



ALTA PROCESS SOLUTIONS

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INDUSTRIAL PROJECTS

Project No.: 11

Industry: Sugar Industry

Project Subject:

Retrofitting of Steam, HEN & Crystallization Systems in Sugar Production Plant

Challenge:

This is a project about retrofitting of an existing sugar plant for energy saving. In this study, the production process, including steam system, heat exchangers system and crystallization unit have been revised using Process Integration and Pinch concepts, and some modifications were proposed. The result of this study shows that some \$3,143,893 in a 300-day work cycle has been realized.

Proposed Solution:

1. Decreased energy consumption of production process and also decreased coolers and boilers load which leads to less cool water and power consumption by improving heat exchangers network of the plant.
2. Increased reliability and safety of system due to improved production, distribution, and consumption of steam.
3. Providing the plant with a reliable source of revenue by producing more than 25 MW electric power in this project.
4. Decreased energy intensity or in other words, the fuel consumption per unit of production decreased in the company and therefore energy efficiency in the plant raised.
5. GHG's emissions reduced due to less fossil fuel consumption.

Results:

