



Helsinki's Climate Roadmap to carbon neutral city by 2050



HELSINKI'S CLIMATE ROADMAP

Towards a carbon neutral and climate resilient city

just 15 minutes.

... kinds of transportation services. Few want to have their own car. The majority of vehicles run on electricity. Money for the promotion of sustainable modes of transportation has been gathered from transportation pricing since the 2020s.

... need to prevent slippiness have been taken into consideration when planning transportation and in the maintenance of roads. The City facilitates emissions-free transportation with good land use planning, by supporting the use of electric cars, and by promoting bicycle and pedestrian traffic and public transport.

ACT NOW

THE CITY IS EXPANDING THE RAIL TRAFFIC NETWORK AND CYCLE PATHS. Transportation causes a fifth of all emissions. Congestion charges and parking pricing in the centre encourage the use of public transport.

JUST A HALF-HOUR brisk walk or cycle to work every day would improve your well-being.

HAVE YOU CALCULATED? Find out whether your housing association could hire out a car for common use amongst residents. how much using a car costs in comparison with public transport?

DOES YOUR WORKPLACE SUPPORT SUSTAINABLE MEANS OF TRANSPORT?

- bicycle parking and showering facilities
- employer-sponsored travel tickets
- emissions limits requirements on company cars
- car parking restrictions

FIRST STEPS

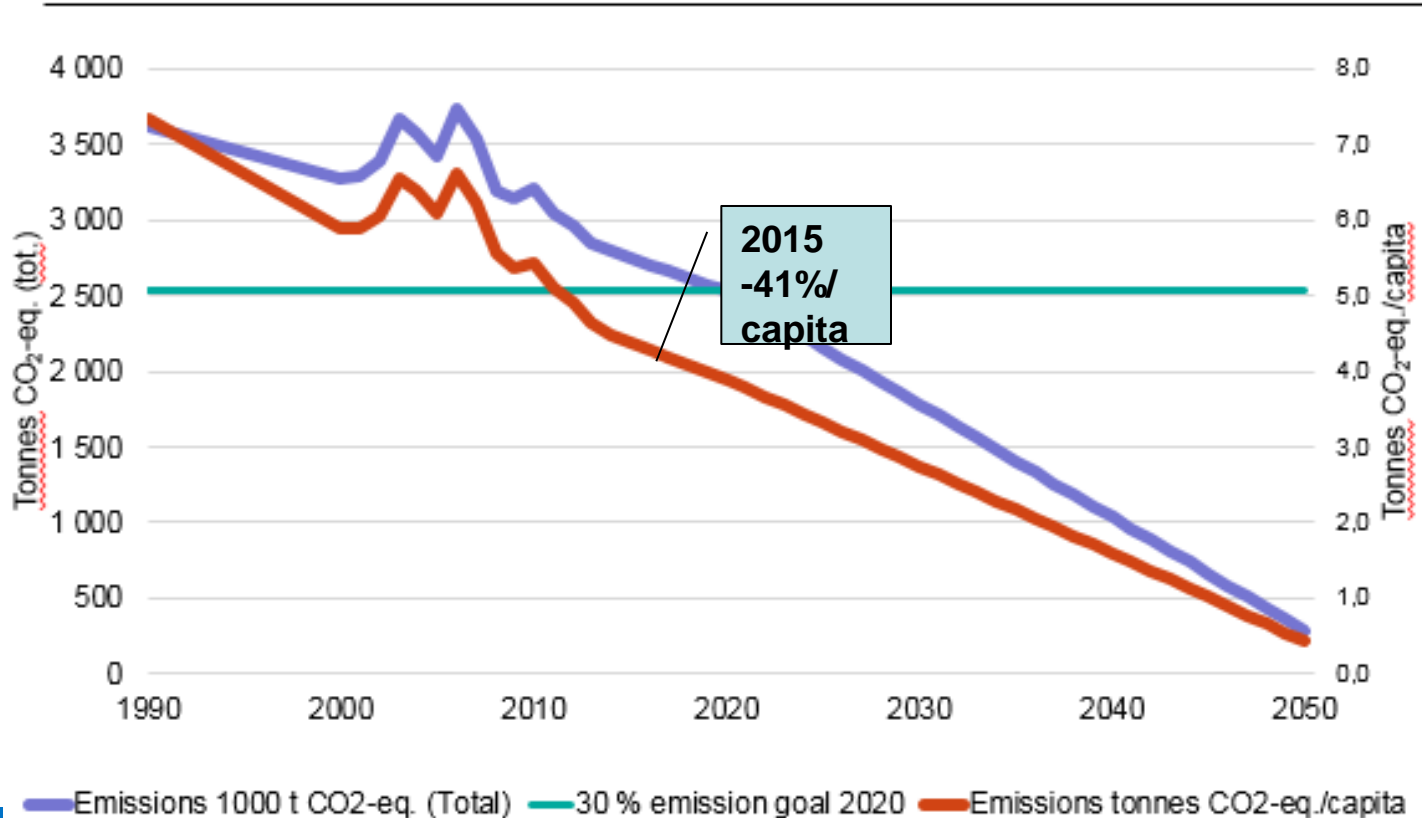
- Choose walking or cycling when going to a hobby.
- Leave your car at the park and ride car park and enjoy the remainder of the journey by train or metro.
- If your whole commute is too far to pedal, combine the last parts of cycling and public transport.
- Promote remote working opportunities and sustainable transportation at your workplace.
- Give the City feedback if bicycle paths have not been cleared well, or if there are breaks in a cycle route.
- Reduce air travel, choose airlines that invest in climate work and compensate for your emissions.

