STEAM AUDIT – Italy, nr.4

FACTSHEET

Companies connection to energy efficiency

For many years, the company have been using cogeneration unit of electricity and steam provided by two methane-fuelled turbines that can guarantee total autonomy of the production process, cost savings and a huge reduction of emissions into the air.

Moreover, there is a modern anaerobic biological plant, comprised of one vertical reactor with internal circulation, for purifying wastewater. It is the first of its kind in Italy.

Special care for the environment and recycling are the first steps for saving near land.

Steam system

The nominal capacity of the steam system, which consists of a CHP plant equipped with two turbogas and a heat recovery system generator is about 30 t/h. The nominal steam pressure is 10 bar. The turbogas use natural gas as fuel. 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, altough 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 (2.500 MWh saved, 30.000 euro of investment);

Introduction of steam management (3.000 MWh saved, 250.000 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

kraftliner and Testliner

59 employees

Total (estimated) Investment

€ 300.000

Total (Estimated) Savings

MWh 5.500

Non Energy Benefits

Lower CO2 emissions

Improved efficiency of the steam system

Lower maintenance costs