

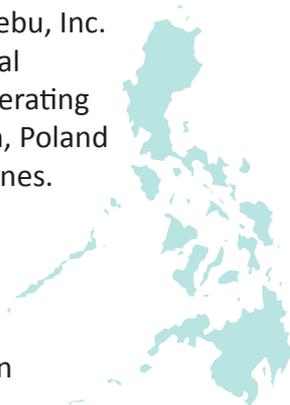
Industrial Energy Efficiency Project

PHILIPPINES

Funai Electric Cebu Ltd. has joined hands with the United Nations Industrial Development Organization (UNIDO), the Department of Energy and the Department of Trade and Industry to implement a structured approach to energy management in their operations, under the Global Environment Facility (GEF) funded project, "Industrial Energy Efficiency in the Philippines." Through this cooperation, the Funai Electric factory has already achieved significant savings and efficiency gains through the implementation of an Energy Management System in alignment with ISO 50001.

A Case Study of Funai Electric Cebu, Inc.

Funai Electric Cebu, Inc. is a multinational organization operating in the US, Japan, Poland and the Philippines.



The organization produces inkjet printer supplies and consumer electronics.

The energy consumption of the Cebu facility is relatively significant, with annual electricity consumption in 2012 in the order of 24 GWh.

The site has a total floor space of approx. 50,000 square meters for support services and manufacturing, including 5,553.49 square meters of cleanrooms and employs between 700 and 800 professionals and skilled workers.

source: Schematic World Map, UNIDO



Traditional Focus

Before joining the UNIDO Industrial Energy Efficiency (IEE) Project, the Funai site already had a rudimentary energy management system in place which focused on the Facilities Engineering Department. Site management were already cognizant of the need for energy efficiency improvements but there was reluctance to pursue actual improvements in the manufacturing areas due to a resistance to change. Thus, the manufacturing segment of energy consumption became more and more significant as a result of the execution of improvement projects in the utilities area.

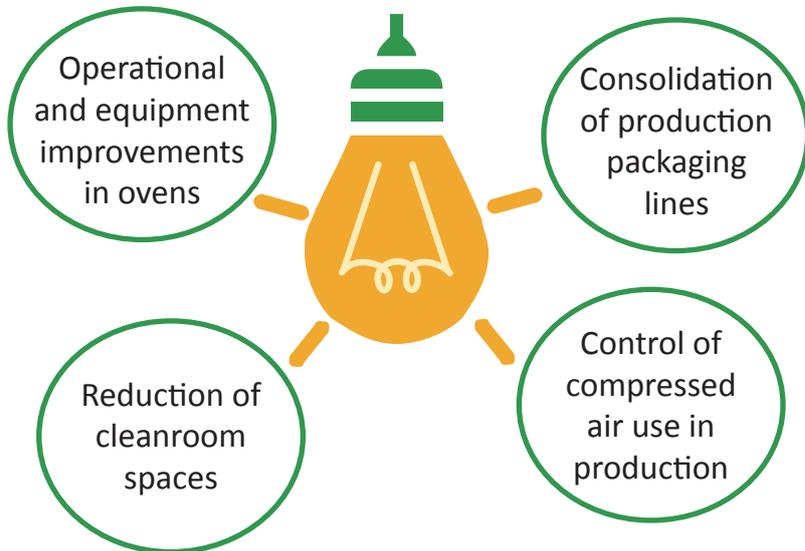
Unique Selling Point of ISO:50001

Through the development of energy planning aligned with the requirements of ISO:50001 it became evident to management that it was no longer possible to avoid implementing energy improvement projects in the production area as it had become a significant energy user. Under the IEE project, the Energy management team was formally established with the manufacturing areas well-represented and all projects proposed and implemented by the team were identified to impact the largest energy users in the facility.

Clear Objectives Targets and Action Plans

In line with the established Action Plan, the site committed to a 12% energy reduction target for 2013; this was on top of the substantial reductions from successes already achieved in previous years.