Petteri Huuska
Environmental planner
City of Helsinki



- **GHG total emissions -30 % 1990-2020**
- **Increase energy efficiency by 20 %/capita 2005-2020**
- **Increase renewable energy in production to 20% by 2020**
- **Carbon neutral energy production and City by 2050**

Emissions and scenarios





City boulevards (Master plan 2050)



Tram bridge to Kruunuvuori (2020's)



Image:WSP Finland Oy/ Helsinki city planning department

Jokeri Tram (2020's)



Image:HRT

West metro line (2017)



Airport train (2015)



Photo:www.flickr.com/photos/lansimetro



Image:www.vr.fi



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Towards Sustainable Construction

Case Eco-Viikki

Case Honkasuo



Photo:Helsinki City planning department



Image:Helsinki City planning department/karpainen Architects



10.2.2015 Pekka Sauri
Photo:Helsinki City planning department

Case Smart Kalasatama

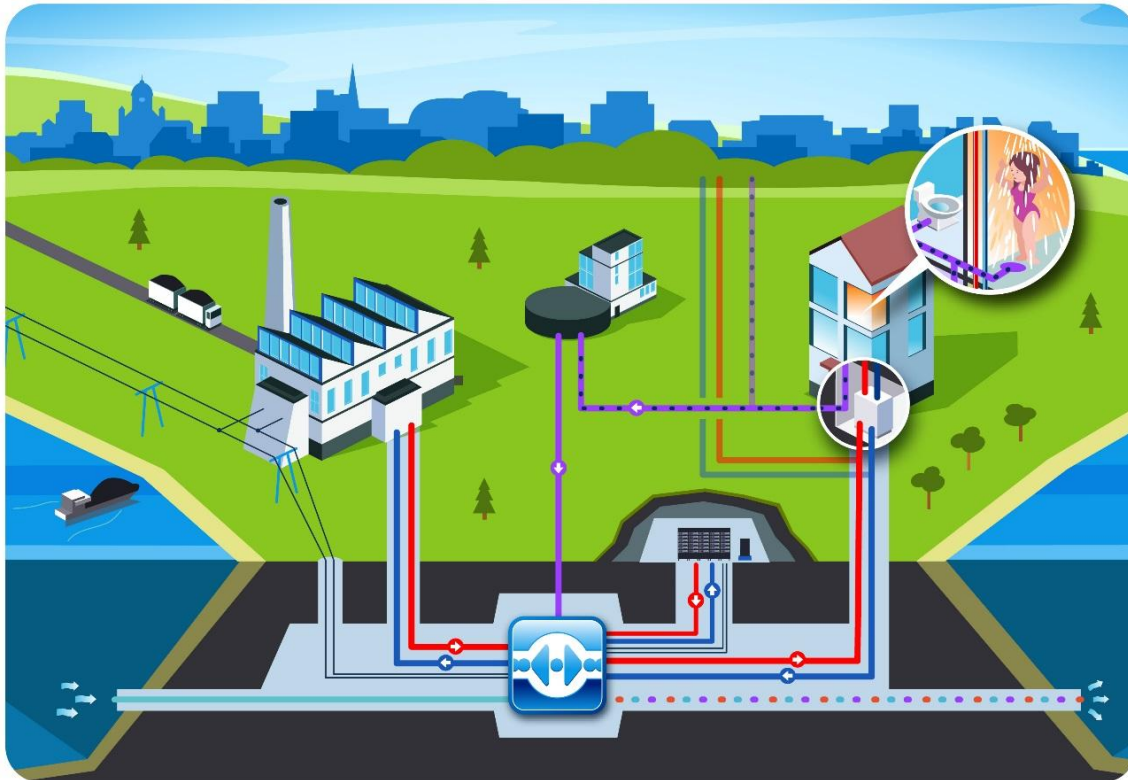


Image: Helsinki City planning department



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Towards carbon-neutral energy production





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Towards carbon-neutral energy production





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Towards carbon-neutral energy production

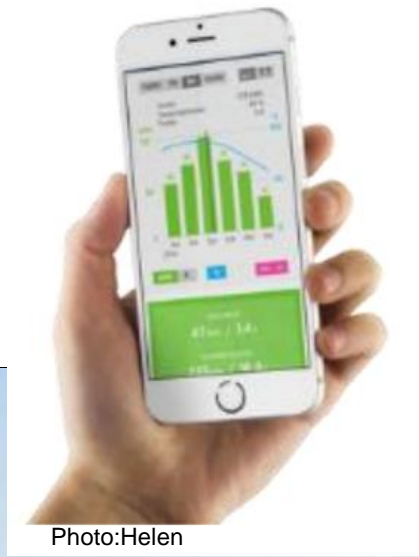


Photo:Helen



Photo:Helen

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Image:Helen/Valmet



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Towards carbon-neutral energy production

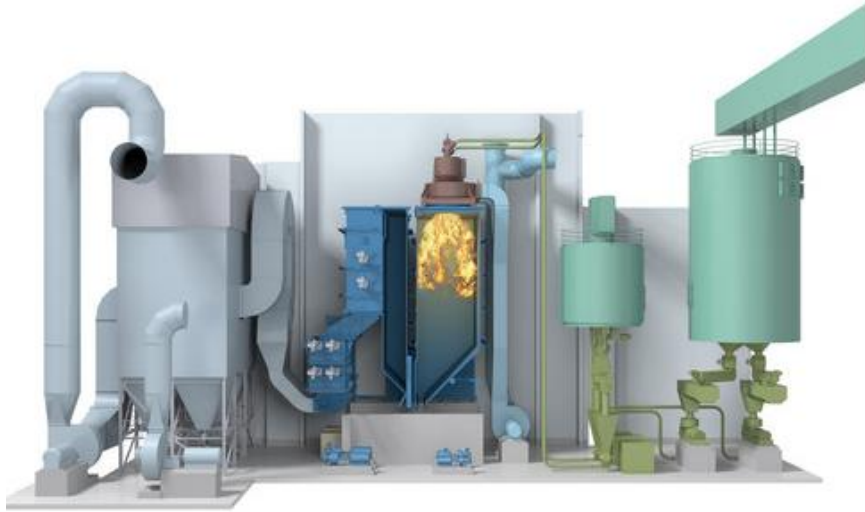


Image:Helen



Photo:Helen



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Energy renaissance of suburbs



