Stockholm Grows Sustainably

Sustainable investments in a growing city

A compilation from the financial department, City management office 2O25

Goals:

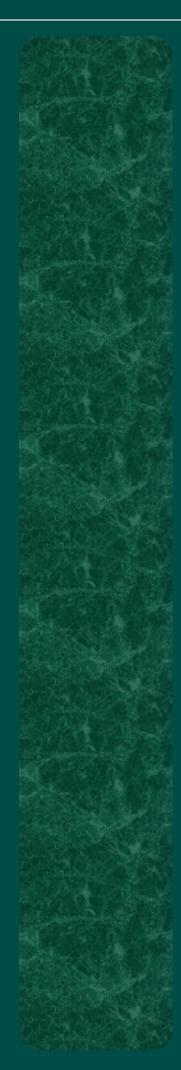
- Climate positive city in 2030
- Fossil-free city in 2040
- Greenhouse gas emissions will be limited to 0,6 tonnes CO₂e per inhabitant per 2030
- Fossil-fuels will be phased out of the city's own operations

Stockholm Grows Sustainably

Stockholm is growing, and in the near future, the city's population will exceed one million inhabitants. This growth demands a long-term plan — and Stockholm has one. The City is expanding, its infrastructure is being renovated and upgraded, and continuous efforts are made to enable people to live, work and travel seamlessly within StockholmThe city does this in a way that is sustainable for both people and the environment — for today's residents of Stockholm and for future generations. Climate and environmental sustainability have been made an integrated part of the city's governance and management processes, and for the city's operations, this has the highest priority.

Since the mid-197Os, the City of Stockholm has had a citywide environmental program defining the prioritized environmental goals and the means needed to reach them. The global sustainability development goals of Agenda 2O3O form the foundation of city policy, and the City of Stockholm aims to be a leader in implementing the 17 sustainable development goals. The Agenda's goals and sub-goals have bearing on the city's areas of responsibility which include human rights, urban development, elderly care, preschool, school and adult education, waste and recycling, as well as climate and the environment.

In the city's Environmental Program (2O24–2O3O), there are seven goals focusing on different aspects of environmental and climate action, all of which are important for a sustainable Stockholm. These goals include reducing the city's general impact on the climate, adapting to climate change, efficient use of resources, upholding functioning ecosystems and biodiversity, ensuring good air quality and reducing noise, and obtaining reduced levels of environmental toxins. The environmental program's goals are integrated into the city's management and control systems, meaning they are monitored annually as part of regular follow-up processes. The city's companies will prepare a joint report in accordance with the CSRD Directive, including the EU taxonomy, starting in 2O27.



Climate-Positive City in 2030, Fossil-Free City in 2040

The City of Stockholm has worked consistently for decades in order to reduce greenhouse gas emissions. Since 1990, the city's emissions have decreased by more than 70 percent per capita and by almost 60 percent in absolute terms. In the new Environmental Program (2024–2030), the goal is to further reduce emissions so that Stockholm becomes a climate-positive city by 2030 and a fossil-free city by 2040 — and there is a plan in place to achieve this.

Long-term goals

The city's Environmental Program sets out Stockholm's objectives on the topic of climate. Through the program, two long-term strategic goals for reduced climate impact and one goal for adaptation to a changing climate have been adopted. These are specified in the city's Climate Action Plan and Climate Adaptation Plan.

The Climate Action Plan contains the city's *climate budget* until 2040 in the form of a maximum target amount of 9 million tonnes of CO_2 equivalents during 2024–2040. This represents the portion of the global climate budget that the city intends to assume responsibility for. The plan contains measures to reduce greenhouse gas emissions in four main areas: the transport sector, the energy system, construction, and consumption from the city's own organization. The measures are set as targets for the city's committees and company boards and are followed up annually by the City Executive Board. This gives different departments responsibility, clear guidelines and targets to work towards.

