



# Case Study for a Food Grade Plastic Manufacturer

- 105000 Sqft. Shop floor/ production area
- 100,000 units electricity consumption per month estimated, only in the targeted equipment
- Unknown production energy rationalization
- No handle on power factor, harmonics and other major electrical parameters.
- Unknown power factor, harmonics and power quality and energy disaggregation
- Unknown energy break up based on product line and shift
- Excessive scrapping and remelting of virgin plastic.

## Situation



## Task



- Mandate to reduce energy and maintenance cost
- Provide better visibility on energy consumption for each product line and shift
- Ensure efficient raw material usage
- Improve maintainability of production equipment
- To measure and alert users about any threshold breaches happening in the electrical parameters to ensure safety of equipment
- To quantify usage and wastage of power

## Result



- Eliminated need for unfruitful and costly energy audits
- Qualified for industry specific energy conservation references
- Stake holders are made happy
- Engaged continuously for cost cutting in AMC, Energy, Manpower and raw mtl
- Quantified specific consumption for each product line
- Provided better clarity of installed plant capacity and current utilization which helped the share holders to have a clear road map for future expansion of facility and production line.
- Helped to reduce overall production cost by 6-8% per year

## Action



- Site survey done to identify the energy guzzlers
- Installed smart energy meters and monitoring hardware and networked to SEnergy cloud.
- Provided energy metrics of each product line and shift
- Generated automated custom reports based on the product line and shift
- Defined and quantified efficiency and conservation metrics
- Analysed the consumption, usage and wastage
- Provided
  - ✓ Ticket resolution system integration for alerts for tracking
  - ✓ Curative measures and recommendations for equipment health issues
  - ✓ Well defined road map to energy efficiency and saving
  - ✓ Customized time slots for working and non-working hours to have a better visibility of peak and non-peak consumption