Image: Seppo Laakso/ City of Helsinki mediabank



Retrofitting potentials

Helsingin kaupunki
Ympäristökeskus

Helsingin kaupungin ympäristökeskuksen julkaisuja 7/2014

Helsingin 30 % päästövähennys selvitys

Kasvihuonekaasupäästöjen kehitys ja vähentämisen kustannustehokkaat toimenpiteet

Erkka Ryyänen, Laura Oja ja Iivo Vehviläinen (Gala Consulting Oy)
Olli-Pekka Pasilainen, Rina Antikainen ja Pasi Tainio (Suomen ympäristökeskus)

SIEMENS

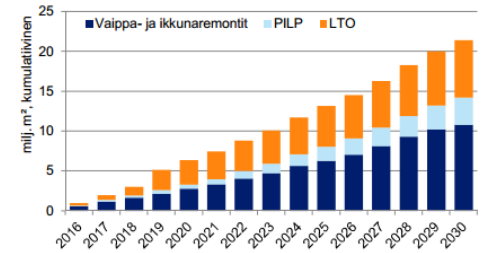
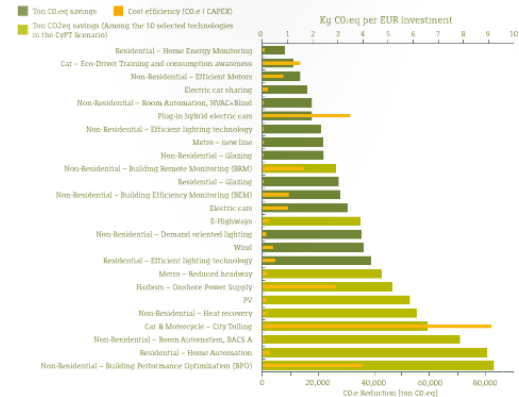
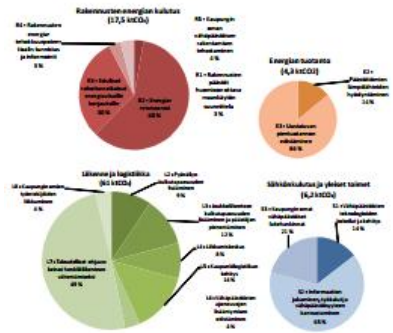
**Helsinki's 2030
Climate Technologies**

City Performance Tool - March 2016

Global Center of Competence Cities

Helsingin kaupunki 2015

Hajautetun energiatuotannon edistämisen selvittäminen sekä kaupungin kiinteistöjen ja kaupunkirakenteen energiatehokkuuden tavoitteiden ja seurannan laatiminen



LTO = Lämmön talteenotto
PILP = Poistoilmalämpöpumppu
HAJAUTETUN TUOTANNON POTENTIAALI S2X285819
LOPPURAPORTTI 22.9.2015



Photo: Sonja-Maria Ignatius

Climate steering group



Photo: Sonja-Maria Ignatius

Climate network of experts



Climate info (inhabitants and SME's)

Carbon-neutral Harakka Energy advising (Schoolchildren and inhabitants)



Photo: Anu Norros

Energy advising in Kontula suburb (housing associations)



