



STEEL HUB
TRADING & CONSULTING

Case Study 1/2018

An example of an Energy Efficiency Program which brought savings of more than 36 million Euros



Steel Works Description

This Integrated Steel Plant is the biggest single site of Steel production in the EU. Turnover reached 5 Billion Euros in 2007 with EBITDA of 700 million Euros. Production ranges from High Quality Steel Pipes API X 70 X 80, used for Submarine high pressure Gas transport, to the Automotive users such as FIAT, BMW and SEAT.

At a Glance:

After a long period of investments in Capex and focusing on raising production, work on projects such as an Energy Efficiency Program had been minimal. The Steel Plant consumption bill was very high and each plant's energy improvement plan was being operated autonomously.

The solution:

Rather than asking each busy Plant Manager to present a new program to reduce energy efficiency, a different approach was initiated. A transversal team was nominated to tackle the problem.

The result:

Plant Managers were very co-operative and pleased to receive technical assistance on such a complex matter. Results began to appear and savings were massive

Raw Numbers

Steel Production capacity is **11,500,000 Tonnes**

1.5 % of country's total electricity consumption

Cost of electricity bill reached **€400,000,000** a year

Almost **1%** of the total national natural gas consumption

Context

Initial Situation:

The company was undergoing a period of activity rationalisation after the steel consumption boom of 2004-2008. The priority was reducing cost; the energy bill was among the highest costs second only to raw material expenses. In the past there were many attempts to reduce the energy bill but all the efforts achieved only minimal savings. So a new approach needed to be adopted.

The reasons why this situation arose were:

- Lack of transparency on Energy cost
- Low Focus on energy management in previous years
- Energy cost perceived as a fixed cost by Plant Managers



Our Approach:

After many careful discussions an integrated team was formed made up of personnel from both Steel Hub and the Client. The team was to be on the project full time. Components of the task force were:

- Former Steel Plant Director
- Steel Hub technical support
- Steel Hub technical support
- Head of the Accounting Control Unit
- Head of the Electric Steel Plant Workshop

The company management confirmed that the team had the full confidence of the Board and the authority to question the Plant Managers about every waste of energy. The team had to report monthly directly to the Management Board.

Brief review of different phases of the project:

1 Detailed mapping of consumption: 2-4 weeks

Starting data collection and rationalisation, assessing current initiatives, and undergoing technical discussions with managers. Sometimes data were not precise as electricity consumption figures were given to the wrong plant.

2 Evaluation of the economic return on planning interventions: 2 weeks

Potential savings using the Pareto System. Prioritizing actions and discussing the level of potential savings in terms of Euros. Improvements were divided in two categories: operating losses, and design losses, that required additional investments.

3 Approval: 1 week

Steering Committee with Senior Management to review the report with Area Managers to propose additional improvements, and getting approval to start.

4 Implementation 6-12 weeks

Phases to make improvements sustainable.

Final Results

The program was considered to be one of the most effective projects delivered in the last few years. The success of the project was mainly due to an integrated approach bringing together technical expertise and strict management control procedures. Key reasons for the success were monthly reporting and continuous communication within the plant management. Savings were massive and were considered to be one of the main reasons that the company overcame the financial crisis of 2008.

STEEL HUB TRADING & CONSULTING		Before Steel Hub Intervention	After Steel Hub Intervention	MW reduction actual	MW reduction %
Electrical Consumption MW					
Pig Iron Area	MW	181	167	14	-7,73%
Steel Shop	MW	57	45	12	-21,05%
Rolling Mill	MW	122	121	1	-0,82%
Pipes Mill	MW	7	9	-2	28,57%
Services	MW	174	157	17	-9,77%
Total Steel Plant phase 1	MW	541	499	42	-7,76%
Euros					
Cost per year	€	€ 280.000.000	€ 244.000.000	€ 36.000.000	-12,86%

Electrical Consumption MW



STEEL TRADING HUB LTD

REGISTERED IN UK

COMPANY REGISTRATION NUMBER 10074543

1 FORE STREET AVENUE

LONDON EC2Y 9DT

T: +44 (0) 2075664069

INFO@STEELHUB.EU • WWW.STEELHUB.EU