

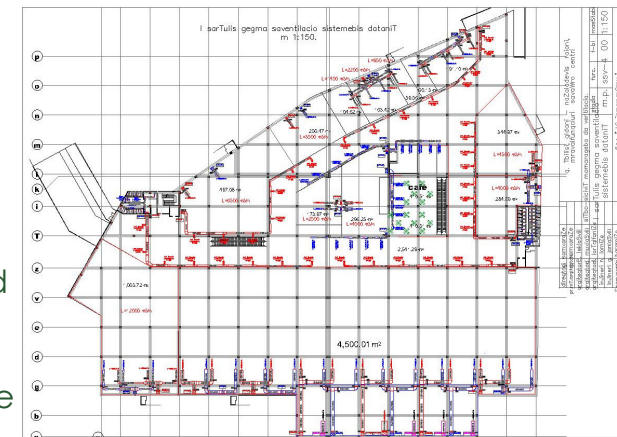
Energy Efficiency:

Building Design improvement (p. 1)

Energy efficiency for a planned shopping mall

A Georgian company focussing on the development and rental of large-scale shopping centres is planning the construction of a new mall. With a total area of 33,000 m² in the Gldani district, the initial design of the building considered using a standard design for wall erection, sandwich panels of 60 mm thickness for the roof and a heating, ventilation and cooling system without heat recovery.

The Energocredit experts performed an energy audit and identified energy saving potentials. By implementing the suggested measures and enhancing the wall construction with better insulated sandwich panels (50 mm), the use of sandwich panels of 80 mm thickness for the roof construction and installing a heat exchanger, the shopping mall will save about 5,400 MWh in gas and electricity per year.



A new Georgian shopping mall with highest standards: This will save 240,000 USD or 41% of the forecasted energy consumption every year.

Energy Efficiency / Georgia:

Building Design improvement (p. 2)

Energy efficiency in a new shopping mall

Main Investment

- Introducing better thermal characteristics of the building shell
- Installing heat exchangers in HVAC system

Size of Investment

Approx. USD 2,390,000

Date of Implementation

2014-2015

Operational Results

- Reduced energy consumption compared to similar buildings in the country
- Higher client's comfort

Investment Profitability

- Expected annual savings of 240,000 USD
- Payback period of 9.9 years
- An IRR of around 11% on the investment



**Energy demand lowered
by 5,400 MWh per year
(-41 %)**