STEAM AUDIT – Czech Republic, Dairy production FACTSHEET



Companies connection to energy efficiency and sustainability

Company Moravia Lacto a.s. produces milk and dairy products. In their activities applies effective procedure to reducing of negative influence on the environment and human health. The company strives for safe and environmentally responsible management that will lead to long-term stability and prosperity. Company based on an analysis of current and future needs and expectations of customers.

Steam system

In the company Moravia Lacto a.s. is produced steam in the nature gas boiler room. In the boiler room are installed two steam boilers with nominal heat performance 2x5,6 MW. Steam has temperature 194 °C and pressure 12 bar. Steam is distributed with steam pipelines in the above ground network and in the energy channel. The amount of return condensate is 109%, which is due to evaporation on evaporators.

Steam system problems identified

Boilers are at the end of its technical lifetime - Installation of a new efficiency steam boiler.

Next issues were identified in area waste heat recovery from condensate and waste heat recovery from technology ESL to preheat hot water.

Proposed energy saving measures, investments, and expected results

The proposed measure consists of installation new middle-pressure steam boilers, utilization of condensate waste heat for preheating combustion air and utilization of waste heat from technology ESL for preheating hot water. The measures lead to a calculated energy savings of 846 MWh per year.

Implemented proposed energy saving measures, investments and results achieved

The investment costs are about 241 377€ and the payback period is about 9.3 years in total.

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

Installation new boilers will bring better stabilization of the production process. Measures lead to the reduction emissions of pollutants and CO2 emissions at the local level and reduction the costs associated with producing the amount of required steam.

Involvement of internal stakeholders

The measures are ranked according to the criteria defined with the company in cooperation with the energy auditors. The management was informed about the methodology Steam Up and they have expressed their willingness to participate. They are highly interested in implementing measures to achieve cost—effective energy savings. Measures that have a demonstrable effect (installation of a new medium pressure boiler) on the stability of production are realized.



Moravia Lacto a.s. www.moravialacto.cz

Jihlava, Czech Republic

Dairy production

198 employees

Total (estimated) Investment

€ 241 377

Total (estimated) Saving 846 MWh per year

Non Energy Benefits

Reduced emissions of pollutants and CO₂ emissions at the local level. Reduced water consumption for steam generation. Reduced chemicals for water supply. Environmental protection Modernisation of production process. Stabilization of the production process. Economical (financial increase).