



Berglandmilch, eGen Klagenfurt

Berglandmilch is the largest Austrian dairy firm with around 1.350 employees at 11 locations. The Klagenfurt site specialises in production of three product areas. These include long-lasting milk, bottled PET products (milk, yogurt, ESL beverages) and McDonald's Products (Sundae, Shake, milk coffee). The way energy resources are used plays a vital role at Berglandmilch. Besides the economic aspects, the systematic and efficient use of all energy sources plays a key role in the corporate culture. Over the past years, the company has completed numerous energy-efficient projects and is constantly applying measures aimed at increasing energy efficiency.

Energy efficiency improvements across the steam boiler system

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One-Off Investment Sum

€ 175.000

Amortisation Period

2,8 Years

Savings

€ 62.500/a

1.372.000 kWh/a

Cost Reduction (as % of energy cost)

7%

Year of Realisation

2012

Increased Energy Efficiency by 7%

www.berglandmilch.at

Initial Situation

At the site, a steam boiler (built 1965) with a steam production rate of 7 tonnes/h and an operating pressure of 10 bar is being used for producing saturated steam. The technical design of the plant no longer corresponds to the current state of technology. The average gas consumption lies at 147,000 m³ per month at an efficiency rate of about 90%.

Optimisation of the Steam Boiler

As a measure to improve the efficiency of the existing steam boiler, the feed water tank was replaced, the degassing process optimised and converted to a continuous feed water control mechanism. In addition, a 3-stage

economizer was installed. The existing chimney was also equipped with an inner tube made of stainless steel.

The energy from the economizer is being used for feed water as well as for the pre-heating of fresh water for the saturated steam boiler and clean steam generator.

As a result, the flue gas temperature at partial load was reduced from 195°C to 70°C. Improvements across the overall insulation in the boiler house, steam distribution and condensate return lines have been made. Furthermore, the entire boiler controls as well as all essential measuring and control mechanisms were

renewed. As a result of these measures, the energy efficiency rate was increased from 90% to 97%.

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