Photo: City of Helsinki



foto: Viliina Evokari

Climate Street
Platform for Smart
solutions





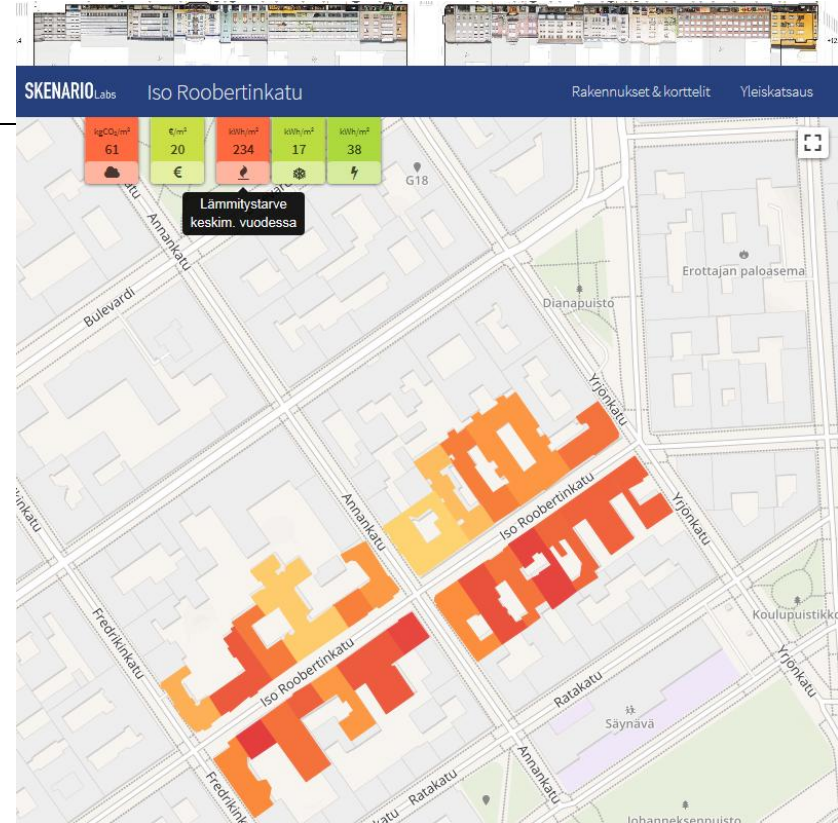
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Heat loss and solar potential

kartta.hsy.fi

