



Case Study for a Major Copper Manufacturer in GCC

- A regional leader in copper bus bars, pipes and wire manufacturing
- Operated 24X7
- Lack of a suitable system to monitor
 - Excessive off-peak energy usages and unmanaged blind spots
 - power factor, harmonics and power quality
 - supply and load disturbances
 - electrical problems
 - GHG Emissions

Wanted to achieve industry specific sustainability goals

Situation



Task



- To design a solution, which is capable of handling huge amount of energy data for the key production equipment.
- Assist the stake holders to
 - Measure and analyze various electrical parameters of critical and equipment
 - Identify hidden cost center
 - Focus on energy saving efforts
 - Develop strategies for sustainable growth
 - Avoid frequent expensive energy audits

Result



Action



- Identified load imbalances. Helped to enhance equipment safety by providing real time alerts on threshold breaches of electrical parameters
- Improved visibility and highlighted the pre-existing maintenance blind-spots through workshops and training
- Curbed unnecessary usage and enforced overdue spare replacements
- Increased power & utilization efficiency.
- Engaged continuously for cost cutting in AMC, Energy and Manpower
- SEnergy Impact:
 - Initially SEnergy was implemented for energy monitoring of 5 equipment. Then it was extended to 10 more equipment and currently it is getting implemented for the whole plant.
 - SEnergy implementation to monitor water consumption & air quality is in pipeline and is scheduled for 2026.

- Site survey done to understand the existing scenario and collect detail about the major power consuming equipment
- Designed, installed IoT based energy monitoring system.
- Installed Smart energy meters for all the major equipment to collect the data.
- Collected data were sent to SEnergy Cloud for access and analysis.
- Configured for all parameters.
- Provided energy metrics for individual equipment.
- Configured virtual meter to show the total energy metrics in the facility
- Provided Single Line Diagram through SEnergy software.
- Analysed the complete power quality with time stamps
- Provided visual analytics and reports
- Isolated and alerted O&M on wastage and loading pattern