EMS has helped to identify the root cause and relocation of the capacitor banks has eliminated the low PF problem.
8. MIS reports were generated with ease and with correct information. These reports can be converted to any convenient file format and can be mailed to the management.

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## For more information

To learn more about Amaravathi Textiles installation, visit :  
[www.elmeasure.com/amaravathi](http://www.elmeasure.com/amaravathi)



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### HO & Unit-I

Plot No.: 47-P, Bengaluru Hardware Park  
Huvinayakanahalli, Jala hobli  
Bengaluru North, Yelahanka Tvaluk  
Bengaluru District, Karnataka.

### Unit-III:

# 764, 4th Phase, 707, Yelahanka New Town,  
Bangalore - 560 064. INDIA  
T : +91 80 2846 1777/744  
F : +91 80 41272461  
CS : +91 80 3290 4489  
E : contactblr@elmeasure.com