



# Green bonds to finance the green transition in energy-efficient housing



## Östersund, Sweden

### IN A NUTSHELL

*Through a green bond scheme that began in 2017, Östersund has set up a framework for financing sustainable investments in renewable energy, mobility and energy-efficient housing. Energy efficiency improvements in housing in 2021 have led to 892 MWh/year of energy use avoided.*

### The Green bonds process: A deep dive into Östersund's climate objectives

The city of Östersund has set an ambition of becoming climate neutral by 2030. To succeed, the city must increase its renewable energy use and reduce energy consumption by 30% (compared to 2010). Achieving such an ambitious, system-wide energy transition requires coordinated political leadership to inspire all public and private actors. Thus, the city intends to make all its operations climate neutral by 2025 and revise all local regulations to align with its climate programme.

The Climate Strategy<sup>1</sup> introduced the Östersund Green Bonds Scheme in 2017 as an innovative financing tool for investments in climate-smart, ecologically sustainable and energy-efficient projects. The framework has a strong emphasis on transparency, and an obligation to make the investments publicly accessible. While investors have an opportunity to independently allocate their money to sustainable projects, the city council, and the council-owned companies Jämtkraft and Östersundshem, also issue green bonds to finance projects that meet the requirements set out in the Green Bond Framework developed in 2017: reduction of greenhouse gas emissions; contribution to climate change adaptation; and investment in environmental projects that address issues other than the climate (max. 20%).

### How does it work in practice?

In 2020, Östersund issued SEK800m (close to 80 million euros) in green bonds to be used over 5 years for Green Projects in several categories: banks, funding companies, pensions and insurance companies.

1. The climate strategy is a document that was approved in 2019. It capitalises on 8 strategic development areas identified in the climate programme and transforms them into 74 climate measures to be implemented during the period 2019-2023.

## ÖSTERSUND



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<b>Population:</b> 63,985 31/12/2020	<b>Area:</b> 2,517 km <sup>2</sup> , with an urban area of 27.28 km <sup>2</sup>
<b>Signatory to the Covenant of Mayors since:</b> 2009	<b>GHG emission reduction:</b> 60% by 2020 Climate neutrality by 2040

### USEFUL LINKS

- » <https://bit.ly/3BcFnIt>
- » <https://bit.ly/3qCOWp6>
- » <https://bit.ly/3BzwPMf>
- » <https://bit.ly/3qzIbKS>

Green Projects are funded, in whole or in part, by green bonds with the purpose of reducing GHG emissions, adapting to climate change and increasing resilience. An analysis and selection of projects is conducted by Östersund's Climate and Environment Unit in consensus with the Finance Unit and the council-owned companies to ensure the project is in line with the Climate Strategy. This is done based on a life-cycle perspective, which in some cases includes a Life Cycle Assessment. For example, an adaptation measure should not counteract energy efficiency and vice versa. In fact, green bonds can't be used to finance nuclear power or fossil fuel-based projects. Thanks to this framework that provides clear transparency and selection criteria, and an impact-reporting mechanism for projects on renewable energy and energy-efficient buildings, the bonds' governance structure ensures compliance with the city's climate objectives. To increase its transparency, the green bonds framework is also externally evaluated by a research institute.

## From housing to sustainable mobility: green bonds for a more integrated local energy system

Since 2017, bonds worth a total of SEK 3.375 billion (€321,644,000) have been issued within the framework of the council's bond programme. Green Projects have been implemented by municipal units, the energy company Jämtkraft, and the city-owned housing company Östersundshem AB. Östersund has invested in charging stations for electric buses, solar roofs and cycle paths. Jämtkraft has invested in wind power and district heating plants and reinvested in hydropower plants. Östersundshem has invested in a photovoltaic park and built energy-efficient and sustainable housing in the areas of Stallmästaren, Tallbo and Litshöjden. One of the innovative measures implemented consisted of a direct-current network between buildings and solar panels, as well as an innovative energy hub combined with battery storage. The result was a smart energy system that keeps costs down for electricity subscriptions and makes solar panels more profitable. Together with a public-school project in Remonthagen, 89% of all housing projects in 2020 were financed with green bonds. The annual amount of energy produced by the whole portfolio of projects financed by the green bond framework is 694,827 MWh, the annual energy use avoided is 892 MWh, and 253,885 tonnes of CO<sub>2</sub> emissions are saved each year. Beyond the environmental benefits, the housing projects have been carefully designed to produce other social benefits, such as the development of the energy-efficient, innovative and sustainable residential area Stallmastaren. The project also promoted social sustainability through collaboration with the Public Employment Service. In the construction process, the contractor was required to offer internships to newly arrived and long-term unemployed young people.

## Key lessons learned and next steps for the city

Three key factors are at the root for Östersund's success: firstly, the know-how and resources to set up and manage a green bond framework; secondly, access to and trust from the investors who buy the bonds in exchange for returns; and thirdly, good collaboration with council-owned companies to ensure they contribute to the council's climate objectives.

A key success factor was the decision to engage the council-owned companies and other societal stakeholders at a very early stage, during the process of defining Östersund's Climate Strategy, and, more broadly, from the council-owned companies' own commitment to sustainable development.



### KEY FIGURES

SEK 3,375 billion (**around €316 million**) in green bonds issued since 2017

SEK 950 million (**around €88.2 million**) in green bonds issued in 2021

The project portfolio in 2021: **694,827 MWh/year** of energy produced, **892 MWh/year** of energy use avoided, **253,885 tonnes/year** of CO<sub>2</sub> equivalent avoided

**128** new households

Fossil fuel free by **2030**



### FINANCING THE PROJECT

- + **Financing sources for green building projects:**
  - 89% from City of Östersund green bond scheme
  - 7% financed through investment support from Boverket, the National Board of Housing, Building and Planning
  - 4% from own non-loan-financed funds
  - Only residential green buildings, excluding City of Östersund green buildings
- + **Total amount:** SEK 889 (€84.72)



### CONTACT

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