



ÖREBRO

# Green Bond

INVESTOR LETTER December 31, 2016

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In 2016, the Municipality of Örebro issued its second Green Bond, worth 500 million kronor. Green bonds worth a total of 1,250 million kronor have now been issued within the framework of the municipal MTN programme to fund climate-smart, environmentally sustainable investments. The first Green Bond was issued by the Municipality of Örebro in October 2014 (750 million kronor), and it was the second municipality in Sweden to do so. Ten per cent of the municipality's total debt is in the form of green bonds. Of the green bonds that have been issued, 1,060 million kronor have been allocated. The remaining 190 million kronor will be allocated during 2017.

The green investment projects will be implemented to achieve the goals set out in the municipal environmental programme and associated policy and regulatory documents relating to climate, construction, traffic, nature, non-toxic environment, waste and water.

The Municipality of Örebro received the Best Environmental Municipality in Sweden award in 2015, in the face of strong competition from all the country's 290 municipalities. Our work on climate and energy and our green finances, including a fossil-free investment policy and green bonds, were highlighted in particular. Prior to this, the Municipality of Örebro was for several years among the top 10 municipalities in the country.



Investments that can be funded via a green bond are presented in our framework, which is based on the Green Bond Principles. The framework has been audited by CICERO, the Norwegian Centre for International Climate and Environmental Research. Our projects aim to:

- limit the climate impact of the municipality by promoting renewable energy sources and energy efficiency enhancement measures
- climate change adaptation measures<sup>1</sup>
- focus, albeit to a lesser extent (maximum 20%), on projects related to a sustainable environment instead of direct, climate-related measures.

## **The Örebro Municipal Group will be climate neutral by 2030 - financing operations will help to achieve this**

In June 2016, the Municipality of Örebro adopted a new climate strategy with the aim of making the Municipal Group climate neutral by 2030. The climate strategy covers eight initiatives for the municipality as an organisation, one of which is green finance. The other areas are more efficient energy use, travel, transport, smarter food, procurement, products and sustainable events.

Within financing, it was decided that two main areas will contribute to mitigating climate impact generated by the Municipality of Örebro: asset management and loan management. The climate load resulting from municipal asset management must be lower than comparable indices and must be reduced each year with the aim of becoming climate neutral by 2030. External loan debt must be packaged in green bonds where possible.

To achieve climate neutrality by 2030, it is proposed that committees and companies proceed as follows:

- Develop the follow-up of investment projects funded through green bonds to ensure climate impact is also included.
- Establish a routine for evaluating whether investment projects run by the Municipal Group fall within the framework of green bonds and, where possible, issue green bonds.

### **The financing function is implementing operational development measures to help achieve climate neutrality by 2030**

The aims set out in the climate strategy have led to the further development of a process for evaluating the green status of projects. As part of this process, a Climate Change and Environment Committee was set up in 2016 by the climate and the environment managers at the different companies<sup>1</sup>. The municipal CFO and a sustainability strategist are also members of the Committee.

The Climate Change and Environment Committee has developed the process - from project via loans to green bonds. Since 2016, potential projects undergo a standardised, e-based application process with systematic, digital documentation of relevant data. The following functions and groups are included in the process in order to identify, evaluate, decide and follow up the green status of investment projects: a) From the Municipal Authority: Municipal CFO and a sustainability strategist; b) From the Municipal Group Örebro Rådhus AB: CFOs for the different companies<sup>1</sup>, the Climate Change and Environment Committee and the Finance Committee<sup>2</sup>. The groups meet each quarter.

The Municipality of Örebro also has ambitions to include climate impact in the follow-up of green investment projects and this has led, among other things, to us becoming part of a collaborative undertaking between a group of public sector green bond issuing bodies in the Nordic region<sup>3</sup>, which in 2016 entered into discussions regarding a joint approach to reporting plans. Collaboration is founded on the conviction that a joint Nordic position could be of benefit not only to other issuers of green bonds but also to investors as a whole. As issuers, we also recognise the value of sharing experience and expertise.

The purpose of this work is to develop a transparent, harmonised and relevant approach to reporting the impact of green bonds. The aim of the group is to develop guidelines for Nordic issuers of green bonds. The guidelines are due to be published during the second half of 2017. The results of this work could affect how the Municipality of Örebro reports back in the future.

<sup>1</sup> Housing company Örebrostäder AB (ÖBO), property companies Futurum Fastigheter i Örebro AB (Futurum) and Örebroporten Fastigheter AB (Örebroporten), as well as the development company KumBro Utveckling (KumBro), which works with sustainability issues within energy and technology provision.

<sup>2</sup> The Finance Committee comprises the Municipal CEO, the Municipal CFO and the CEOs of ÖBO, Futurum, Örebroporten and KumBro.

<sup>3</sup> Participants (FI = Finland, NO = Norway, SE = Sweden): City of Gothenburg (SE), Kommunalbanken (NO), Kommuninvest (SE), Municipality Finance (FI), Municipality of Borås (SE), Municipality of Norrköping (SE), Municipality of Örebro (SE), Stockholm County Council (SE), Swedish Export Credit Corporation (SE).

