PT. KMK Global Sports (K1) has joined hands with the United Nations Industrial Development Organization (UNIDO), the Ministry of Energy and Mineral Resources, Ministry of Industry and National Standardization Agency of Indonesia to implement a structured approach to energy management in their operations, under the Global Environment Facility (GEF)-funded project, “Promoting Industrial Energy Efficiency through System Optimization and Energy Management Standards in Indonesia.” Through this cooperation, PT. KMK Global Sports (K1) has already achieved significant savings and efficiency gains through the implementation of an Energy Management System in alignment with ISO 50001.

**INDONESIA:**

**A Case Study of PT. KMK Global Sports**

**Importance of establishing a baseline**

KMK implemented an initial energy program in the period 2007-2012 that focused on achieving energy savings with a project approach. In this period, the technical aspects of implementation were a priority, focusing, for example, on improving electrical power quality, replacing older equipment with energy saving equipment, and purchasing new machines with energy saving devices.

After consultations with the UNIDO program, national and international experts, KMK began to monitor their results through the establishment of a baseline as a starting point to measure the implementation of an Energy Management System (EnMS) and the energy measures.

**UNIDO program and a Structured Approach brings success in all areas of operation**

With the support of the UNIDO program, KMK implemented a structured approach to energy management; developing an energy policy and an EnMS procedure, setting up the energy team, identifying the significant energy usage area, setting up objectives and targets for the mid- and long-term, sharing energy awareness through trainings organized for top- and mid-level management, and providing and installing monitoring devices for machinery. In addition, significant energy users (SEU) were identified that will help KMK to design and implement an energy optimization program in the future. This approach has shifted KMK to become an energy management company rather than an ad-hoc project based company.

PT. KMK Global Sports (K1) has been a producer of leading global brands of footwear since 2001, producing around 1 million pairs of shoes per month for international market. It employs more than 12,000 workers and occupies nearly 13.6 hectares. KMK is certified for ISO 14001 (Environmental Management System), OHSAS 18001 (Occupational Health and Safety Management System) and is working on achieving ISO 50001 (Energy Management System).

Location: Cikupa, Banten Province
Products: Footwear

KMK is known as “The House of Autoclave” where most of the footwear produced is vulcanized-process model. Where shoes are processed at certain temperature and pressure to strengthen the bonding.

source: Schematic World Map, UNIDO
Action Plans
Before joining the UNIDO program as a pilot company, KMK had implemented an energy efficiency program in 2007 that was driven by isolated actions to achieve reductions and led by an Energy Team with limited experience in energy efficiency.

Focus on Low Cost Opportunities
As part of the system implementation, a focused data driven approach to the improvement of energy performance was placed on their SEU. This included challenging the operational control set-points employed and implementing some other easy to implement actions:

- Reducing the running hours of energy consuming equipment, such as HVAC, motors, etc.
- Reducing the pressure used
- Changing settings of the cascade system of the Chiller

Through close engagement with other departments, changes were made to operational set-points and these no cost measures and some medium investment initiatives led to significant improvements through the program.
The initiatives identified and implemented resulted in a **11.3% improvement in various sections** which is monitored by energy performance as compared to the energy baseline of the previous year. This has served to achieve the management objective, namely: **Reduce 5% from Energy standard Line ANNUALLY.**

Value of an EnMS
By joining the program, top management is now more actively engaged in the energy planning of their company. KMK believes that the program, by establishing a system rather than simply implementing isolated energy saving measures, offered them significant benefits in a sustainable way.

“We certainly need energy to run our life. But we need to make sure it comes from the source that will not ruin our life. Use it wisely for our future is not just for us, but for our children”

As a result of the UNIDO supported intervention, KMK saved $250,000 in 2013 and $80,000 was saved through no cost measures such as changing the running and pressure settings. This means that KMK saved 3.6% without having to make any investment.

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