The projects identified with the support of the UNIDO experts and approved for implementation by Funai Electric management include:

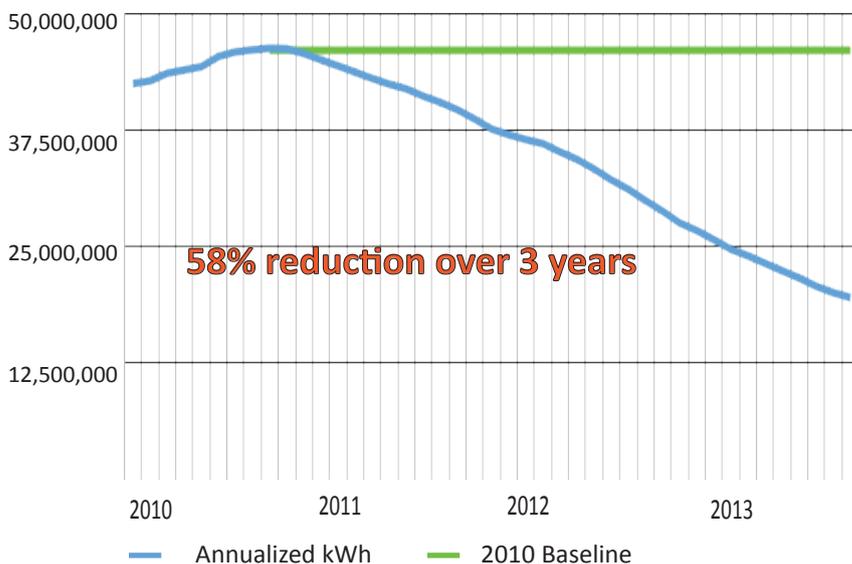


The energy management team has also decided to revisit lighting strategies in the smaller segment of the energy pie, in order to enhance employee awareness and engagement in the overall energy program.

Initially, the standard focus on production as “manufacturing makes the money” was a significant barrier to the energy efficiency improvements.

A tipping point was reached through support from corporate headquarters as a result of the positive results delivering substantial savings.

Annualized Energy Consumption

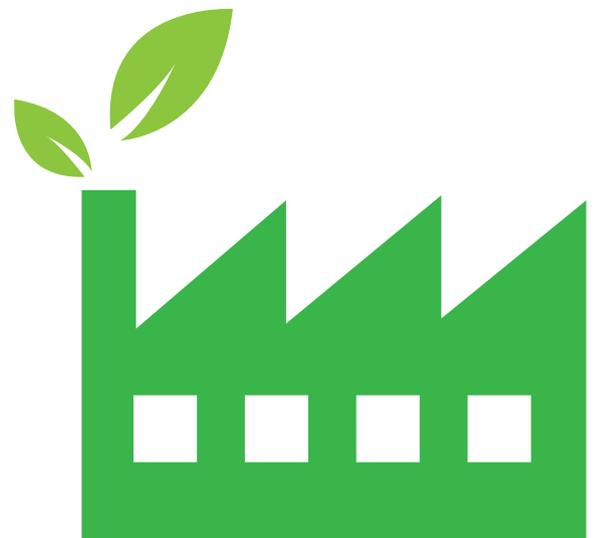


This paved the way for local management to actively support the establishment and implementation of an EnMS.

The use of mathematical tools has greatly enhanced the credibility of the energy management programmes and has provided professionalism to recommendations that previously had been reserved for quality improvements. This was particularly useful when demonstrating to management the significant improvements delivered by previously implemented projects, thus enhancing the credibility of the new project proposals involving manpower and financial expenditures.

Management support is critical to the success of the EnMS and winning this support through the implementation of high-profile projects that generate large savings is just one of the means. In the case at hand, this was done to break through the barrier of an influential manufacturing group that held a large piece of the energy pie.

Having overcome these initial barriers, Funai Electric has seen significant and sustained improvements in the organization in the past years.



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