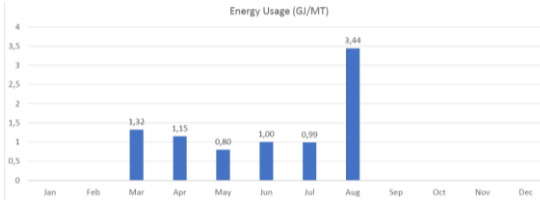


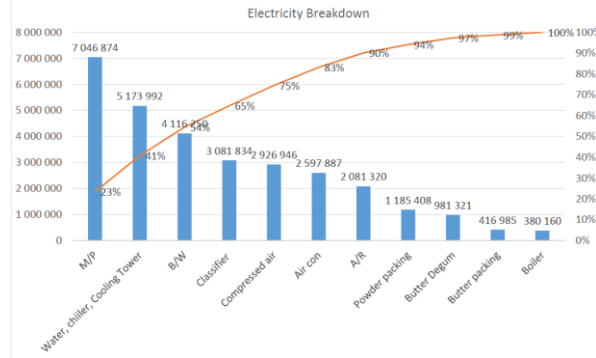
# Reduction of Energy Consumption in the Process Industry

## PICTURES BEFORE

Seasonal production with variability in energy consumption (average = 1.05 GJ/tonne)



Pareto of electricity consumption by equipment



Electricity consumption monitoring display

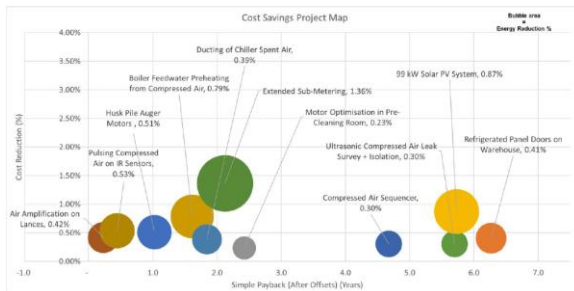


## PICTURES AFTER

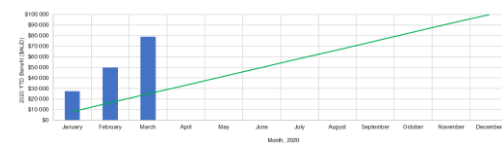
Ishikawa analysis of high energy consumption



Prioritisation of Impact vs Cost Improvements



Monthly Benefits Tracking Follow-up



## Problem

- High energy costs: 12% of industrial costs
- Electricity costs increasing year on year

## Root Causes

- Lack of knowledge of the weight of different equipment in the overall consumption
- Unused equipment not switched off
- Low factory power factor (0.85)

## Solutions

- Ishikawa analysis of electricity over-consumption
- Process for disposal of unused equipment
- Standardisation of start-up after shutdown, with optimum sequence to minimise power peaks
- Installation of measuring devices on critical equipment. Consumption data analysis by equipment with launching of countermeasures

## Benefits

£ 211k /year