## Approved framework projects, December 31, 2016

Project	Total investment	Disbursed 2014	Disbursed 2015	Disbursed 2016	Disbursed total
<b>Renewable energy</b>					
Wind turbines	450.0	100.0	149.0	58.4	307.4
Solar park	16.0				0.0
<b>Energy-efficient buildings</b>					
<b>New construction</b>					
Pärllöken - A passive building with apartments for rent	51.0	51.0			51.0
Vintrosa Skola - A school that has been certified as 'Environmental Building Silver'	70.0		70.0	4.0	74.0
Örebro University School of Business - Nova Building	300.0			300.0	300.0
Marieberg Preschool	26.5			26.5	26.5
Student accommodation, Grankottvägen	70.0				0.0
Bettorp Preschool	70.0				0.0
'My Green Block in Vivalla' - Multi-family dwellings	35.0				0.0
Brunnskolan - Primary/secondary school	30.0				0.0
<b>Renovation</b>					
Maskinisten - Redevelopment of student apartments	56.0	49.0	7.0		56.0
Energy efficiency enhancement initiatives in Varberga	266.0		75.0*	100.0	175.0
Hovstavägen, phase 1	45.0		45.0*		45.0
<b>General environmental initiatives</b>					
Nitrogen removal at the sewage treatment works	18.0			25.0	25.0
<b>Total</b>	<b>1 503.5</b>	<b>200.0</b>	<b>346.0</b>	<b>513.9</b>	<b>1 059.9</b>

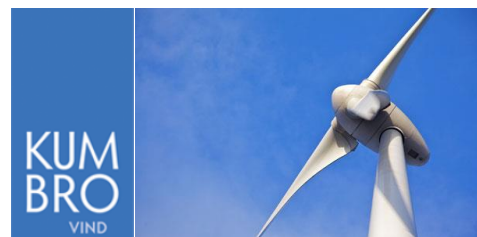
\* Reallocation of funding in conjunction with the annual follow-up of the conformance status between the green projects and the framework.

## Projects as at December 31, 2016

### Renewable energy

#### Self-sufficient in renewable power.

- By 2020, the Municipality of Örebro will be self-sufficient through municipally owned renewable energy generation.
- KumBro Vind, a company jointly owned with the Municipality of Kumla, will by 2020 own wind turbines that produce 100-120 GWh/year, equivalent to the power requirements for 20,000 households. This means that 15-20 wind turbines will be built and become operational by 2020, an investment worth around 565 million kronor (The Municipality of Örebro's share is 450 million kronor). Production of 100 GWh will result in a climate load reduction of 40,000 tonnes of CO<sub>2</sub>/year, equivalent to the annual climate load generated by 20,000 standard cars.
- During 2016, annual production was 47.6 GWh.



### Energy-efficient buildings

#### New construction

- Örebro University School of Business: Nova Building.
- Offices, teaching premises, hall (total 9,500 sq. m.).
- Energy use was 37 kWh/year per sq. m., which is almost half the figure laid down in the current statutory stipulations.
- Solar cells: 42 kW installed in 2016.
- Built according to the criteria laid down for the Swedish Green Building Council Environmental Building (*Miljöbyggnad*) Silver category.



## Energy-efficient buildings

### New construction, continuation

Marieberg Preschool – certified according to the Swedish Green Building Council Environmental Building (*Miljöbyggnad*) Silver category

- Preschool (740 sq. m.): four departments, a studio and a dining room.
- Certified as ‘Environmental Building Silver’.
- Climate adaptation in the form of a sedum roof.
- Natural daylight indoors through the use of Solatubes on the roofs.



**FUTURUM**  
FASTIGHETER I ÖREBRO AB

Vintrosa Skola – School building and dining room certified as ‘Environmental Building Silver’

- School building, 1,200 sq. m.
- Energy use is 20 per cent lower than the statutory stipulations.
- Certified as ‘Environmental Building Silver’ (one of two buildings to date).
- Pellets-fired
- Window U-value 0.9 for the whole window.



**FUTURUM**  
FASTIGHETER I ÖREBRO AB

Pärllöken – a building that satisfies the requirements for classification as a passive building

- 24 apartments.
- Energy use per sq. m. is below 40 kWh/year.
- Geothermal heating, solar panels and LED lights.
- Windows and roofs with low U-values – 0.9 and 0.09 W/m<sup>2</sup>C.
- Energy use is well below the current statutory stipulations.



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## Energy-efficient buildings

### Renovation

Maskinisten - renovation of student accommodation

- Student accommodation, 50 apartments, 2,400 sq. m.
- Energy use reduced by almost 40%, representing a saving of 132,000 kWh per year.
- Redevelopment includes:
  - Supplementary insulation of the walls and roofs.
  - Introduction of individual metering and charging for hot and cold water.
  - Replacement of:
    - i. Ventilation system (FTX)
    - ii. Windows (U-value 0.9)
    - iii. Lift
    - iv. Radiators



Renovation of multi-family dwellings will reduce energy use.

- In Hovsta, some 70 apartments (6,700 sq. m.) have been renovated. Energy use has been reduced by one third, representing a saving of 402,000 kWh per year.
- In Varberga, some 40 apartments (3,700 sq. m.) have been renovated.
- Energy use has been reduced by 40%, representing a saving of 200,000 kWh per year.



## General environmental initiatives

Reduced eutrophication through improved nitrogen removal.

- Ammoniacal nitrogen is now below the limit stipulated in the environmental quality standards.
- Nitrogen reduction 81%.
- Phosphorus reduction 96%.
- The reduction of ammoniacal nitrogen is an energy-intensive process. Nevertheless, this investment, has led to improved nitrogen removal as well as lower energy use. Energy efficiency enhancement has led to a reduction in energy use by almost 20% (1,700 MWh/year).

