

IMPROVED ENERGY EFFICIENCY PASTEURIZATION PROCESS FOR A DAIRY PRODUCER

Aysa, a local dairy production company had historically used a batch pasteurization method to produce yoghurt, cream, and cheese. Pasteurization, a heat treatment process that destroys pathogenic organisms helping ensure food safety, is key to modern food production. Batch pasteurization is an old method generally inefficient and no longer favored by food industries.

To increase energy efficiency, Aysa is replacing this old process by a High Temperature/Short time (HTST) pasteurization method. This continuous process is more energy efficient, minimizes food product damage, and is very effective in destroying micro-organisms. The process uses an exchange unit that is designed to optimize consumed energy by pre-heating the incoming raw-product using the energy from already pasteurized product.

The project should result in energy savings of 79.8 MWh/year (81.8%) and a reduction of greenhouse gas emissions of 112.2 TCO2e/year. The project payback period is 3.6 years.



THE COMPANY

Industry- Agro-industry Location - Casablanca, Morocco



INVESTMENTS

MAD 400 000 eligble (of 6.8 million total) High Temperature / Short Time pasteurization unit (HTST).



PROJECT GOALS

Modernization Increase productivity Energy efficiency



RESULTS

Energy savings: 79.6 MWh/year % Energy savings: 81.8 %

Reduction in CO2 emissions: 112.2 TCO2e/year

IRR: 32.4 % SPBP: 3.6 years

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