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ENERGY TRANSITION
Climate-4-CAST

Riga’s CCC action portfolio and GHG inventory

Integration of solar energy

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31-03-2026

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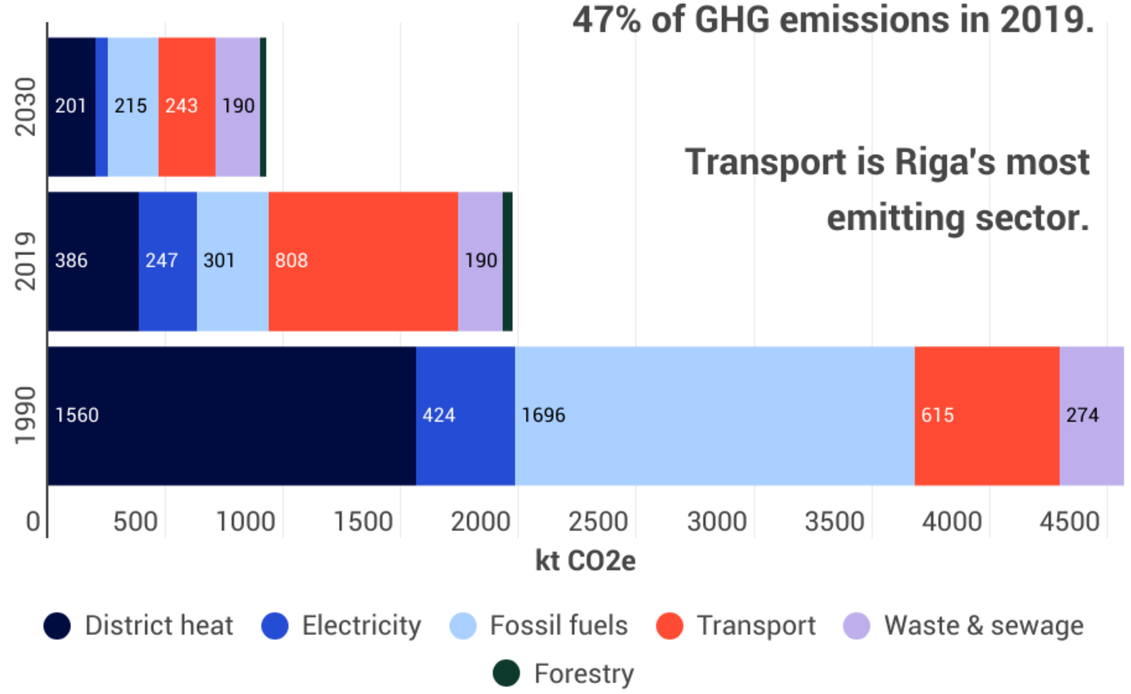
Main sources of Riga's GHG emissions

Use of fossil fuels in district heating, electricity generation and local combustion produced 47% of GHG emissions in 2019.

Transport is Riga's most emitting sector.



Riga’s 2030 goal in GHG reduction: 30% or 53% compared to 2019

CCC ambition is higher than the goals set in Riga’s Development Programme and Investment Plan 2021-2027.

