

# Climate-smart Malmö

Making sustainability reality



Malmö stad

# Climate-smart Malmö

Malmö aims to be a world-leading climate city, and we're making good progress. Our efforts are broad-based: in transportation, energy, and city planning, and also consumption, education, and lifestyles. But it's not enough to cut the city's emissions. We must also adapt society to climate changes like extreme precipitation and drought.

## SOME CLIMATE EXAMPLES FROM MALMÖ

### City planning

Malmö's Western Harbour and Augustenborg are internationally cited examples of how to work with sustainable urban development in a climate-smart way. Both areas feature leading applications of renewable energy (Bo01 is served by 100% local, renewable energy), traffic solutions, greenery, and open storm-water system. In close cooperation with developers, the next generation of sustainable building is being realised.

### The Covenant of Mayors

Malmö has joined the European mayors' charter, The Covenant of Mayors, on reducing causes of climate change. In supporting the initiative, Malmö undertakes to go beyond the EU's energy target of reducing CO<sub>2</sub> emissions by 20% by 2020, as well as bringing forward an action plan for sustainable energy, arranging energy days, participating in the annual mayors' conference, and spreading the message of the covenant.

### Local climate fund

Malmö is planning a local climate fund. It entails compensating greenhouse gas emissions from municipal activities through increased investments both in renewable energy, for example solar cells and wind generation, and in technologies that increase energy efficiency. The target is for Malmö to become Sweden's first climate-neutral city by 2020 with respect to municipal sector activities.

### Cleantech City

Malmö is investing to become a city with a unique profile in green technologies, where the economic, social and ecological sustainability dimensions work together.

### Climate adaptation

The effects of climate changes are already here. Malmö is testing various "green tools", for example open storm-water system, green façades and green roofs, as ways for cities to adapt to climate change. The idea is to highlight demonstration sites where solutions are tested and shown.



# Climate challenge: Transportation

Malmö residents increasingly choose walking, cycling or public transport instead of the car. Between 2003 and 2008 the car's share of overall travel sank by 11 percent, and the "ridiculously short car trips" are becoming fewer too. Malmö works broadly with diverse measures to improve the city's traffic environment.

## SOME CLIMATE EXAMPLES FROM MALMÖ

### Public transport

In Malmö, the public transport traveller is prioritised. City buses communicate electronically with traffic lights to get green lights more rapidly than cars. Special lanes enable buses to avoid being crowded by cars, and electronic boards at bus stops display waiting times in real-time.

The Öresund Train ties Malmö and Copenhagen together with three or more connections every hour over the Öresund Bridge. With the opening of the Citytunnel in 2010, you can even take the train directly into central Malmö, with stops at Malmö Central, Triangeln, and Hyllie.

### Sweden's best bicycling city

In Malmö it's easy to cycle. We have more than 410 km of cycle paths (more than Copenhagen), a kind climate, and only one hill! One-fourth of the daily trips in Malmö are made by bicycle. Malmö City is continually extending the cycle

path network, testing new solutions to make it easier, safer, and more fun to cycle, and serving cyclists with air pumps at several locations in the city. Radar detectors at 30-some intersections can sense approaching cyclists and automatically provide a green light.

### Influencing transportation choices

The City of Malmö's target is that more people will choose to walk, cycle or take public transport, instead of taking the car. With the help of marketing, information, and advice, the City works with companies, schools, and all residents generally. The campaigns *No ridiculous car trips* and *The friendly way to school* are examples of projects that aim to influence transportation habits.

### Eco-driving

All municipal employees in Malmö are offered training in eco-driving, a method to reduce fuel consumption, saving the climate and the wallet. The majority of those completing the education have reduced petrol usage by some 15%. The City of Malmö has even spread the method of Heavy Eco-driving to some of the city's large lorry companies. In Malmö, several driving schools provide training in eco-driving.





*“Transportation and buildings account for the largest share of climate-changing impact. This means that we must mitigate climate change largely at the local level, that we must work for the sustainable city. Municipalities must function as role-models on the climate issue.”*

*Ilmar Reepalu, Mayor of Malmö.*



# Climate challenge: Energy

We use huge amounts of energy to warm and cool our buildings. It's one of the largest climate challenges: how will we solve that equation? One answer is to use less energy, another is to progressively replace fossil fuels, like oil, with renewable energy.

## SOME CLIMATE EXAMPLES FROM MALMÖ

### Solar City Malmö

Malmö is Sweden's foremost municipality when it comes to solar energy, with installations at schools, retirement homes, outdoor pools, museums and industrial buildings. Soon we'll even have a unique solar-driven Stirling engine in Sege Park. Here already is Sweden's largest solar cell installation. The spectacular solar wings consist of 1 250 m<sup>2</sup> of solar cells, with a maximum effect of 166 kW. The old hospital area is being planned to become an ecologically sustainable city area.

### Wind energy

On the water outside Malmö stands the world's third-largest, sea-based wind energy park, Lillgrund. It is Sweden's largest investment in wind energy to date. The park consists of 48 wind generators producing 0.33 TWh of electricity per year. That equals electricity for 60 000 homes.

A new focus within Malmö is urban wind energy – smaller wind generators that can be placed in the built environment. There are also plans for two large wind generators in the harbour area. Wind energy is on the way to becoming an important economic sector in Malmö. Here are many companies working with wind energy.

### Biogas

Malmö City and energy provider E.ON are cooperating on a successive transition from fossil natural gas to renewable biogas, and in the longer run to hydrogen. Biogas is already produced from e.g. food wastes and used as fuel and for heating. E.ON has plans for a significantly larger biogas plant of 300 GWh (gigawatt hours) in Malmö's harbour. The plant, one of the world's largest, has been awarded a national climate investment grant.

