



Scientex Packaging Film

Pulau Indah, Port Klang, Selangor

Project Overview

In 2001, Scientex Packaging Film Sdn. Bhd., a wholly-owned subsidiary of Scientex Bhd., set up a stretch-film manufacturing facility in Pulau Indah, Port Klang. Over the years, this facility has undergone rapid expansion of its operations such that annual production capacity reached 120,000 metric tons in 2012, a fivefold increase from the startup capacity. As part of its goal to be among the world’s top five producers of stretch film, Scientex Bhd. outlined an expansion plan that will introduce two new production lines at the facility to boost total production capacity up by 30% by 2014.



Project Challenge & Our Involvement

In raising the plant’s production capacity, the owner wanted to build in process-cooling capacity dedicated specifically to the needs of the new fabrication lines and concurrently, improve the reliability of an existing process-cooling system compromised by aging water chillers through scheduled replacements. We devised an alternative approach to solving these problems that would not only provide reliable chilled-water service for all manufacturing lines but also improve overall process-cooling efficiency and control, and this led to our firm being awarded a design-build contract for the upgrading of the facility’s process-cooling systems.

This information was subsequently used to qualify the capital project for the Investment Tax Allowance (ITA) for Energy Conservation tax incentive¹.

Project Offerings

The core value that we have delivered for the project derives from the following features of the centralized process-cooling plant:

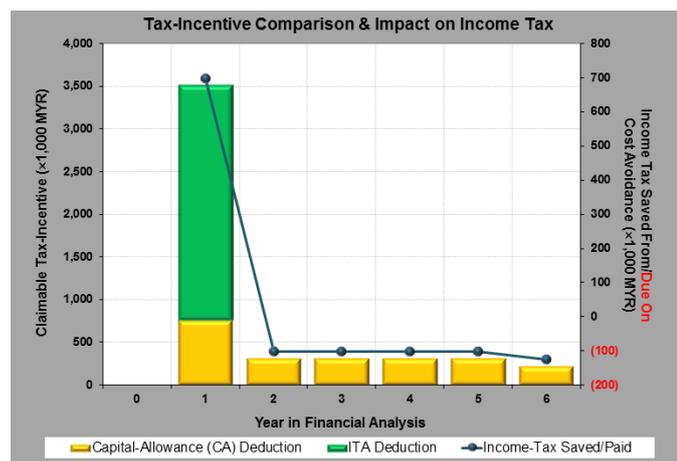
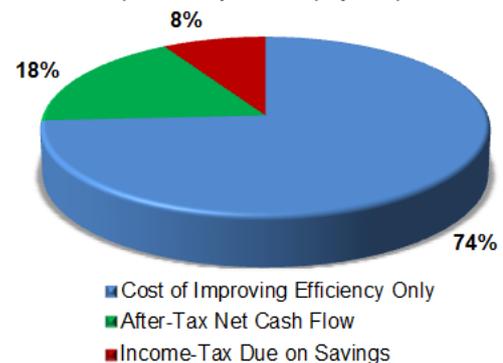
- Fully-interconnected existing and new systems
- Low-flow, low-temperature (LFLT)
- Fully-integrated direct digital controls (DDC)
- Best design practices

Project Outcomes

The improvement in the efficiency of process cooling alone is projected to save more than MYR 720,000 per year. The technical and economic justification for the project helped Scientex Packaging Film Sdn. Bhd. to successfully capture the ITA tax incentive, which had a cash value² worth 22% of the initial capital investment.

Distribution of Investment Savings

Shown for a period of 5-years after project implementation



The total savings² from the efficiency endeavor over a 5-year period will pay off both the cost of improving process-cooling efficiency for existing production lines and the cost of providing cooling for the new lines.

Furthermore, we documented the facility’s baseline operating conditions to establish the optimum unified-cooling configuration and potential energy savings.

Project Distinctions

The transformation of the Pulau Indah manufacturing site from a mixture of independent cooling systems to an optimized network served by an efficient central plant has offered a structural opportunity for sustained improvements in capital and operational efficiencies. These will supply further momentum to Scientex Bhd.’s bid to become a leader in industrial plastic packaging.

¹ Offered by MIDA under the Promotion of Investments Acts 1986.

² Based on a corporate hurdle rate of 15%.