



Case Study for a Plastic Industry

- A regional pioneer group with more than 25 years of experience in the field of plastic industry.
- Production area spread over 150,000 sqft with multiple buildings and product lines. Plant running 365x7x24
- Lack of smart metering data to identify the individual equipment consumption pattern and maintenance issues
- Only one ERP silo type software available,
- No handle on power factor and other major electrical parameters
- Energy consumption break up per product line and shift unknown
- No measures for energy conservation and equipment safety.
- Unaccounted GHG emission

Situation



Task



- Understand the energy consumption for different process, product line and per shift.
- Calculate the Specific Energy Consumption per product
- Should measure the operator efficiency, plant efficiency, yield loss and material loss across different product line.
- Need to have a single software platform to access the multiple production stages including the energy consumption and associated cost.
- Alert users about threshold breaches in real time
- To define the strategies of sustainable growth.

Result



Action



- SEnergy made possible to
 - Investigate and establish energy and material balance for the various process by evaluating the energy input and product output.
 - Ensure better equipment and operator safety by alerts.
 - Avoid opportunity costs of down time, reduced production and wastages.
 - Develop a detailed action plan to ensure a systematic process to implement energy performance measures.
 - Avoid frequent and expensive energy audits.
 - Reduce overall yearly OPEX by 10-12%
 - Create a clear roadmap towards sustainable growth by reducing the carbon footprint by 10-15%
 - Qualify for industry specific energy conservation references.
- Because of the positive impact created by the implementation, customer is planning to expand it to different production facilities across GCC.

- Site survey done and identified the major production and ancillary equipment which are to be targeted for energy monitoring.
- Designed, supplied, installed, tested and commissioned,
 - Smart metering infrastructure for monitoring the energy consumption of the targeted equipment.
 - Intelligent energy management Software for processing energy meter data, performing energy analytics.
 - Customised module to integrate the ERP software of client for calculating the Specific Energy Consumption for different production process stage.
- Automated customized energy consumption reports and production reports shared by E-mail on daily basis.
- Notified the anomalies & threshold breaches by E-mail, WhatsApp and In-App on real time.
- Incorporated energy tariffs in the reports, which enabled the customer to compare and justify the utility bills paid