Investing in Energy-Efficient Buildings

The city group's total investment budget amounts to approximately SEK 2O billion annually. The five municipal real estate companies, together with the City



Development Administration (responsible for preparing land for housing construction) and the Real Estate Department (responsible for managing the city's own properties), account for more than half of this budget. The environmental requirements the city places on new construction and renovations are therefore crucial for achieving its environmental and climate goals. To prevent energy demand and greenhouse gas emissions from increasing as the city grows, all new construction must, according to the Climate Action

Goals:

- Maximum energy usage in new buildings: 55 kWh per sqm and year
- Major renovations should reduce the purchased energy for heating, cooling, property electricity and tap hot water by at least 30%
- Reduced energy usage in city operations (10 % until 2026)
- Production of solar energy will amount to 11 OOO MWh in 2026

Plan, be designed for an energy use equivalent to 55 kWh per square meter per year.

Major renovations must significantly reduce purchased energy, and the goal is for energy use in the city's operations to decrease continuously, while the city's own production of sustainable energy increases through the installation of solar panels on municipal buildings during new construction and renovations.

In this way, energy demand for heating and cooling is expected to remain roughly unchanged over time, as new construction increases energy use to about the same extent that existing buildings are made more energy-efficient.

The goal in the city's budget is for a total of 6,000 new homes per year to be initiated until 2026, of which the city's own housing companies will account for 3,500.

Investments to Reduce CO2 Emissions from District Heating

Today, about 80% of Stockholm's buildings are connected to the district heating network, which is supplied by Stockholm Exergi AB (half of which is owned by the City of Stockholm). District heating is produced plants around the city, and in 2020, Stockholm Exergi closed its last coal-fired plant, leading to a significant reduction in CO_2 emissions.

At the Högdalen plant, combustible waste is used as an energy source. This waste still contains a certain amount of fossil-based

plastic, which causes CO₂ emissions. To enable increased sorting of fossil-based plastics, the city, through Stockholm Vatten och Avfall, is investing in a sorting facility in Högdalen. The facility will use so-called NIR-sorting technology, which reduces the



proportion of plastic used for heat production. It will also sort remaining organic waste for biogas production, allowing nutrients to be returned to agriculture as bio-fertilizer thereby contributing to resource-efficient circular systems.

To achieve net-zero emissions or go even further and achieve negative emissions (so-called climate positivity), carbon must be captured instead of released into the atmosphere. This can be done through Carbon Capture and Storage (CCS) or Bioenergy with Carbon Capture and Storage (BECCS) directly at major emission sources. Stockholm Exergi has demonstrated this in its pilot plant

Goals: **Emissions from** the transportsector will be reduced by 80 % until 2030 (base year: 2010) 100 % of city facilities will be equipped with charging stations for electric vehicles by 2030.

and now plans to invest in a full-scale facility capable of capturing 800,000 tonnes of CO_2 per year, equivalent to the greenhouse gas emissions from all cars in Stockholm.

Aside from the fossil-based plastics still present in the waste stream, fossil fuels currently represent only 2% of the fuel mix in district heating. This means that Stockholm Exergi's facility has the potential to deliver significant emission reductions by capturing CO₂ from renewable energy sources.

Investments in Public Transport and Cycling

In the transport sector, where the city has less direct control, emissions have decreased by about 15% since 1990 despite population growth. Public transport, cycling, and electric vehicles are all prioritized modes of transportation in Stockholm. The recent expansion of bike lanes and other cycling infrastructure has led to a sharp increase in bicycle commuting.

The city must continue to enable sustainable and fossil-free travel. Expanding public transport and cycling infrastructure is therefore crucial. The city, together with the state and the region have agreed to co-fund investments in public transport.

For Stockholm, this includes co-financing three subway lines:

The blue line will be extended to Barkarby with two new stations (Barkarbystaden and Barkarby) and further south from Kungsträdgården to Södermalm, Söderort, and Nacka — adding six new stations: Sofia, Hammarby Canal, Sickla, Järla, Nacka, and Slakthusområdet. A new line will also be built from Arenastaden to Odenplan with stations at Arenastaden, Södra Hagalund, and Hagastaden.