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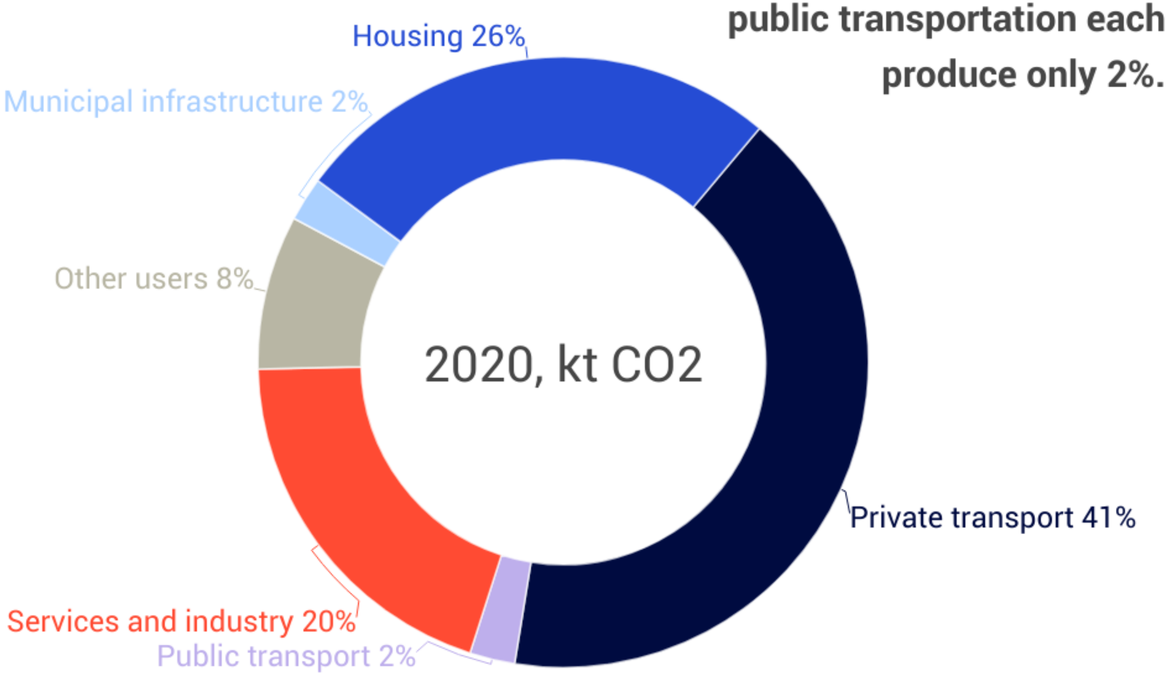
GHG emissions by sector

In 2020, Riga's total* CO_2 emissions were 1629 kt. Municipal infrastructure and public transportation each produce only 2%.



*Excluding waste and forestry sectors.

Municipal infrastructure accounts for a small share of Riga's GHG emissions – 2%.

Most measures must be implemented in cooperation with other stakeholders – important to consider the boundaries and impacts of municipal climate budgeting.

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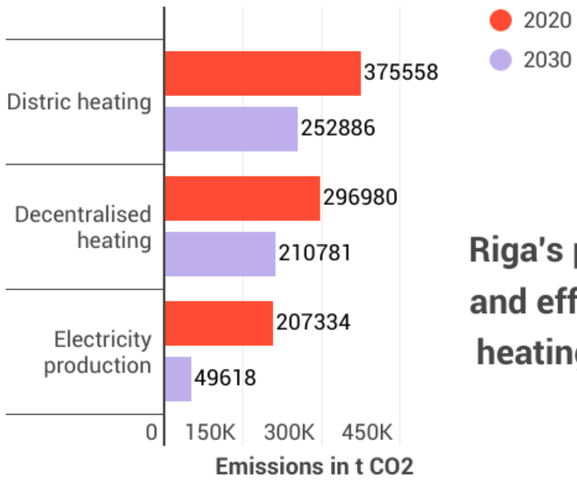
Energy production



37%

of total reduction

Riga's priority is phase-out of fossil fuels and efficiency measures in Riga's district heating (DH) and decentralised systems.

7 fields of action

E1	Zero-emission & RES techologies in DH
E2	Connect new clients to DH
E3	Efficiency measures in DH systems
E4	Low-temperature DH networks
E5	Innovation projects
E6	Electrification, RES or DH for decentralised heating
E7	Use of RES for electricity generation

Decarbonization of electricity supply is expected to contribute most, followed by heat energy

The National Energy and Climate Plan envisions a 100% RES share in electricity generation by 2030. The target may be revised.

Riga’s district heating strategy is under development. The more realistic scenario will depart from the ambition set in the climate contract.

