

Annual Sustainability-Linked Bond Progress Report 2023



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The city of Västerås Sustainability-Linked Bond framework states that a Sustainability Linked Bond Progress Report is to be reported on an annual basis.

To make the 18 months old progress data slightly more interesting, it is completed with samples of actions for progress taken the year after.

1. Selected Key Performance Indicator (KPI)

The KPI that has been included for the purpose of this Sustainability-Linked Bond Framework is the Västerås climate KPI CO₂e per inhabitant in the Västerås municipal area.

1.1 CALCULATION METHODOLOGY

Fossil source emissions per inhabitant in tons of CO₂e of year *i* in the Västerås municipal area, the year of the datapoint.

$$\text{KPI} = \text{CO}_2\text{e}_i / I_i$$

1.2 DOCUMENTED CHANGES IN THE UNDERLYING EXTERNAL METHODOLOGY FOR MEASURING CO₂E

The SMHI data distribution methodology for sub segments of bus traffic and water transport has been refined for the 2023 data submission to distribute by fuel source. In the energy and heating segment, several factors of stationary combustion have been refined. Please see the reference publication of SMHI: [Metod- och kvalitetsbeskrivning för geografiskt fördelade emissioner till luft \(submission 2023\)](#) for detailed description.

1990 CO ₂ e absolute levels per 2020 methodology	1990 CO ₂ e absolute levels per 2021 methodology	Change in baseline +/-
999 544	1 013 718	+14 173

2023-07-06

2. KPI & SPT performance

The KPI baseline year is 1990. The SPT breakdown % is persistent to 2040. Underlying KPI data collection and verification is conducted by SMHI and Statistics Sweden.

Report year			2023	2024	2025	2026	2027	2028	2029	...	2042
Data year (i)	1990	2020	2021	2022	2023	2024	2025	2026	2027	...	2040
Absolute emissions (CO ₂ e) *	1 013 718	472 183	525 042								
Inhabitants **	119 761	155 551	156 838	158 653							
KPI CO ₂ e/inhabitant	8,46	3,04	3,35								
Reduction from 1990	N/A	64%	60%								
SPT annual breakdown	N/A	63%	64%	65%	67%	68%	69%	70%	71%	...	85%
Performance vs SPT	N/A	+1%	-4%								

*Absolute emissions CO₂E, [National Emissions Database](#), SMHI.

**[Folkmängden i Sveriges kommuner 1950-2022](#), Västerås, Statistics Sweden.

Off-track progression of the KPI (60% vs SPT breakdown target of 64%).

The Y/Y change in absolute emissions puts Västerås further away from the target than the year before.

From to the record warm (and pandemic) year of 2020 with low energy and heating needs, the temperature-wise more normal year of 2021 resulted in a return to normal levels of CO₂e emissions from the energy and heating segment. Apart from the energy and heat segment, CO₂e emissions from animal related agriculture increased. A post pandemic increase of heavy truck transports and use of working machines also increased CO₂e emissions Y/Y. Please see the [National Emission Database](#) analysis tool for a more detailed view of sub segments.

A mitigating factor for the KPI outcome and SPT performance is an increase in the 1990 baseline figures for absolute emissions due to data distribution methodology refinements by the SMHI.

3. Sample of actions for progress during 2022

- In the new travel center and new district Mälärporten, an AI powered energy design tool has been developed to plan and optimize sustainability, not only on building basis but for the whole area.
- For the new Sättra area, a partner cooperation with RISE has resulted in an improved energy indicator standard to Gold standard.
- The municipal organization have invested in an environmental spend analysis tool powered by the Swedish Environmental Research Institute data to CO₂e monitor our public spending. The municipality also joined BioDriv Öst – biofuel (and vehicles), this cooperation supports procurement of environmentally friendly vehicles with matching fuel.
- A pre-study for a local Climate Promise has been finished in 2022. The Climate Promise could be a way to increase the tempo in the climate efforts through cooperation between local businesses, academia, the civil society and the public sector to work towards the climate goals. The pre-study concludes:
 - there are high climate ambitions among businesses and other actors in Västerås
 - there is a demand for climate cooperation on a tangible level
 - that the municipality is an important part of taking initiatives and gathering the actors
- For residential mobility, Mimer has contracted two new electric carpools that are in place since august 2022.
- A road at the nature reserve and recreational area Björnö serves as a new testbed for green asphalt.
- [Mälarenergi's sustainability report for 2022](#) gives a more positive signal for the outcome of the CO₂e emissions in the energy and heat segment for the next annual progress report.
- At the combined heat and power plant area, Mälarenergi is constructing an energy deposit for 95°C water inside an old cavern previously used as an oil deposit. The deposit is expected to cut the peak load in the district heat production, resulting in fewer CO₂e expensive peak load upstarts in the different plants. When finished, it will be one of the largest energy deposits in Europe.
- Mälarenergi participates in a group of leading actors in the carbon capture and storage (CCS) arena for a pre-study for a possible logistics node for CCS in Stockholm Norvik Hamn under the project flag of NICE – Norvik Infrastructure CCS East Sweden.
- Mimer installed around 290kW in solar panel effect during 2022, exceeding their annual target of 200kW.