

GEEP Project – New steam boiler in a Juice factory

Factory saves energy and water with new steam system

The factory was established in the 1980s and has a production capacity today in the range of 3,500 tons of concentrated fruit juice, (mainly apple), per year. The company's product is exported 100% to Europe, according to long-term agreements. A walk through energy audit was performed in order to identify key areas for energy efficiency measures.

At present, energy consumption at the juice factory is a big part of the production cost. This is because:

- There is significantly high consumption of natural gas due to the operation of an old, inefficient steam boiler.
- The “open loop” steam circuit results in a substantial loss of steam in the production process.
- Metering, and overall control is absent in the plant, and heat distribution losses through deteriorated pipe insulation are also significant.

Today's gas consumption is of the order of 1.1 million m³/year at a cost of 230,000 USD. With the proposed measures the consumption will drop to 800,000 m³/year with a cost of 165,000 USD, (a saving of 28 %).



The Company

Main activities	Fruit juice concentrate
Region	Georgia

Project Goal and Main Investments

Project goals	<ul style="list-style-type: none"> ▪ Replacing the steam boiler ▪ Introducing a better control system for the steam system
Main investments	<ul style="list-style-type: none"> ▪ Installation of a new steam boiler ▪ Installation of a new steam control system ▪ Closure of the steam ‘open loop’ and the return of condensate back to the boiler, saving energy to preheat the water and the cost of treating the fresh water
Investment size	Approximately USD 300,000

Expected Results

Operational results	<ul style="list-style-type: none"> ▪ Better usage of the generated steam ▪ Steam generation at a lower cost
Investment profitability	<ul style="list-style-type: none"> ▪ Annual savings of almost 65,000 USD ▪ Payback period of 2.3 years ▪ An IRR of around 38% on the investment

For more information on how your company can receive financing for energy efficiency projects, visit www.energocredit.ge, or call +995 32 224962.

The GEEP assignment is funded by EBRD through grant funds by: United Kingdom Sustainable Energy Initiatives Funds, Canadian International Development Agency, EBRD-Special Shareholders Fund and Early Transition Countries Funds