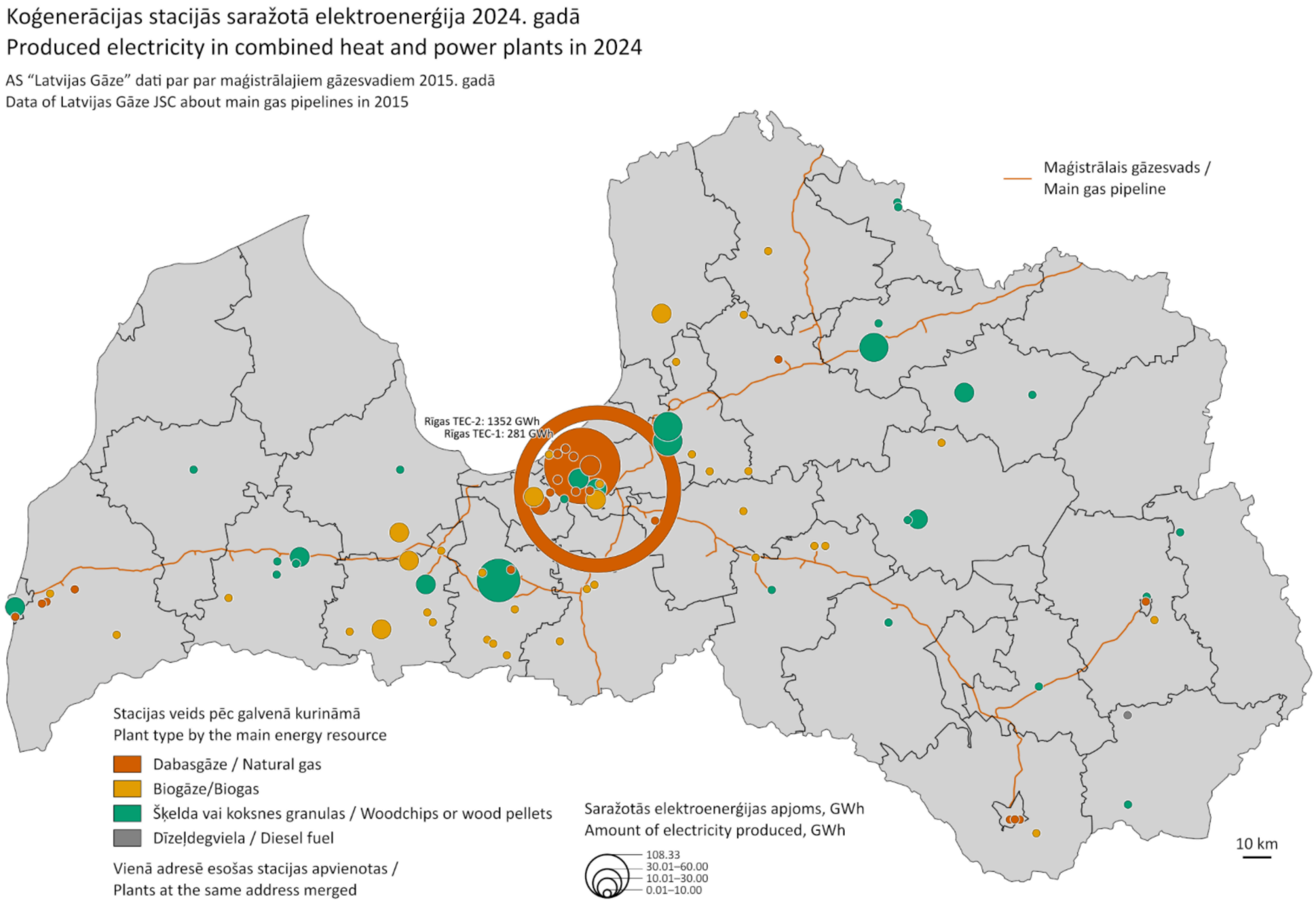


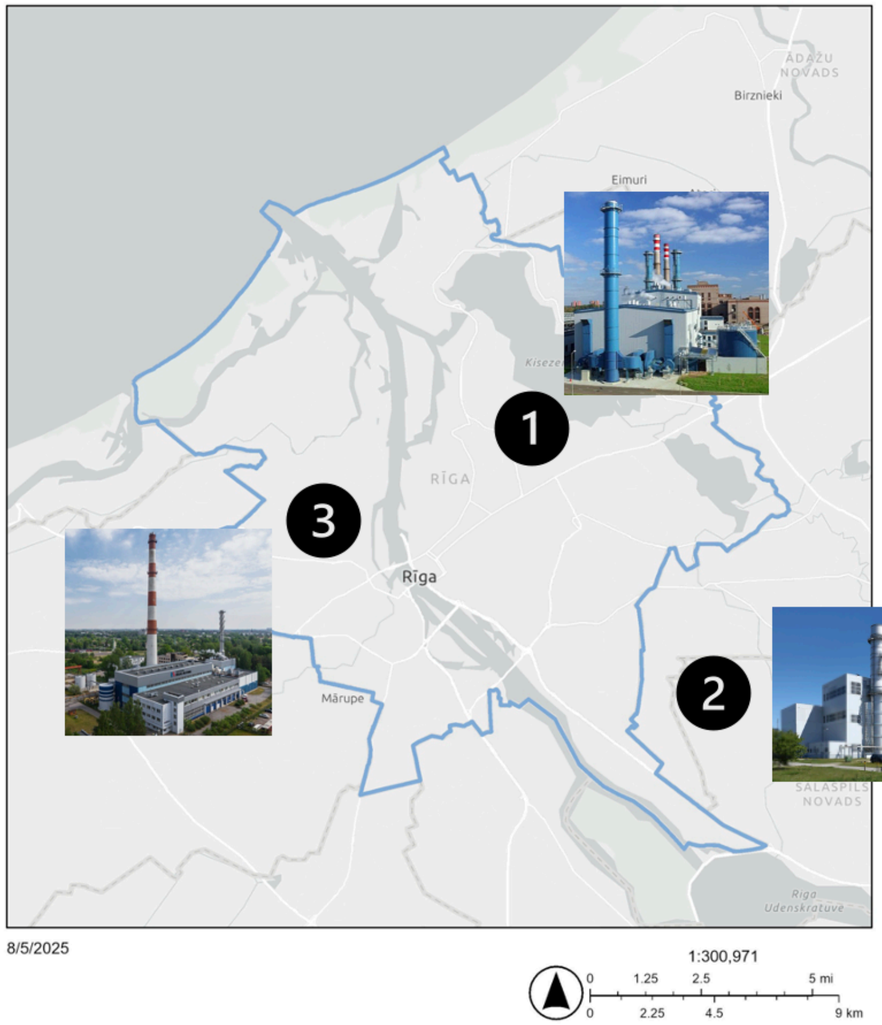
Image: Official Statistics Portal

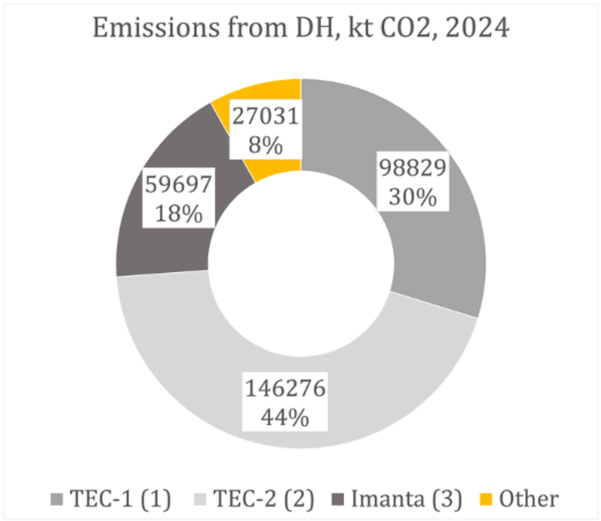
Challenge I – the highest share of fossil fuels

