



Case Study for Steel Helical Pipe Manufacturer

- 3 Million Sqft., 4 pipe production spread across 100 acres yard
- 5.3 Million Kwh consumption per month in main production unit
- Excessive energy usage in non-working hours and blind spots
- Frequent unplanned plant expansion over the past years.
- Unknown power factor, harmonics and power quality and energy disaggregation
- Inability to quantify and isolate electrical problems
- Unidentified source of input and output power disturbances

Situation



- Mandate to reduce energy and maintenance cost
- To quantify electrical parameters of major and critical production equipments
- To identify distribution imbalances in the entire plant
- Improve maintainability of production equipment
- To measure and alert users about any threshold breaches happening in the major electrical parameters like current, voltage, power, power factor, harmonics etc to ensure safety of equipment
- To quantify usage and wastage of power by shift and product

Task



- Eliminated need for unfruitful and costly energy audits
- Enforced overdue spare replacements and SLA adherence
- Quantified Specific Energy Consumption for the main product line
- Made aware the O&M team, of pre-existing blind spots in maintenance
- Alerted and eliminated earth fault and prevented the chances of fire mishaps.
- Curbed unnecessary wastage and helped to achieve energy cost savings by an average of 15 -17% over the past 3 years.

Result



Action



- Site survey done to identify the energy guzzlers
- Installed smart energy meters and monitoring hardware for the targeted equipment and networked to SEnergy Cloud
- Provided energy metrics of each product line and shift
- Quantified Duty cycle, peak and off-peak energy consumption
- Defined and quantified efficiency and conservation metrics
- Analysed the consumption, usage and wastage
- Provided
 - Visual analytics and reports
 - Real time alerts for any threshold breaches of the critical electrical parameters.