All energy data on map

<http://ilmastokatu.fi/helsingin-ilmastokatu/>





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From smart pilots to common practises

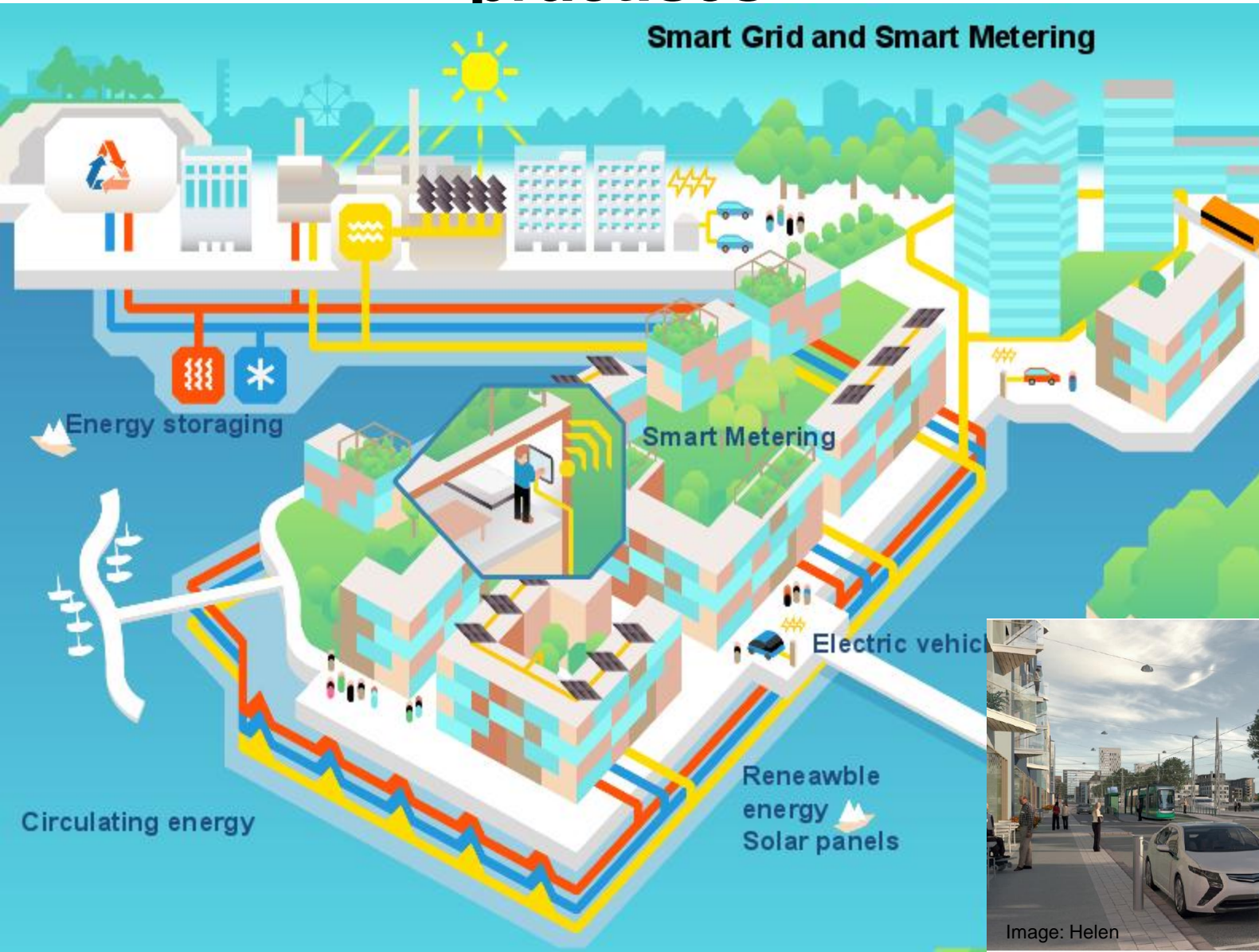
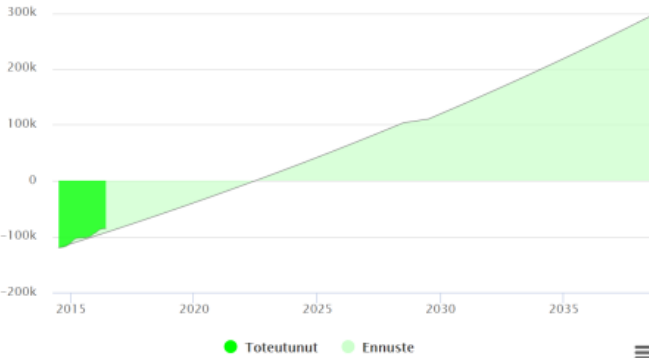