95% of electricity produced in Riga is fossil

LV average – 27% in 2024

Riga's DH emissions and final consumption

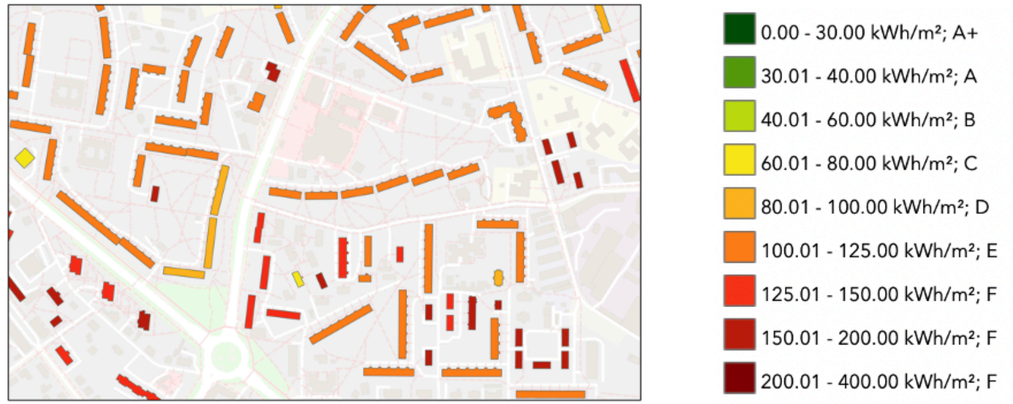




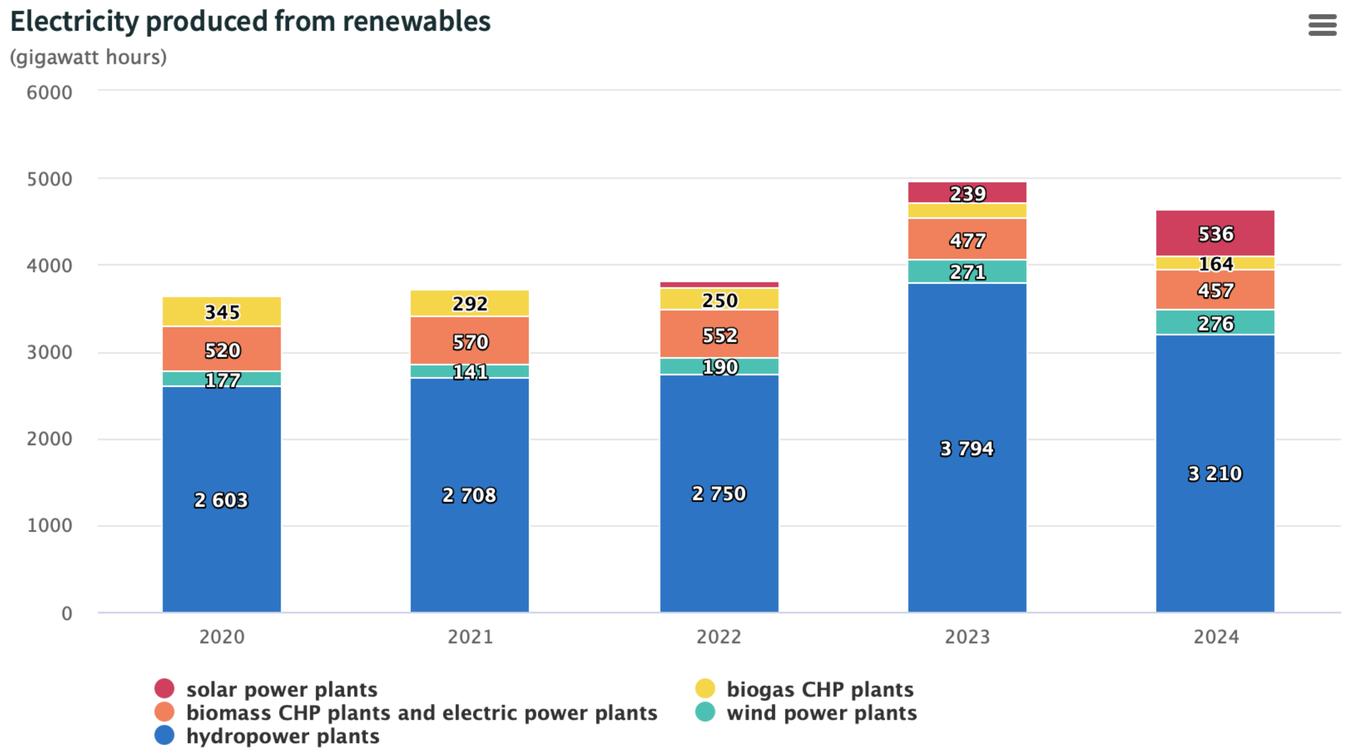
There are 55 energy production facilities in Riga's district heating system.

