

RECP Best Practice Catalogue

Replacing main chiller
Developed within the framework
of MED TEST II



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



The SwitchMed Programme is
funded by the European Union

Best practice - Replacing main chiller

SECTOR: **Food & Beverage**

SUBSECTOR: Manufacture of dairy products

PRODUCTS Yogurt, Sour Cream, Fresh Milk, White Cheese, Yellow Cheese, Labaneh, Soft Drinks, Nectar, Juice and Jelly.

CATEGORY Technology upgrade/Eco-innovation

APPLICABILITY Utilities

COMPANY NAME

COMPANY SIZE

Employs around 250 workers in different production plants, marketing ,distribution and in the dairy farms.

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Description of the problem (Base scenario):	The Main outdated chiller consumes almost one fourth of the overall company power consumption with a low COP. Total consumption of the chiller is 3,848 MWh/y.
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Description of the solution	Replacing the old chiller with a new one of a higher efficiency.
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Best practice - Replacing main chiller

Economic Benefits

- Reduce energy consumption of the chiller by 25%
- This represents savings of 962,000 kWh/y

TOTAL Saving: 125,370 EUR/y

Environmental Benefits

- Reduction of CO₂ emissions by: 720 ton/y.

N.A

Health and safety impact

Best practice - Replacing main chiller

Capital investments & financial indicators	227,500 EUR Capital investment Payback period 1,8 year
Suppliers	Different available brands
Other aspects	Enhancing the capacity and efficiency (Coefficient of performance (COP)) and therefore reducing power consumption.
Implementation	By changing the chiller the company reduced its energy consumption by 25% and reduced the total energy consumption by 6.25% .