

CASE STUDY: IMPLEMENTATION OF THE ENERGY MANAGEMENT SYSTEM AT GÉNOVAS SANTA FERREÑAS

Industrial Energy Efficiency Programme in Colombia



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GÉNOVAS SANTA FERREÑAS company enrolled in the training course offered by EEI Colombia in the Cundinamarca and Boyacá regions during 2018, to implement an Energy Management System (EnMS) according to NTC ISO-50001 guidelines.



Samples of meat derivatives produced by Génovas Santaferreñas.

Source: GÉNOVAS SANTA FERREÑAS

“Implementing EnMS has contributed to optimize our productive processes; to efficiently use energy; to generate a friendly culture towards the environment and to improve our competitiveness in the market.”

Lizeth Álvarez, Chief of QA, Génovas Santaferreñas

Overview:

GÉNOVAS SANTA FERREÑAS is a very small company dedicated to producing premium meat derivatives, located in the Madrid municipality in Cundinamarca Department.

The implementation of the Energy Management System (EnMS), was an initiative of the Quality Assurance area of the company as they wanted to reinforce their policy of overall continuous improvement, simultaneously making a contribution to Sustainable Development Goals.

The main energy sources consumed in the productive process are electric power and natural gas, used on refrigeration, cooking and baking processes.

Achievements:

“Through the energy review, conducted under ISO 50001 guidelines, we identified Significant Uses of Energy, as per consumption and costs. At the same time, we identified potentials to reduce energy consumption based on technological changes (Lighting and refrigeration); best practices of energy usage; operational control and the optimization of processes through the adjustment of baking times.

Many of these initiatives, already implemented, target an 8% reduction of electric power consumption and a 10% reduction of natural gas, in regards to the established base line. By implementing EnMS we have gained a better understanding of basic working principles of productive processes; the productivity and the technicality of processes at the plant have increased, all due to a change in the way we envisioned production planning, oriented to improve energy performance and productivity.”



Baking and cooking processes of meat derivatives products
Source: UNIDO / UPME

Relevant Information: _____

Program implemented: EnMS

Base year: 2017

Energy sources: Electric power and natural gas

Scope and limits of EnMS: Refrigeration, lighting and baking

Improvement Actions:

Best practices: O&M, operational control, adjustment of processing times

Technological change: Lighting and refrigeration

Goal: 8% reduction in consumption of electric power and 10% reduction of natural gas

Identified savings: 135,8 kWh/month of electric power and 35 m³/month of natural gas

GHG reduction: 0,13 tCO₂ eq / month

Success factors and lessons learned: _____

A key element in the implementation of EnMS is to make energy efficiency an actual habit, both in operational practices and in the collection and follow-up of information which makes evident the progress towards established goals. The synergies within the organization and the capacity of the staff to adapt are fundamental to reach the expected results.

In this company, led and managed by a team of women, each employee contributes to the energy efficiency strategy, from the set of activities that she performs within the productive process. All staff is being permanently made aware about the efficient use of energy. That has been key to attain our goals.

The discipline displayed by upper management and the leadership of the team that implemented EnMS, have motivated a change towards an energy/productivity approach."

*Patricia Lozano, General Manager, GÉNOVAS
Lizeth Álvarez, Chief of QA, GÉNOVAS*



*EnMS implementation team
Source: GÉNOVAS SANTA FERREÑAS*

Future actions: _____

In the near term, Génovas Santaferreñas plans to replace their cooking equipment, which is the largest consumer of thermal energy in the process, and the automation and technification of several processes. They are also planning to conduct daily monitoring of indicators, by product, in order to revise the base line upon changes recently implemented. In the medium term Génovas Santaferreñas expects to implement a small-scale cogeneration project.

For further information: _____



Eficiencia Energética
Industrial en Colombia

This program, an initiative of UPME and UNIDO, has been created with the purpose of strengthening technical capacities in Energy Efficiency and to foster the implementation of EnMS, as support and contribution to the productivity and competitiveness of the national industry.

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