

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

Example of energy efficiency improvement Industrias Haber's: implementation of efficient lighting systems

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. **Industrias Haber's, S.A de C.V.** is a textile company located in the industrial park of Santiago Tianguistenco. One hundred percent Mexican and with over 300 stores throughout the country and in Guatemala, it plays an important role in men's suit production at the national level and supplies prestigious companies such as IMSS, Palacio de Hierro, Banamex and Liverpool.

Description of the improvement

Industrias Haber's has a total of 3,300 light bulbs in the main plant, whose consumption accounts for approximately 27% of the company's electricity bill. The devices are of the fluorescent type, 59 W, 32 W or 30 W, with the vast majority being 59 W bulbs, which not only increases the plant's demand but also results in significant energy consumption, in addition to the damage generated by the electronic ballasts, which cause harmonics problems in the electric grid. As an improvement measure, the short-term action plan proposed by Industrias Haber's involves the implementation of an efficient LED lighting system with the following objectives:

- Improve lighting levels in work areas,
- Generate economic savings through the implementation of new technologies,
- Reduce the problems generated by the electronic ballasts in the electric grid and
- Mitigate CO₂ emissions into the atmosphere.

***Not only are financial savings achieved due to the reduction in power consumption,
but lower maintenance costs are also attained due to the longer useful life.***

Savings achieved, results and additional benefits

Key indicators	
Total energy saving for the plant	20 %
Annual economic saving	MXN \$ 566 304
Annual energy saving	255 555 kWh
Investment needed	MXN \$ 812 348
Payback period	18 months
Greenhouse gas reduction	166 110 kg CO ₂



The Mexican National Commission for the Efficient Use of Energy (CONUEE) and the German Metrology Institute (PTB) make the aforementioned project available to small and medium enterprises (SMEs) in order for them to implement an energy management system (EnMS) according to ISO 50001, by strengthening the skills of technical staff within each company.

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