



RENEWABLE ENERGY IN PANEVĖŽYS

<https://www.panevezys.lt/en/welcome.html>

Panevėžys is the fifth largest city in Lithuania with over 100 000 of residents. The city is famous for its cultural and sports life. It develops industry, modern business ideas and is open for investments. Nature and ecological life style is cherished. The city is open for changes and novelties in respect to progress and improvement.

The City of Panevėžys started developing a district heating system 56 years ago. The needs for heat supply and the development of heating economy has been influenced by the growth of city industry and living districts.

Nowadays, Panevėžys City Municipality continues the development of district heating and supports the goals connected with energy and climate change. It includes reduction of the amounts of greenhouse gas emissions and the increase of renewable sources in heat production.

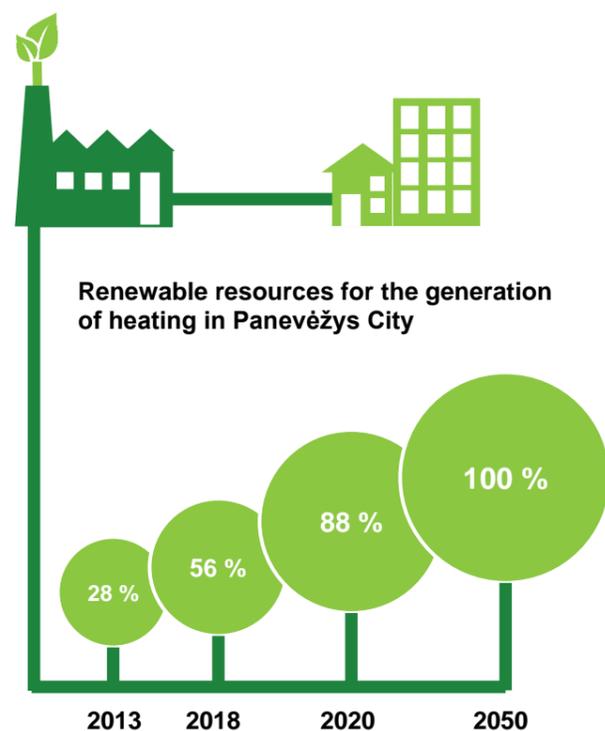
The Heating Supply Company "Panevėžys Energy" provides heat and hot water to the consumers. The residents are the main consumers of district heating accounting for 73 per cent of the produced heat.

The annual heat demand is 390 GWh. At present, about 80 per cent of supplied heat is produced in boiler houses, the remaining part is purchased from independent heat producers. The total length of heating network is 135 km.

With the aim to guarantee the supply of energy to all consumers at lowest costs and least pollution, the Heating Supply Company "Panevėžys Energy" together with the Municipality of Panevėžys City is constantly implementing investment projects, renovating heat production sites and networks.



Photo Saulius Zaura



The reconstruction of heating network of the city is taking place when the new ones replace the old pipelines. Renovated pipelines reduce the loss of heat in networks. Thus, the amount of produced heat is becoming lower, the used energy resources are saved and at the same time, less pollution is emitted. Since 2013, over 17 km of heating network has been renovated in the city. The loss of heat in the networks has been diminished from 17 per cent (2013) to 15 per cent (2018).

By the help of expanded use of biofuel and new technologies the main city boiler has been reconstructed. New boilers and economizers have been installed. This brings lower costs of heat production, the amounts of imported fuel (natural gas) is reduced and the problems of climate change are solved.

After the reconstruction of Panevėžys City Boiler house, installation of new biomass boilers, since 2013 to 2018, the amount of biofuel in production of heat has increased from 28 to 56 per cent. In refusing natural gas and using biofuel, in five years, the amounts of CO₂ emissions in the city has reduced from 83 thousands of tons to 42 ones.

In 2019, a new biofuel boiler of 10 MW appeared and in 2020, one more boiler of the same capacity will be installed. Thanks to these boilers, the use of biofuel will increase by 88 per cent and the emissions of CO₂ will decrease by 8 tons in a year in Panevėžys City.

The future of sustainable energy can only be connected with advanced solutions and investments which is mostly based on EU financial allocations.

In 2013–2018, in implementing the projects supported by European Union Structural Funds, over 19 million Euros has been invested into the heating economy of the city, 7,6 million Euros of it accounts for EU support.

The way of district heating becomes attractive when there is no need to care about fuel, heating, maintaining and repairing of equipment, when fire protection is guaranteed and cleaner environment is made. Thus, with every year, more and more consumers take into consideration the costs of heating when using different types of heating. They also wish to be connected to the district heating system. Since 2013, the capacity of the newly installed heating points increased by 5 MW.

Advanced solutions and investments into the heating economy bring contribution to effective heating production with reduced heating price. In 2012–2018, the average heating price has decreased by 24 per cent.

Panevėžys will further support the continuation of energy policy by implementing the goals of independent energy strategy of Lithuania with the aim to increase the effectiveness of use of renewable resources and energy supply. At the same time, it also contributes to the EU goals of Energy, Climate Change and Air Pollution Decrease.

Panevėžys City Municipality is fully aware of a complex energy efficiency system and tries to establish it. This would include renewable resources and environmental energy and by the same time, it would gradually terminate the emissions of greenhouse gas in the city. Panevėžys will continue the expansion of district heating system and modernisation, covering the upgrading of heating network and higher possibilities of the use of biofuel for heat production. The application of new technologies of heating pumps, solar and wind energy for district heating is also planned. The city infrastructure is based on the motivation of people to refuse cars and start walking on foot, cycling or using public transport. This will provide the inhabitants with the possibility for healthy lifestyle environment.

Successful Projects of DH supply in Panevėžys

- Reconstruction of the main boiler of Panevėžys City in 2012. Two biofuel boilers of 8 MW each and the economizer of 4 MW have been installed. This has decreased the emission of CO₂ by 16 thousand tons per year.
- Installation of the economiser 3 MW in the main boiler of Panevėžys in 2017. The amount of CO₂ emission decreased by 2, 5 thousand tons per year.
- Reconstruction of Panevėžys boiler house in 2016. The biofuel boiler of 12 MW decreased the emission by 15, 7 thousand tons per year.
- Reconstruction of Panevėžys boiler in 2019. The biofuel boiler of 8 MW and the economiser of 1,8 MW decreased the emissions of CO₂ by 7 thousand tons per year.
- Since 2013, over 17 km of heating network has been renovated in Panevėžys City. The loss of heat in the networks has decreased from 17 per cent (2013) to 15 per cent. (2018).



After all, we are all connected!