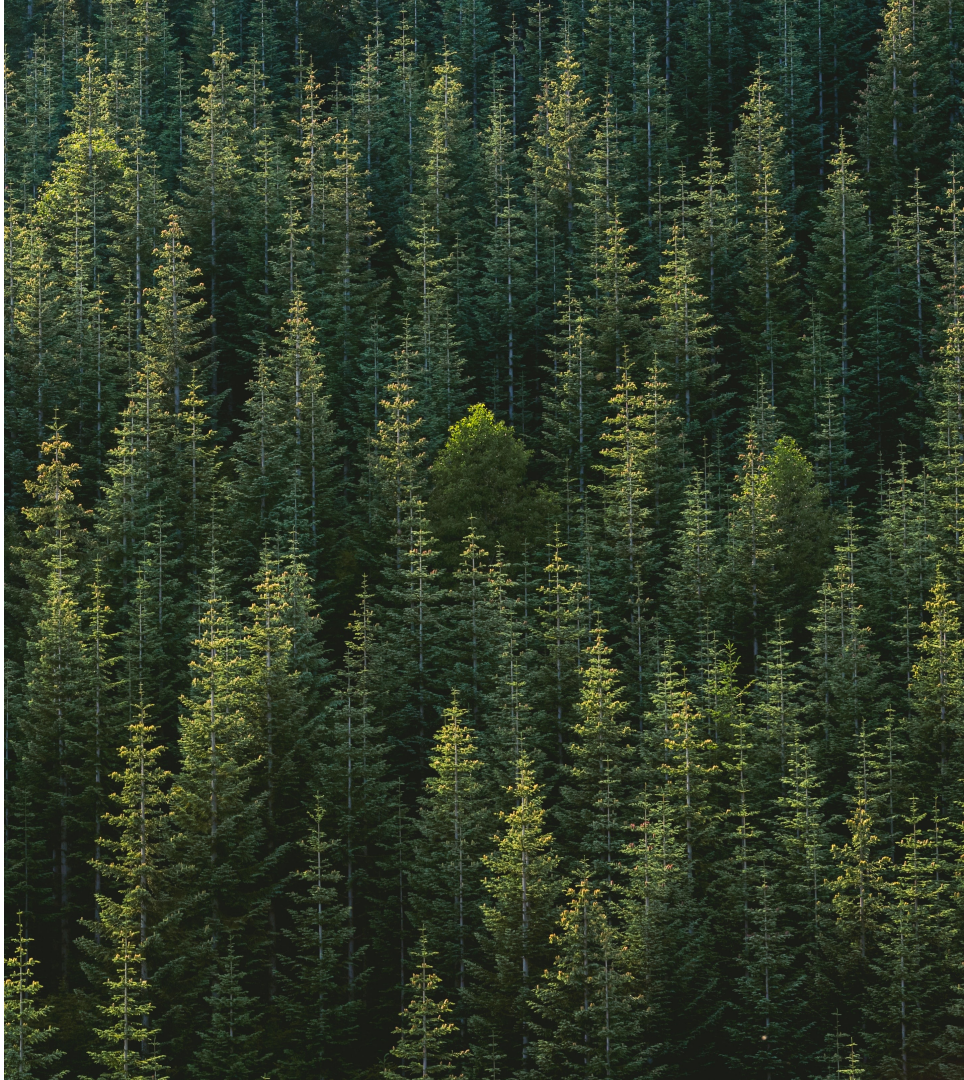
LITBIOMA

FROM GAS TO BIOMASS: SUCCESS STORY OF LITHUANIA

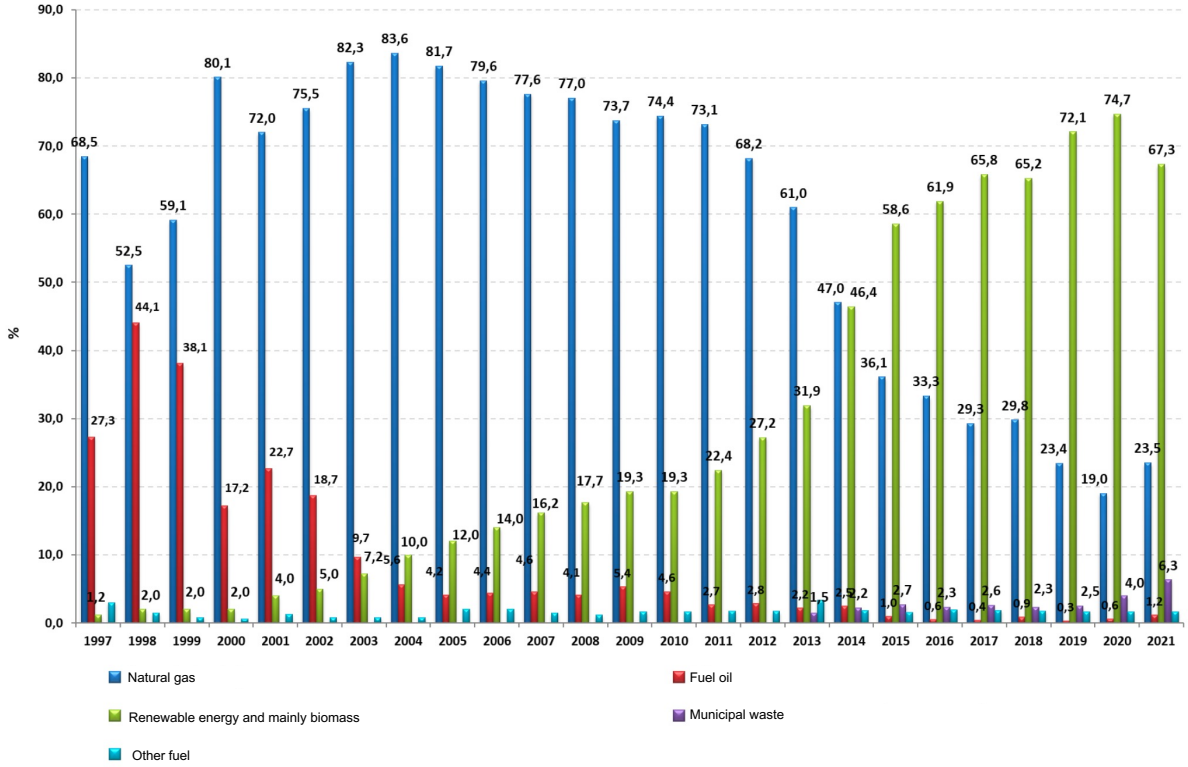
2023-04-25
WBA webinar



LITHUANIA AND ITS 3 MILLION INHABITANTS WERE HEAVILY DEPENDENT ON NATURAL GAS IMPORTS FROM RUSSIA.

HOWEVER, MANY LOCAL BIOMASS RESOURCES HAVE BEEN (AND REMAIN) AVAILABLE.