Image: Helen



Toteutuneet säästöt vs. tavoite



Kokonaissäästö

Laitteiston SCOP

34 172 €

3.66

Image: Enermix Oy

Helsinki's 2030 Climate Technologies | City Performance Tool - March 2016

Helsinki's 2030 Climate Technologies | City Performance Tool - March 2016



Box 1 continued

The Gothenburg Green City Bond Programme

Green City Bonds are traditional municipal bonds issued by cities in order to generate capital for investments. Their key difference is that they are labelled as green with a commitment to deliver environmental benefits within the maturity period of the bond.

In 2013, the city of Gothenburg raised its first green city bond at a volume of 100M€. Within only a couple of days, the bond was oversubscribed due to the high credit rating of the municipality. Rather than the city selling capital markets where the money would be spent, it launched an innovative competition model for organisations to select green projects that they wanted to fund in diverse sectors such as renewable energy, waste management and mobility. This was developed in cooperation with the municipality itself. Each organisation had to be accompanied with an estimate of greenhouse gas emissions savings that the project would deliver. As soon as all submissions were received a selection committee composed of the Environment and Energy departments, as well as the City Council, selected the most impactful projects on a cost to savings ratio. The winners were a waste purification plant, a bicycle fleet and the replacement of municipal cars with e-cars.



Water plant and purification plant



Bicycle fleet and electric bicycle



Electric car fleet

Gothenburg 2013 Green City Bond Programme





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Financing energy renovation



Image: Tengbom Eriksson Arkkitehdit Oy/City of Helsinki mediabank



Photo: Seppo Laakso City of Helsinki mediabank



Photo: Pia Rantanen/ City of Helsinki mediabank



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Thank you!

More info at www.stadinilmasto.fi/en/
or petteri.huuska@hel.fi.

