Black Belt Energy Saving Project Storyboard

Define Phase

Objective:

- Reduce energy costs at SIL to deliver savings in excess of €150,000 per annum.
- Improve company profile by reducing carbon emissions.

Goal:

- Decrease energy costs at SIL by 20%
- Maintain current levels of production, quality and health and safety
- Complete project by Aug2009

Factors Targeted:

•Heating	Air handling
•Lighting	Supply
•Cooling	Compressed air
•Supply	

BUSINESS CASE

Energy costs 2008

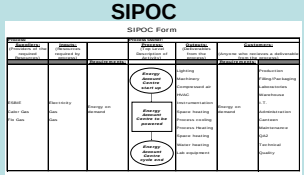
Electricity € 491,710

Gas € 285,157

Total € 776,867

20% cost saving €155373

SIPOC



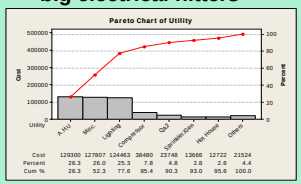
PROJECT COMPLETION

Measure Phase

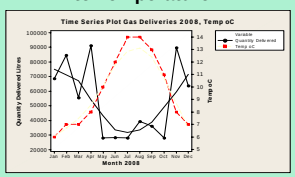
Data Collection

Gas Process Map

Pareto chart of big electrical hitters

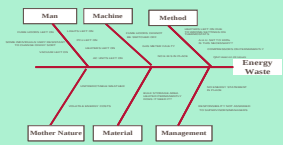


Gas usage inversely proportional to Temperature



Team Brainstorming

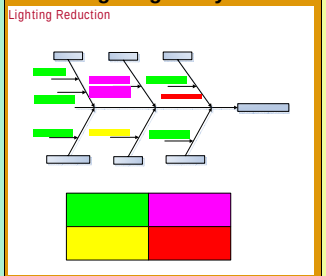
Brainstorming (Fishbone Diagram)



Analyse Phase

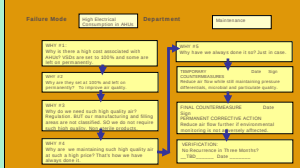
Lighting Study

Lighting Reduction



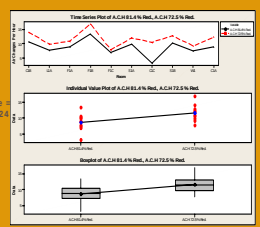
5 – Why Analysis

5 Why Analysis-Air Handling Units



Air Handling Unit Pilot Study

Air Changes Per Hour



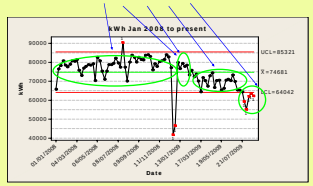
Target: At least 70% reduction=€79,326

Improve Phase

Solution Implementation

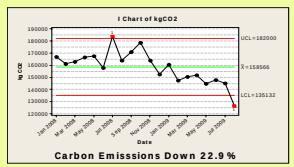
Electricity Control Chart

D M A I C



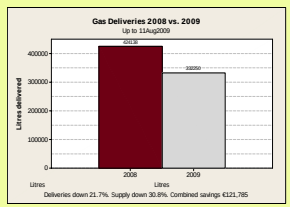
- •AHU power reduced
- •Lighting modification
- •Time clocks
- •Boilers off at weekends
- •Compressed air leaks
- •Procurement strategy

Carbon Emission Reduction



Carbon Emisssions Down 22.9%

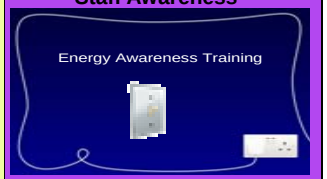
Gas Delivery Reduction



Deliveries down 21.7%. Supply down 30.8%. Combined savings €121,785

Control Phase

Staff Awareness



Control Measures

- •Awareness training
- •Equipment labelling
- •Energy management team
- •Energy Audits
- •SPC Charts

Black Belt Team

Baseline Costs	Target %	Target Saving	Actual %	Actual Saving
€ 776,867	20%	€155373	52%	€403,173