

Hyclean Automation System

Hot Water Energy Calculator

Energy consumption for hot water:
calculate, simulate, optimize

Building characteristics

Name of the building: My building
 Building use type: Large public building
 Building age class: 1980 to 1995
 before 1980 | 1980 to 1995 | 1995 to 2010 | after 2010
 Usable space: 770 m²
 Year of construction of the hot water system: 1994
 Continue

Your current energy demand for water heating

Energy demand per year: 28324 kWh
 CO₂ emissions per year: 8781 kg
 Energy costs per year: 2266 €

Optimising your hot water energy consumption

Hyclean AS with electronic balancing valves and insulation optimization where deficient
 Retrofit Hyclean AS
 Lowering the temperature (Lowering the temperature to 60 °C)
 Modernisation of the plant technology (Modernise water heating technology)

Energetic losses before and after optimisation

Category	Originally	Optimized
Hot water consumption	12034 kWh	6575 kWh
Generation losses	3413 kWh	2349 kWh
Storage losses	7700 kWh	2349 kWh
Distribution losses	9274 kWh	3272 kWh

Possible energy savings per year: 5529 kWh/Year
Saved energy costs per year: 499 €/Year
Reduction of losses: 35 %
Saved CO₂-emissionen: 1774 kg/Year
Saving on the cost of care: 1980 €/Year

An investment in Hyclean AS pays off

Hot Water Energy Calculator

Calculate your energy saving potential

Energy consumption in buildings must be further reduced in order to achieve climate targets. The optimization of drinking water installations offers a huge savings potential, and this is still grossly underused.

GF Piping Systems has developed an online calculator is able to quickly calculate the amount of energy needed to produce hot water in a building with ease: the "Hot Water Energy Calculator". The online calculator can also be used to simulate the potential energy saving if measures have been taken to optimize the drinking water system – while maintaining drinking water hygiene. The amortization period of the investments made and the savings in subsequent years are also shown graphically. The Hot Water Energy Calculator can be used free of charge via the following link: www.gfps.com/hot-water-energy-calculator

1 - calculate

Building characteristics

Name of the building My building

Building use type: Single-family house Row house Apartment building Large public building

Building age class: before 1980 1980 to 1995 1995 to 2010 after 2010

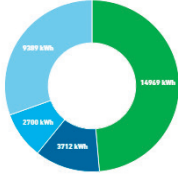
Useable space: 900 m²

Year of construction of the hot water system: 1998

[Calculation details](#)

2 - simulate

Your current energy demand for water heating



Category	Value
Hot water consumption	14919 kWh
Generation losses	2700 kWh
Storage losses	3712 kWh
Distribution losses	9287 kWh

Energy demand per year: **30771 kWh**

CO₂ emissions per year: **9539 kg**

Energy costs per year: **2462 €**

3 - optimize

Optimising your hot water energy consumption

- + Get to know your plant with the Hycleen Automation System
- + Approaches to optimisation easily recognisable
- + Set the optimum system operating point
- + Success control and documentation of optimisations
- + Drinking water hygiene always comes before saving energy
- + The reported increases in efficiency always presuppose compliance with the prescribed minimum temperatures of 55°C

Hycleen AS with electronic balancing valves and insulation optimization where deficient

Retrofit Hycleen AS

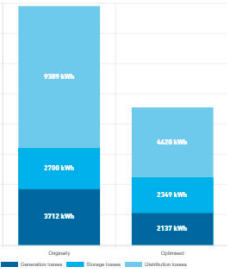
Lowering the temperature

Lowering the temperature to 68 °C

Modernisation of the plant technology

Modernise water heating technology

Energetic losses before and after optimisation



Category	Before (kWh)	After (kWh)
Generation losses	2700	4229
Storage losses	3712	2137
Distribution losses	9287	2349

Possible energy savings per year: **6978 kWh/Year**

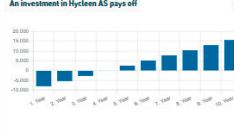
Saved energy costs per year: **626 €/Year**

Saved CO₂-emissions: **2234 kg/Year**

Saving on the cost of care: **1980 €/Year**

Reduction of losses: 43 %

An investment in Hycleen AS pays off



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