

# Lahti

Renovation site

# Lehtiojantie, Lahti



**Renovation measure**

Wastewater heat recovery system

**LAHDENTALOT**



## Basic information

Building type

**Assisted living apartment building”**

Number of residential apartments

**190**

Year of construction

**2014**

Contractor/supplier

**Nastolan LVI-ala Oy, Ecopal Oy**

Renovation time

**The end of 2020**

## Measures implemented with project funding

Installed wastewater heat recovery system, which serves as an additional heat source for the geothermal heat pump

## Other measures

Renewing the geothermal heat pumps

## Initial situation

Calculatory emissions tCO<sub>2</sub>/year

**241,0**

Energy consumption, heating MWh/year

**291,0**

Energy consumption, electricity MWh/year

**1 538,4**

Energy efficiency class

**B**

## Impact

Calculatory emission reduction tCO<sub>2</sub>/year

**28,8**

Calculatory change in energy consumption, heating MWh/year

**- 106,5**

Calculatory change in energy consumption, electricity MWh/year

**- 63,6**

Energy efficiency class after

**B**

Realized emission reduction  
09/2022–08/2023

**47,7 tCO<sub>2</sub>/year**

Realized emission reduction  
09/2023–08/2024

**40,2 tCO<sub>2</sub>/year**

# Costs

## Project measures

Contract and equipment costs

**60 000 €**

## All measures

Contract and equipment costs

**207 950 €**

Change in calculatory energy costs per year

**- 12 288 €**

Change in realized energy costs per year

09/2022–08/2023

**- 9 164 €**

09/2023–08/2024

**- 8 558 €**

Calculatory emission reduction costs

**7 229 €/tCO<sub>2</sub>**

Realized emission reduction costs

09/2022–08/2023

**4 362 €/tCO<sub>2</sub>**

09/2023–08/2024

**5 174 €/tCO<sub>2</sub>**

Calculatory payback period

**16,9 years**

Energy is recovered from domestic hot water, which would otherwise end up in the sewer system along with the wastewater

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