

Executive Summary

This report represents the results of the comprehensive energy audit study carried out at Alpha Beta Food Industries, Azraq from Feb. 9, 2004 by the National Energy Research Center (NERC).

The study focused on the following major energy consuming areas in the plant to identify energy conservation opportunities:

- Electrical system
- Cooling Towers
- Boilers and Steam System
- Compressed Air System
- Lighting System
- Water Treatment
- Energy Management

The DEA team would like to express their gratitude and appreciation for all of Alpha Beta Co. management and employees who facilitated and assisted in conducting the DEA.

The DEA was conducted by:

Ammar Taher
Walid Shahin
Haitham Adas
Nidal Abdalla
Muhieddin Twalbeh
Mohammed Qudah

This section presents a summary of energy conservation projects proposed for implementation and contained in the main report. The summary is shown in the next two tables.

It is estimated that JD **76600** a year can be saved through implementing the identified and reported projects.

The investment required totals about JD **38230** which needs to be paid to implement all proposed projects. The total pay back period is less than **2 years** . That means that all the recommended projects can be financed from the annual budget of energy cost.

Summary of Potential Savings

Area	Annual Energy Savings		Investment Required JD	CO ₂ Reduction Ton/yr.
	Electricity kWh/yr.	Cost Savings JD/yr.		
Electrical system	-----	-----	-----	-----
Lighting System	67802	2848	7935	47.3
Cooling Tower	149190	6266	7400	104.08
Compressed Air	118333	4970	700	82.6
Boilers and Steam System	-----	47526	10195	719
Water Treatment	-----	14990	12000	-----
Total		76600	38230	953.7
KWh	335325			
Ton of Diesel	299			
Percentage of energy saving (total saving/total energy bill)				

Chapter No.	Project (Title and short description)	Possible Savings JD	Expected Investment JD	Pay Back Years
3	Electrical Systems:			
4	Lighting:	2848	7935	2.8
5	Cooling Tower	6266	7400	1.57
6	Compressed Air	4970	700	0.28
7	Steam System	47526	10195	0.21
8	Water Treatment	14990	12000	0.8

