

Companies connection to energy efficiency

The electric and thermal energy necessary for the production cycle is supplied by the Natural Gas Cogenerative Thermal Power Plant and this is also channeled the Biogas derived from the biological treatment of the plant waters.

Steam system

The nominal capacity of the steam system, which consists of a CHP plant equipped with 2 turbogas, 2 heat recovery system generator (HRSG) and 1 steam turbine, is about 90 t/h. The turbogas use natural gas as fuel, the HRSG's post combustion use as fuel natural gas and biogas. The steam produced is used for the production process of the paper at two different levels of pressure: MP (c.a. 21 bar) and BP (about 6,5 bar), The main consumers are the pulpers and the drying line. All of the condensate returns from the consumers.

Steam system problems identified

The steam system is quite efficient, although different efficiency measures have already been implemented in the past years and others will follow.

Proposed energy saving measures, investments, and expected results

Installation of insulation material on condensate recovery pipes (6.800 MWh saved, 120.000 euro of investment);

Introduction of steam management (9.000 MWh saved, 750.000 euro of investment);

Implement an effective steam trap maintenance program;

Energy efficiency improvement of the CHP plant.

Implemented proposed energy saving measures, investments and results achieved (in figures)

The second economiser has been implemented on the heat recovery system generator of the CHP plant.

Achieved and/or expected Non Energy Benefits (NEBs) as result of implemented and/or proposed measures and investments involved

All of the proposed measures will improve the overall efficiency of the steam system, lead to lower CO2 emissions and maintenance costs.

Involvement of internal stakeholders

The company is really involved into the implementation of the proposed measures to achieve cost-effective energy savings.



Italy

Paper manufacturing

Testliner paper

190 employees

Total (estimated) Investment

e.g. € 300.000

Total (Estimated) Savings

e.g. MWh 5.500

Non Energy Benefits

Lower CO2 emissions

Improved efficiency of the steam system

Lower maintenance cost

