

Companies connection to energy efficiency and sustainability

Skaličan a.s. is well known producer of meat and meat products on the Czech market. Skaličan produces wide range of freshly cut meat, mostly pork and beef. Skaličan innovates own products by using new technologies and modernized machinery. The company strives for a safe and environmentally responsible management that will lead to long-term stability and prosperity.

Steam system

Steam is produced in the central natural gas boiler room and it is used primarily for technology, preparation DHW, heating system, and cooking. Two steam boilers 8 t/h (K2 and K3) are installed in boiler room, only one steam boiler is used (K2). Saturated steam is produced at a pressure 10 bars and a temperature 180°C, then steam is reduced to 4 bars. Condensate return is about 80% due to direct steam consumption of some technological operations. The use of steam is essential for technology.

Steam system problems identified

- The rated output of steam boiler K2 (8t/h) and boiler K3 (8t/h - in the cold reserve) is considerably oversized compared to the current steam consumption. Boiler K3 is at the end of its technical lifetime.
- The water treatment facility for feed water is outdated and over-sized.
- Heat exchange stations are at the end of their lifetime.
- Steam lines are oversized in relation to existing steam consumption, thermal insulation is damaged in some places.

Proposed energy saving measures, investments, and expected results

The proposed measures consist of replacement of boiler K3 with new boiler of smaller output, reconstruction of exchange stations, complete reconstruction of steam and condensate pipelines and installation of new water treatment facility.

This measures leads to calculated energy saving of 2 168 MWh per year.

Implemented proposed energy saving measures, investments and results achieved

The investment costs for the energy saving measures are about 266 600 € and the payback period is less than 4 years.

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

Saving measures increase the overall efficiency of the steam system and lead to the reduction emission of pollutants and CO₂ emissions at the local and global level, reduction water consumption for steam generation, reduction consumption of chemicals for water supply.

Involvement of internal stakeholders

The measures are ranked according to the criteria defined with the company. The management was informed about the methodology of Steam Up and they have expressed their willingness to participate. They are highly interested in implementing measures to achieve cost-effective energy savings.



SKALIČAN a.s.

<http://www.skalican.cz>

Česká Skalice, Czech Republic

Producer of meat and meat products

250 employees

Total (estimated) Investment

€ 266 600

Total (Estimated) Savings

2 168 MWh per year

Non Energy Benefits

Increased product quality
Reduced emission of pollutants and CO₂ emissions at the local and global level
Reduced water consumption for steam generation
Reduced chemicals for water supply
General : Safety increase
Economical (financial increase)