THE USE OF BIOMASS IN THE DISTRICT HEATING SECTOR



Lithuanian Association of Heat Suppliers

Primary fuel structure in DH sector in Lithuania 1997–2021

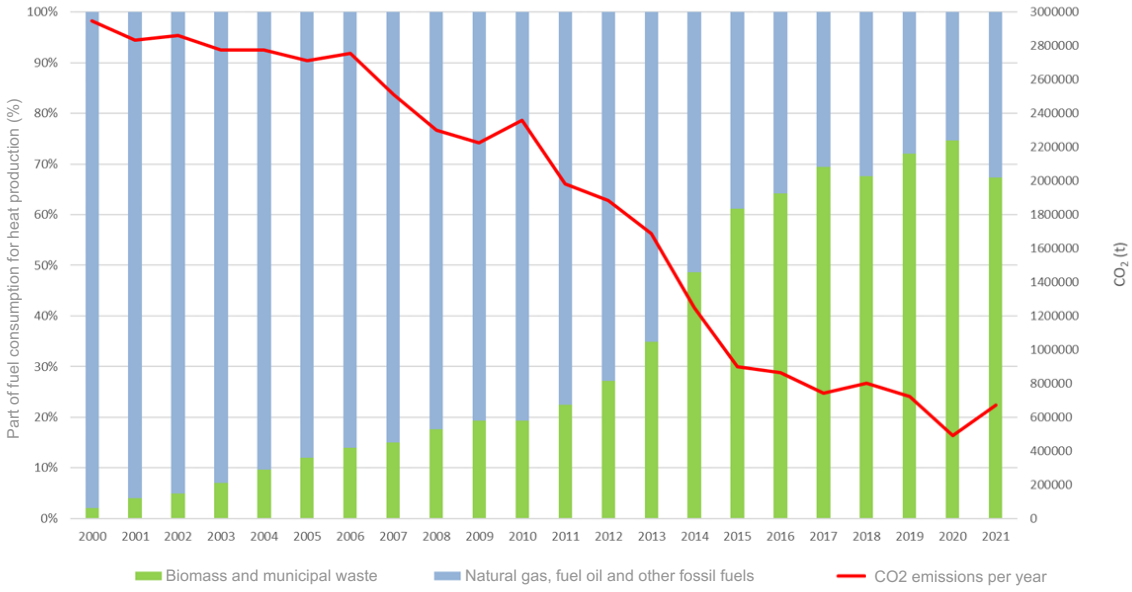
ENERGY FROM BIOMASS

		2022	2023
District heating		75 %	~90%
Private households		~80 %	~80 %
Industry		~35 %	~40 %
Electricity		12 %	~15 %

ONE OF THE MAIN REASONS FOR THE GROWTH OF THE LITHUANIAN BIOENERGY SECTOR IS ENORMOUS RENEWABLE ENERGY RESOURCES.

FORESTS COVER 2.205.100 HA (33,7%) OF LITHUANIAN LAND.

The transition from imported gas to local biomass fuel **not only resulted in a cost reduction for consumers but also a decrease in CO2 emissions by more than 70%.**



Lithuanian Association of Heat Suppliers

AS OF JULY 2022, BIOMASS WAS MORE THAN 7 TIMES CHEAPER THAN NATURAL GAS.

LITHUANIA'S NATIONAL POLICY PLANNING AND STRATEGIC DOCUMENTS FOR THE HEATING SECTOR FORESEE THAT BIOMASS IS, AND AT LEAST UNTIL 2040, WILL BE THE MOST IMPORTANT SOURCE OF ENERGY FOR HEAT PRODUCTION.

Cogeneration is also becoming more widely used in Lithuania. Its combined heat and power (CHP) process **is crucial to ensure lower CO2 gas emissions and a smooth decarbonization process in the country.**

Vilnius CHP plant

COGENERATION IN LITHUANIA

CHP plants allow heat and power to be generated simultaneously and to use both forms of energy, thus achieving greater efficiency. **CHP plants can save up to 40% of primary energy sources.**

Lithuanian Government consider Vilnius and Kaunas cogeneration power plants, which are owned by Ignitis Group**, as economic projects important to the state**.

VILNIUS CHP PLANT

The waste-to-energy unit of Vilnius CHP started generating electricity at the beginning of 2021. After completing the biomass unit, the energy will also be generated using biomass.

Here are some **key facts about the Vilnius CHP plant:**

- It plant substitutes Russian gas in its capacity and allows a lower heating bill to citizens.
- The plant will supply heat to over 230.000 households (40–45% of the city of Vilnius)
- The plant will use local and renewable energy sources and generate local power and heat, which increases the national energy independence.
- Waste will be managed in line with the hierarchy established by the European Union, with the aim of minimising landfilling and maximising beneficial use of waste.

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