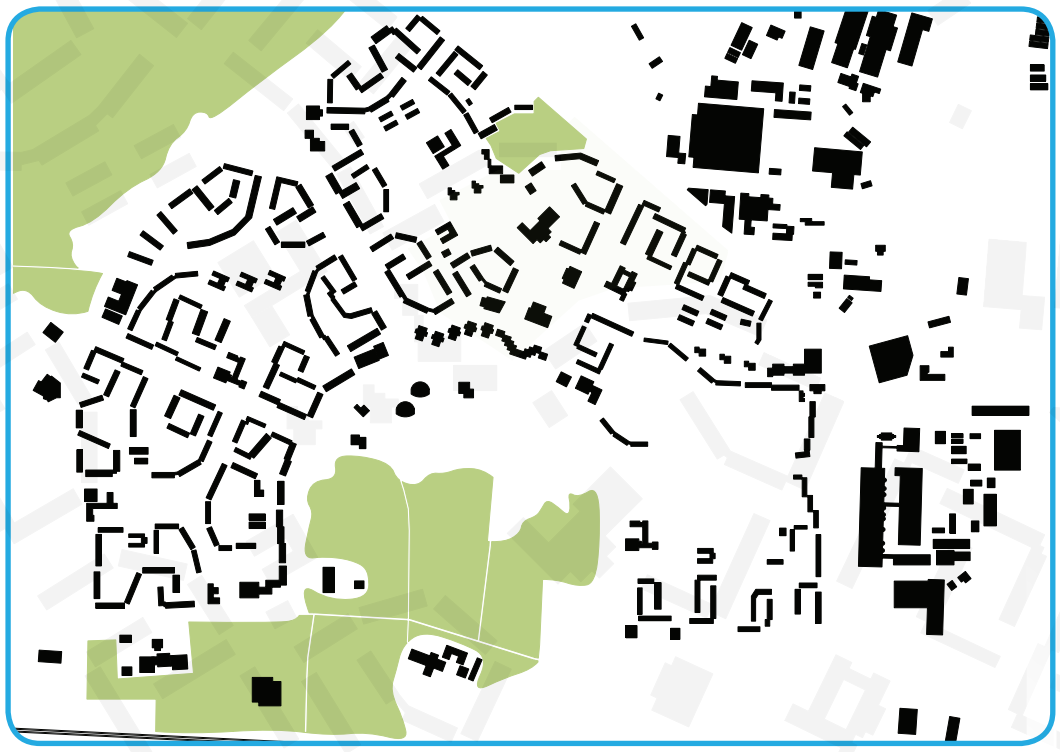
intense
energy efficiency

# RIGA
## LATVIA

### Infomation about the municipality

**Location:** Latvian capital city, at Daugava river mouth into the Baltic Sea
**Altitude:** 10 m
**Inhabitants:** 747,200
**Expected development of the municipality:**
New settlements of detached houses and new multi storey houses , also erection of public and business buildings in the post industry areas of the city



**Miniproject title**

# HEAT RECOVERY FROM FLUE GASSES IN RIGA CITY DISTRICT HEATING PLANTS, AND ITS INFLUENCE ON FUTURE SETTLEMENT PLANNING

## SHORT DESCRIPTION

### 1. Project background & goal

District heating (DH) is the dominant type of heat supply in Riga. 92% of all of the DH heat is produced in the combined heat and power (CHP) plants. Initially the town authorities wanted to build another CHP nearby an existing one to cover energy needs of a new planned settlement, but the project aims to prove that the heat recovery approach at the existing plant can help to cover new needs and that construction of a new plant is not needed.
The objective of the project is to implement best available technology (BAT) in city heat production, promote climate tackling activities and to disseminate experience of energy efficiency achievements in both local and international level. The project will allow to evaluate the value of utilized extra heat in the number of heat plants. Extra capacity of existing heat plants makes available more efficient heat supply of both new and old multiapartment buildings.

### 2. Main project aspect/topic

> Analysing potential of heat recovery, through analysing current efficiency of installation and maintenance costs vs. energy gains in the new approach - less fuel for additional heat)
> Technical and planning recommendations for a new district heating technology: satisfying bigger demand with existing energy installations and sources

### 3. Main Energy Efficiency aspects

Energy efficiency of central DH systems

### 4. Miniproject activities

> Preparation of the Brochure with description of the project process for the REA website
> Progress reports of Riga City Heat supply Development concept 2006 – 2016
> Presentation of the project in the Seminar of International Energy Days of Riga in 2010.
> Collecting data and conducting a cost-benefit analysis of applying the new heat recovery system - installation and maintenance costs vs. energy gains (less fuel for additional heat)
> Developing a set of technical recommendations (for experts) and recommendations on settlement planning based on energy supply options (for municipal decision-makers)
> Developing a simple software for transfer/application of the calculation in other municipalities

### 5. Main challenges

Turning recommendations into actual implementation by the Riga city authorities

### 6. Key actors and their role

> JSC "Rigas siltums", District heating company – utility – owner of heat plants, in which the mini project is technically implemented.
> Riga Municipal Agency "Riga Energy Agency" – main promoter of the project.

**Responsibility for implementation:** "Riga Energy Agency", Energy Information Centre

### 7. Main steering instrument(s) used by municipality

> Calculation tools
> Monitoring progress through DH company "Rigas siltums" annual reports, as well as Annual progress reports of Riga City Heat supply Development concept 2006–2016.

### 8. Concrete miniproject results

> Monitoring and dissemination of results of DH system technical improvement as input in city development planning
> Project included in the list of energy efficiency improvements of Riga's SEAP

### 9. Added values/lessons for transfer and dissemination:

> Simple software to be applied to calculation in other municipalities, demonstrating heat recovery potential in similar CHP plants

## AFTER INTENSE

### 10. Financing plan

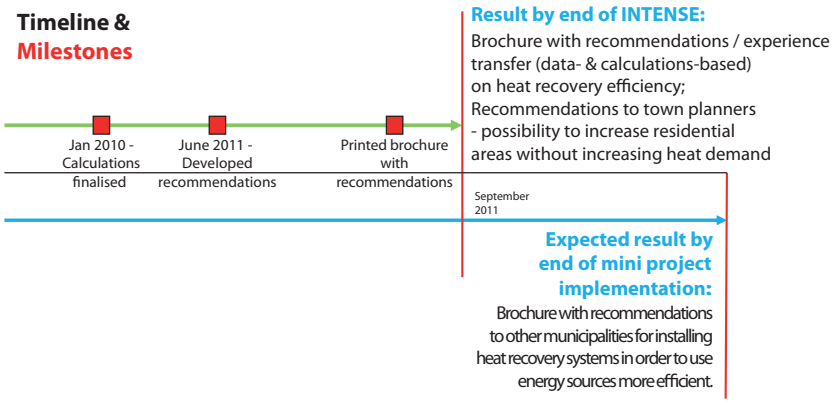
Riga Energy Agency is responsible for Riga City Heat supply development concept implementation and monitoring. Mini-project is covered by this responsibility and covered by REA budget.

### 11. Expected result by end of the total project

The implementation of project shall reduce natural gas consumption already by the current heating season.

### 12. $CO_2$ reduction potential of the project:

7,240 tonnes CO2





Rīgas enerģētikas aģentūra

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MINI-PROJECT FACT SHEET




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