



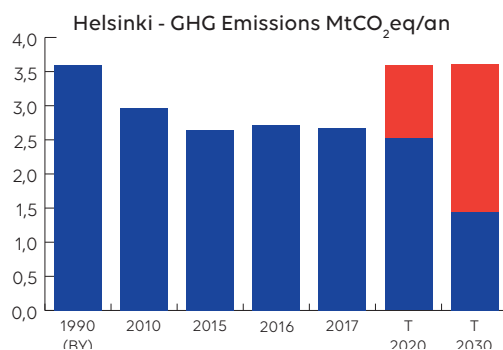
Major progress undermined by heating needs



With a reduction of 24% in overall emissions and 42% in per capita emissions in 2017 (baseline 1990), Helsinki is on track to reach its 2020 target and reduce overall emissions by 30%. In September 2017, the city council therefore approved its objectives for the next four years outlining them in the city's overall strategy, the [Helsinki City Strategy 2017-2021](#), "The most functional city in the world". This programme is based in particular on the pro-active approach of the municipal energy company ([Helsinki Energia](#)), which has prepared an ambitious programme on the role of renewable energies, which has been adopted by the city council.

• THE CHALLENGE OF SUSTAINABLE DISTRICT HEATING AND INSULATION •

To achieve its goals the city must focus on district heating, which accounts for 50% of emissions and was up 12% in 2016 due to the use of coal to meet rising demand. The increase was limited to 1% in 2017, offset by emissions from electricity consumption (-5%) and electric heating (-6%), resulting in an overall reduction of 2% in 2017, i.e. 2.67 MtCO₂eq. Renewable energies still account for less than 15% of energy production dedicated to district heating. But the city is currently exploring its geothermal potential with the drilling of more than 3,000 wells, and is continuing the expansion of solar panels to power public buildings.



Energy efficiency remains another important lever for reducing city emissions, which has set a target of 7.5% for 2017-2025. The first smart thermostat was installed in 2017 to regulate the heating of a pilot building. New standards adopted in 2017-2018 require new public buildings to achieve "near-zero" energy consumption, and building permit concessions are granted to the private sector for low-energy buildings. Moreover, the city is improving its data management

and usage capabilities with the launch of the [3D Atlas 3D](#), which brings together all data relating to energy performance and consumption, heat leaks, etc. from buildings. It is also available to the various operators in the housing sector.

• INNOVATIONS IN TRANSPORT AND WATER TREATMENT WHOSE IMPACTS ARE STILL TO BE OBSERVED •

Emissions from transport have changed little in recent years, with a decline of 9% since 1990 and 4% compared to 2016, representing around 20% of overall emissions. The city multiplied its initiatives in 2017 to encourage the use of public and soft transport and to achieve carbon neutrality in these categories in 2025: redevelopment of the network, 3-fold increase in cycle lanes, extension of the metro, fast-charging buses and more effective electric trams. Charging stations partially powered by solar energy and for electric cars have been installed. Other innovations have also proved their worth, such as the virtual health service enabling nurses to provide care remotely and avoid 200,000 km of travel, and an internet platform offering several business services such as carpooling, electric bikes etc.

Finally, Viikinmäki, Finland's biggest wastewater treatment plant, which treats the wastewater of 800,000 people including the residents of Helsinki, in 2013 became the first in the world to measure its emissions of different gases on a daily basis. Despite removing nitrogen before discharge into the sea, recently improved through denitrifying bacteria, the plant emits 134 tonnes/ year of nitrous oxide, in addition to 350 tonnes/ year of methane.

MAIN SOURCE:
[ANNUAL ENVIRONMENTAL REPORTS OF THE CITY OF HELSINKI](#)