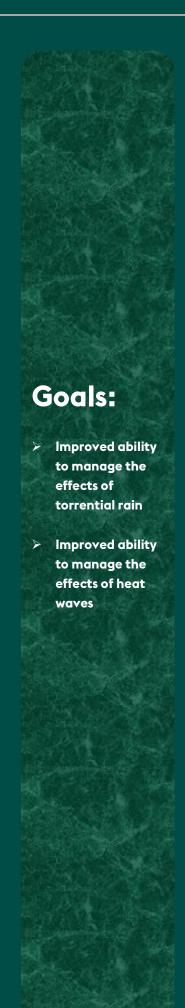
The agreements also include investments in cycling infrastructure and an expansion of housing — with over 100,000 new homes to be built.

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A City Adapted to Climate Change

Buildings, infrastructure, and technical systems must be adapted to withstand both today's extreme weather events and the climate changes to come. Environmental protection measures also help



protect people's lives, health, and property as society adapts to the consequences of a changing climate.

Long-Term Goals

In the Climate Action Plan, the city defines its level of ambition for climate adaptation. Based on future climate scenarios and risk/vulnerability analyses for Stockholm, the city has chosen to focus its adaptation work primarily on extreme rainfall events and heatwaves.

Stockholm Vatten och Avfall AB, together with the city's Environmental Department, has developed a model showing potential flood risks in the city under future climate conditions. This provides an overview of vulnerabilities during extreme rainfall events and indicates where flood risks may occur.

The city's *Stormwater Strategy* addresses how Stockholm should be planned and designed to manage heavy rainfall

Investments for Climate-Adaptation

The city's single largest investment is the reconstruction of **Slussen** (the sluice), which is a key climate adaptation project. The new design increases the city's capacity to discharge water from Lake Mälaren into the Baltic Sea, reducing flood risks across the Mälaren Valley and protecting critical infrastructure.



The new Slussen is designed to handle a global sea level rise of 1 meter — corresponding to about O.5 meters in Stockholm once land uplift is considered. This is the level that the Swedish Meteorological and Hydrological Institute (SMHI) deems likely during Slussen's lifetime. This protects Mälaren's role as a water source for around two million people by reducing the risk of saltwater intrusion from the Baltic Sea.

Improved Water Quality

Water quality in Stockholm's waterways has improved significantly since the 197Os. Centralized and more efficient wastewater treatment has been key to this improvement. However, the city's water bodies are still affected by being located in a metropolitan area. Eutrophication, environmental toxins, microplastics, and climate change remain pressing issues.

Goals:

- bodies that comply with environmental quality standards for ecological status: 100% by 2027
- Share of water bodies that comply with environmental quality standards for chemical status: 100% by 2027

Long-Term Goals

Stockholm's lakes, streams, and coastal waters are heavily impacted by human activity. The city is now undertaking extensive work to improve water quality in all 21 of its water bodies. By 2O27, these lakes, streams, and coastal waters must achieve *good ecological and chemical status* in line with the EU Water Framework Directive.

Investments for Improved Water Quality

Stockholm Vatten och Avfall AB is currently building a new wastewater treatment plant in **Henriksdal** — one of the city's largest single investments. The project includes the installation of state-of-the-art treatment technology and a new sewage tunnel from Bromma to Henriksdal.

Using efficient membrane technology, the Henriksdal plant will reduce nitrogen emissions by 40% and phosphorus emissions by about 35% from already low levels, while also



removing microplastics before water is released into the Baltic Sea. The technology will enable the city to meet future environmental requirements and provides a strong foundation for possible future treatment of pharmaceutical residues.

During heavy rainfall, combined sewer overflows — discharges of untreated wastewater into Lake Mälaren — can occur. These discharges contain high levels of phosphorus and nitrogen. The new sewage tunnel and expanded Henriksdal plant will substantially reduce such overflows, as several discharge points will be eliminated. Stockholm Vatten's calculations show that the total overflow volume could be nearly halved.

Social Sustainability in Urban Development – Focus Skärholmen

Social sustainability is a key part of sustainable development. It concerns not only planning for services such as schools and social care, but also how we plan the physical environment — buildings, streets, and squares. Proximity to workplaces, services, public transport, culture, and green spaces improves quality of life and enhances safety and well-being

Long-Term Goals

The overarching goal for social sustainability in Stockholm's urban development is to create a vibrant city where everyone can live, to



physically connect different parts of the city, and to achieve socially mixed neighborhoods with varied housing and tenure forms.

