



COMBINED HEAT AND POWER

→ When you produce electricity, you also produce a lot of heat – but in conventional power generation the heat goes to waste. However, in combined heat and power plants heat, hot water and electricity are generated at the same time and distributed to the consumer.

THE SOLUTION

! The Oresundsverket is a combined heat and power (CHP) plant in Malmo, Sweden – and one of the most efficient power plants in Europe. The gas-fired plant is central to Malmo's energy requirements, as it produces electricity, hot water, and heat for the city. In fact, around 40% of the city's heat demand is covered by the waste heat from the power production. The heat is distributed through the district heating system network of underground, well-insulated pipes.

WHY A SUSTAINIA100 SOLUTION?

? At a time when energy is increasingly becoming scarce, we cannot allow it to go to waste. Power plants that do not exploit the excess heat generated have efficiency rates as low as 30% The Oresundsverket can reach up to 90% efficiency at full co-generation – producing electricity and supplying heat to the city.



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SWEDEN



A SINO-SWEDISH URBAN SOLUTION

→ Government-to-government collaboration between China and Sweden has resulted in a new sustainable city, Wuxi, in China.

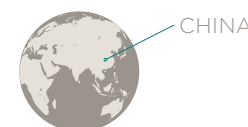
THE SOLUTION

! A neighborhood within the city of Wuxi has been redeveloped according to the strictest Swedish city-planning standards. Accommodating 40,000 new residents in a sustainable community, it maintains indigenous cultural heritage and fragile wetland ecology nearby.

The design of the Wuxi eco-city was tendered in close collaboration between Chinese and Swedish state officials. The plan includes Eco Index guidelines, focusing on energy consumption, waste management, sanitation, water preservation, traffic, transport, and sustainable building designs – all integrated into the Eco-city plan.

WHY A SUSTAINIA100 SOLUTION?

? Between now and 2020, China needs to build 400 new cities. That's nearly 30 per year, housing more than 300 million people moving from the countryside. Much like a number of emerging economies, China urgently needs to integrate sustainability into its city planning to reduce pollution and ease the pressure on its energy supply. Collaborations across continents and states, such as Wuxi, can inspire and help push towards more sustainable urbanization.



CHINA



ECONOMIC

An array of sustainable solutions such as combined heat and power generation from waste, recycling, and building insulation provide cost-effective sustainable solutions for Wuxi.



SOCIAL

Wuxi will be a pedestrian-oriented and barrier-free community.



ENVIRONMENTAL

Wetlands are preserved and re-seeded. Wuxi aims minimize its impact upon nearby national asset Taihu Lake.

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