

ENERGY CONSERVATION STRATEGIES  
IN AN INDUSTRY

Project Report Submitted By

GEORGE ANGELIDES

In part satisfaction of the conditions for the award of

Diploma of Technician Engineer in  
Mechanical Engineering of the Higher  
Technical Institute, Cyprus.

Project Supervisor : Mr. Polyvios Eleftheriou  
Lecturer in Mechanical Eng. Dept.  
at Higher Technical Institute.

External Assesor : Mr. Haris Papadakis

Type of Project : Individual ✓  
Group

June 1989



## A B S T R A C T

As it could be noticed from the title this project deals in finding Energy conservation strategies for the Coca-Cola Co.

1. In Chapter 1 the procedure followed by each section, in order to produce the products, is explained.
2. In Chapter 2 estimation of energy consumption of each section is made as well as the construction of a shankey diagram of the energy consumption of the sections during the year 1988.
3. In Chapter 3 an economical analysis is made in order to see the money spend for the energy required, by all the sections.
4. In Chapter 4 an identification of the areas for possible energy conservation is made . Then energy conservation methods were suggested as well as the economic feacibility of these energy conservation strategies.

## CONTENTS

	PAGE
DEDICATION .....	I
ACKNOWLEDGEMENTS .....	II
ABSTRACT .....	III
CONTENTS .....	IV
INTRODUCTION .....	1
CHAPTER 1 -Brief Explanation of the factory ..	4
1.1 Section 1 .....	6
1.2 Section 2 .....	8
1.3 Section 3 .....	9
1.4 Section 4 .....	11
1.5 Section 5 .....	12
CHAPTER 2 Estimation of energy consumption	
at the factory.....	13
2.1 Section 1 .....	15
2.2 Section 2 .....	19
2.3 Section 3 .....	22
2.4 Section 4 .....	25
2.5 Section 5 .....	28
Pie chart 1.....	31
Shankey diagram 1 .....	32
CHAPTER 3 Economical analysis of the energy	
consumed by the factory .....	33
Pie shart 2 .....	42
Shankey diagram 2 .....	43
CHAPTER 4 Energy conservation methods	
being Suggested .....	44
4.1 Introduction .....	45
Areas studied.....	45

Conclusions .....	49
APPENDIX 1 Conversion of energy to one unit ...	50
APPENDIX 2 Conversion of energy to noney .....	57
APPENDIX 3 Returnes of the condensated steam to the boiler .....	61
APPENDIX 4 Use of high efficiency fluorescent .....	63
APPENDIX 5 Solar pannels instalation .....	66
REFERENCES .....	69