To capture the social dimension of sustainability in urban development, the city uses a *social value creation analysis model*. This model facilitates the integration of social sustainability issues into all urban development projects and is based on the city's comprehensive development plan.

The model makes integration of social values more concrete and systematic, ensuring that every development project includes an analysis of which social values can be added or strengthened in the area, a specification of how the project can contribute to these values, and concrete actions to create social value on site.

Investments for Social Sustainability – Focus Skärholmen

The urban development project **Focus Skärholmen** is a flagship project for social sustainability. The goal is to build over 4,000 new homes, which also requires more preschools, schools, local services, meeting places, and investments in parks and green areas.

The work emphasizes cooperation with residents to address areas perceived as unsafe, create lively centers, connect neighborhoods, and increase access to green areas.

There is also an ambition to reduce youth unemployment in the area, for example, by prioritizing developers who can offer employment or summer jobs to young adults. The project highlights the local perspective and integrates the aspects of urban planning that are important for a socially sustainable city

New Legislation, National and International Collaboration

The city's ten largest companies currently prepare sustainability reports in accordance with the Global Reporting Initiative (GRI) international standards. From 2O27, the city's companies will be covered by the new, broader Corporate Sustainability Reporting Directive (CSRD), and a consolidated group-wide report — including assessment of alignment with the EU Taxonomy — will be produced.

European Climate Contract

In October 2023, Stockholm became the first Swedish city to receive a so-called *Mission Label*, confirming that the city's plan for climate positivity has been approved by the European Commission.

Cities occupy only 3% of the Earth's land area but account for more than 70% of greenhouse gas emissions. As cities grow rapidly and



heavily influence energy supply, traffic, and urban planning, their role in achieving sustainability goals is crucial.

By around 2050, 85% of the EU population will live in cities. Therefore, Stockholm has been selected by the EU as one of **100 cities** to participate in the initiative to become *climate neutral by 2030*. Out of 362 European applicants, Stockholm is among the chosen few.

As part of this initiative, the city has signed a Climate Contract with the European Commission, providing an important framework for implementing its Climate Action Plan. Achieving a climate-positive Stockholm by 2030 and a fossil-free city by 2040 requires new partnerships, focus, and innovation — including research and digitalization — and the Climate Contract is a key instrument for this. It also reinforces innovation and a broad sustainability perspective aligned with the UN's 17 Sustainable Development Goals in Agenda 2030.

The EU-level Climate Contract for climate neutrality by 2030 is the next step after the city signed a similar contract at the national level in late 2020.

National Climate Contract

Since 2019, the city has participated in the Viable Cities initiative "Climate Neutral Cities 2030." Viable Cities is a strategic innovation program supported by the Swedish Innovation Agency (Vinnova), the Swedish Energy Agency, and the research council Formas.

The program focuses on transforming cities toward climate neutrality and sustainability. A central tool in this work is the **Climate Contract 2030**, which concretely sets out what cities and government agencies commit to and implement to accelerate the climate transition.

The Climate Contract 2030 represents a joint effort by Swedish cities, national authorities, and Viable Cities to achieve the rapid transition needed to keep global warming below 1.5°C. It is an agreement under which all parties commit to contributing actively to speeding up the transition. Every December, on *European Viable Cities Day*, participating cities sign an updated version of the Climate Contract 2030.

The City of Stockholm – A Sustainable Investment

In summary, the city is investing to meet the needs of a growing population — within the framework of an ambitious environmental



program that is well integrated into its management system and contributes to implementing Agenda 2030.

In this way, the city ensures that all investments — whether in housing, public transport, climate adaptation, or waste management — are made in line with a climate-smart and sustainable Stockholm, based on established environmental and climate goals and action plans.

The Climate Action Plan includes concrete measures that reduce emissions at a pace ensuring the city will be *climate positive by 2030* and *fossil-free by 2040*.

Investors can therefore feel confident that an investment in the City of Stockholm is a **sustainable investment**, contributing directly to achieving the city's ambitious environmental and climate goals.