The 3 largest plants contribute to 92% of the total CO2 emissions.

Final consumption is above optimal because of low energy efficiency in the building sector.



CCC Measure E7: Renewable electricity generation



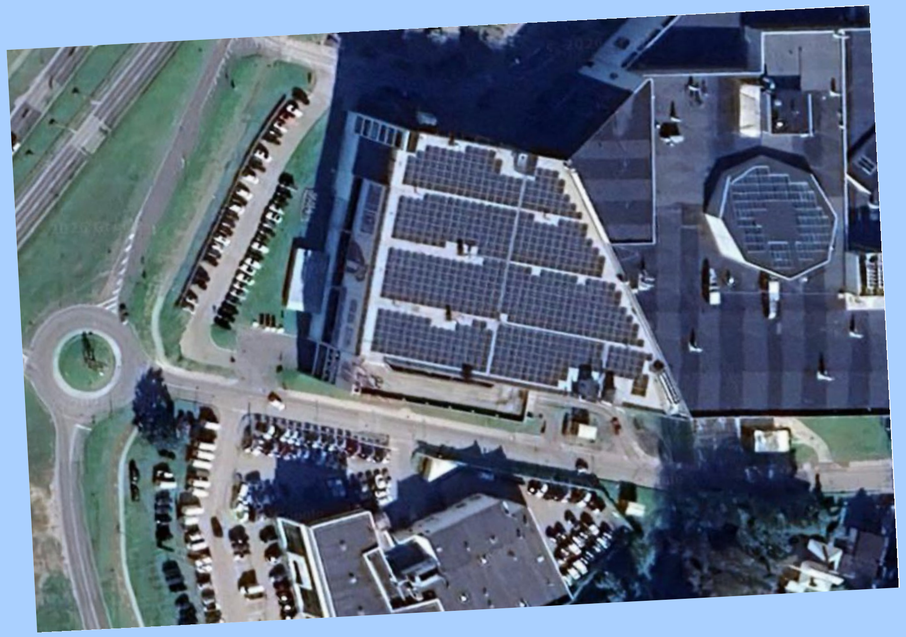
Refer to the OSP database: ENA040

Image: Official Statistics Portal

Integration of solar energy: national and local measures

On the national scale, hydropower contributes most. Solar generation has increased in the last few years. Wind potential still untapped.

Latvia has the 4th highest share of renewables in the final consumption – 43% in 2024. 7th place in renewable electricity consumption – 55% in 2024.



Solar “boom” started in the detached housing sector, followed by commercial buildings. Multiapartment buildings – rare cases.
Major impact of EU and ETS funding

Image: Google Maps

Installed PV capacity in Riga increased from 10MW at the end of 2022 till 64MW in 2025.

There were 2100 microgenerators and 308 solar stations at the end of 2025. 90% of microgenerators belong to natural persons.

Installed solar PV on municipal buildings

Year	kWp
2019	31
2020	31
2021	31
2022	31
2023	81
2024	201
2025	659

More projects in the pipeline, supported by Modernization Fund.

Image: REA

Riga municipality invests energy efficiency savings in rooftop PV for public buildings – EUR 1.2 million

Benefits from participation in the energy management system. Schools and social rehabilitation facilities completed.

Image: Green Liberty

Riga’s district heating company has invested EUR 3.8 million in 49MW electric boiler

The goal is to replace fossil gas when electricity prices are low and provide balancing services to the power system.

Riga’s GHG inventory does not show the impact of local decarbonization measures because a constant CO2 emission factor is applied to the distributed electricity.

CO2 emissions from electricity consumption

t CO2					
	2020	**2021**	**2022**	**2023**	**2024**
Municipality	3630	3301	3861	3687	3758
Total Riga	214000	213000	209000	201000	211141

Local action is integrated in broader energy market and policy conditions

Direct financial impacts.

Direct municipal investments tackle a small part of energy emissions

Collaboration and policies matter. Top-down and bottom-up GHG approaches differ.

Methodological questions about GHG intensity of electricity consumption

Temporal and geographic aspects.

Thank you!

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