

Industrial Energy Efficiency Project

For the achievement of energy savings and efficiency gains in their facilities, PT. Argo Pantes has joined hands with the United Nations Industrial Development Organization (UNIDO), the Ministry of Energy and Mineral Resources (MEMR), Ministry of Industry (MOI) and National Standardization Agency of Indonesia. The Global Environment Facility (GEF) funded project, "Promoting Industrial Energy Efficiency through System Optimization and Energy Management Standards in Indonesia", has supported PT. Argo Pantes to introduce a structured approach to energy management in their operations through an Energy Management System in alignment with ISO 50001.

INDONESIA:

A Case Study of PT. ARGO PANTES

Structure and the support of the UNIDO program bring success in all areas of operation

Before joining the UNIDO program, Argo Pantes had already implemented ISO 9001 and 14001, and a number of Energy Performance Indicators (EnPI) had been established at the plant level. While this was a step in the right direction, a structured system was required to identify areas of significant energy usage. The identification of significant energy users (SEU) allows a company to continuously monitor the performance of each SEU and further develop an energy optimization program. To monitor the performance of each SEU, Argo Pantes, with the support of the UNIDO national experts, established an EnPI as per the identified SEU.

To establish the EnPI, Argo Pantes set up objectives and targets for both the mid- and long-term, promoted energy awareness through trainings for both top- and mid-level management, and installed monitoring devices on machinery. Prior to the implementation of the Energy Management System (EnMS), Argo Pantes had never taken such an approach, moving from an isolated project approach to an energy management approach.



Established in 1977, PT Argo Pantes has grown to be a well-known Indonesian integrated textile company consisting of spinning, weaving and wet processing. In 2012, PT Argo Pantes employed over 3,000 staff with a projected 75% of products destined for the international market.

source: Schematic World Map, UNIDO



Improving Energy Efficiency through Energy Management System

An EnMS is a systematic approach to improve energy efficiency. Before implementing an EnMS, Argo Pantes had already undertaken several activities to improve their energy efficiency. However, these were conducted in an isolated manner, meaning that little information was available on their actual impact.

In light of increasing energy costs, more frequent black-outs and an increasing share of energy in production costs, Argo Pantes realized that a more transparent approach was required to energy management. To achieve this, they involved all key employees in the day-to-day management of energy through operational controls and, as a pilot company, partnered with UNIDO to implement an EnMS compliant with ISO 50001:2011. In line with this, potential energy performance improvements of 12.2%, from the baseline year of 2012, were identified.

In order to ensure management commitment throughout the process, Argo Pantes has incorporated the EnMS program into their existing Business Process Improvement Scheme.

Through close engagement with other departments, changes were made to the operational set-points. The above-listed measures and some medium-sized investment initiatives led to an average pay-back period of two months with **an improvement of 12.2% in energy performance**, as compared to the energy baseline of the previous year.

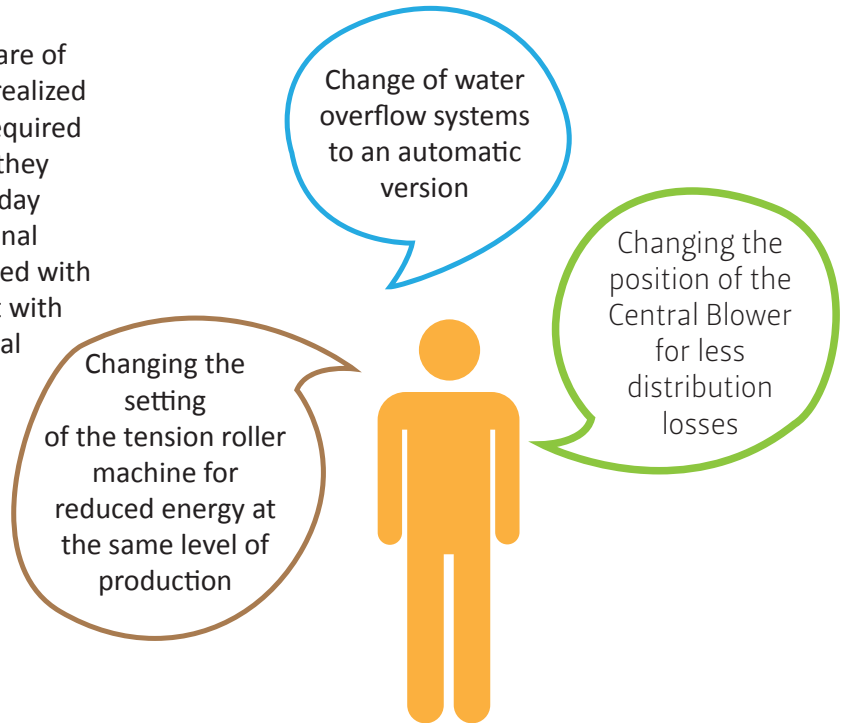


TOTAL ENERGY SAVINGS

of 12.2% per year achieved were equivalent to approximately 3.056.024 kWh, or USD 275,042.

Opportunities

Identifying and taking advantage of opportunities is key to improving the performance of each SEU; under the guidance of the UNIDO-trained experts, Argo Pantes identified 25 opportunities through the EnMS approach. This included challenging the current operational control set points employed, along with a number of low-cost and non-disruptive actions such as:



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