

Pilot Project "Introduction to Energy Efficiency and Energy Management Systems in SMEs in Mexico"

Example of energy efficiency improvement Safran Landing Systems Mexico: Adaptation of operational control to improve utilisation

Background information

The implementation of the pilot project began with the introductory workshop to ISO 50001 in October 2015. The companies then conducted energy audits to identify and prioritize various opportunities for improvement, under the guidance of Mexican consultants with expertise in energy efficiency.

The company **Safran Landing Systems Mexico**, formerly known as Messier-Dowty Mexico, SA de CV, located in the city of Queretaro and specializing in the manufacture of structural components for landing gear, identified the heat treatment furnace used in the tempering process for the semi-finished product as a Significant Energy Use (SEU).

Due to operating conditions, the furnace in question functioned on average at 67.5% of its capacity.

Description of the improvement

Once the energy review had been carried out and the process area had been included by the energy team, an operational control strategy was identified and established, which determined that the furnaces should operate with a minimum load of 3 parts, thereby raising the average capacity utilization to 75%.

This case is an example of how through operational modifications in production processes, which do not require capital investment, significant energy savings can be achieved.

Savings achieved, results and additional benefits

Key indicators	
Total energy saving for the plant	3.33%
Annual economic saving	MXN \$ 470 000
Annual energy saving	344 846 kWh
Investment needed	0
Payback period	0
Greenhouse gas reduction	132 765.71 Kg of CO ₂ eq.