### Increased energy efficiency

The City of Malmö has reduced energy consumption in municipal properties by circa 20% since 2001, foremost by investing in demand-controlled technologies. For example, schools and pre-schools have been sites for successful tests of demand-controlled technologies. The targets are set high for continued increases in energy efficiency.



# Climate challenge: Consumption

Our lifestyles impact the climate – above all our choices in travel and housing, but also the food we eat. The things we buy at the grocery store are therefore also climate choices. Choosing food that is locally produced and ecological, and consuming less resource-intensive junkfood and meat, all makes a large difference. So does taking care of what we buy, instead of simply tossing clothes and other items in order to replace them with the newest models.

## SOME CLIMATE EXAMPLES FROM MALMÖ

### Ecological food at school

Around 50% of Malmö's school food is ecological, with the target of 100% by 2012. Malmö's school restaurants use less semi-processed food, more climate-smart root vegetables, and more vegetable protein. The pilot school Djupadal already serves nearly 100% ecological food.

### Climate-friendly tourism

Tourism can certainly be combined with a good climate conscience. The City of Malmö is investing in education for sustainability for personnel in the tourism sector, and in climate-smart travel tips for Malmö and the region.

### Grön Stad / Green City

The City of Malmö has for more than 10 years published its own newspaper on sustainable development, Grön Stad ("Green City"). From the start it has spread sensible messages about how to live environmentally friendly, with an increased focus on climate change in recent years.

### Sustainable events

A large conference, festival or sport tournament is often by definition unsustainable and has a large climate impact. The transportation is a hard nut to crack, along with the energy dimension. Can one organise a climate-neutral event? Malmö City is developing a checklist for how to make events more sustainable.

### The ReKo project

The ReKo project aims to help young persons become even more conscious consumers who shop sustainably. (ReKo stands for Reklam och Konsumtion, "advertising and consumption", while the word reko itself means "decent".) The project is catered to high school students.







# Can you see the climate connection?

Good examples from Malmö

## Fair trade / fair climate

Malmö is Sweden's first Fairtrade City. Fairly produced goods guarantee a reinvestment in the local community. It is climate smart, because local development checks the flight to large cities and promotes flourishing local agriculture and forestry.

## Pre-school as role-model

The pilot pre-school Sadelmakaren in Malmö's Annestad consumes minimal energy. It's built with the latest energy solutions, with extra-dense walls, floors and roofs, and without affecting ventilation. Sensors control the lights and the building consumes a record-low 70 kWh/m<sup>2</sup>.

## The well planned Western Harbour

The Western Harbour, with its 100% locally produced renewable energy, compact built environment, green roofs and open storm-water system, is an international inspiration for climate-smart city planning.

## Sensors speed things up

A small gadget on some of Malmö's traffic lights detects approaching bicycles and buses and controls the traffic flow to the advantage of the climate-friendly alternatives.

## Moon calling Malmö

A science fiction-like solar-powered Stirling engine will be assembled in Malmö. It will soon land at the city's new climate centre in Sege Park.



KLIMAT







### **Transport and exercise**

40 % of Malmö residents are climate heroes every day when they choose the bicycle as their mode of transport. Their hearts, waists and wallets thank them too.



### **Sustainable horsepower**

Lawnmowers are exchanged for whinnies in Bulltoftaparken, where a horse presently draws a specially developed reel-mower. A lot of diesel is saved, and the horse is popular among the park's visitors.



### **How climate works**

Acting requires knowing. The educational concept Klimat-X, now being used by Malmö Museums, gives young school-goers a tangible understanding of how their choices impact the climate.



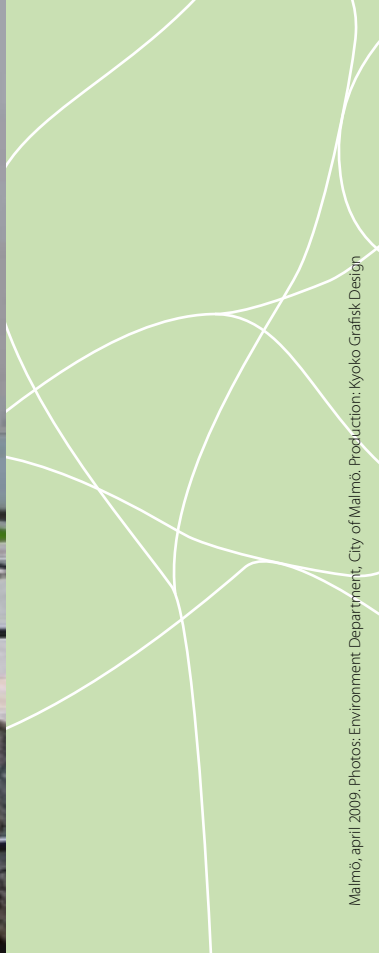
### **Costly drops**

Buying bottled water is a cost for the climate too. Malmö City employees are encouraged to skip the bottled water in favour of the municipality's own prize-winning tap water. It's a climate-smart and economical choice – tap water costs just 0.01 SEK per litre.



**MALMÖ**





## Climate Malmö

In 2009 Malmö City is giving special focus to climate change ahead of December's COP15 climate summit in Copenhagen. Klimat Malmö acts as an umbrella for a range of climate activities conducted by various actors in Malmö – the municipality, companies, and civil society.

*Read more at [www.malmo.se/sustainablecity](http://www.malmo.se/sustainablecity)*

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