Design

Harbor light
Water so clean, you can fish in it—plus mile upon mile of bike lanes to explore



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INTELLIGENT CITIES

Northern Star. Stockholm runs on green energy and wants to export it to the world

By Ayesha and Parag Khanna

CALL IT RECYCLING OPPORTUNITY. AFTER THEIR failed bid to host the 2004 Summer Olympics, Stockholm city leaders decided to turn a would-be sports village in the Hammarby Sjostad district into one of the world's most successful eco-villages. The practices of powering buses with biogas, recycling rainwater for irrigation and using organic waste for fertilizer spread to other districts of Scandinavia's largest city. So clean is the city's water today that fishermen actually stand on bridges in the central business district, catching fresh salmon and trout.

Stockholm was named the first European Green Capital in 2010. Since then, green innovation has become a pillar of Swedish national competitiveness. With its new target to become a fossil-fuel-free city by 2050, Stockholm hopes to turn green into gold by exporting smart power to an energy-conscious world.

The plan involves creating a smart grid that would allow renewable energy (including solar and wind power) to flow between the homes and offices of residents. Buildings would become "green houses" that not only use but also store green energy and then feed it back into the grid whenever possible. This should enable yearly carbon emissions to be reduced to 1.5 tons per person by 2020—well below the U.S. average of 20 tons. Construction has just begun at the new Royal Seaport, where ships will be able to plug in and charge up using the onshore electric grid, meaning they can shut off noisy engines, making harbor areas more attractive to live in.

Delegations from nearby Copenhagen and Helsinki and places as far-flung as China have become regulars in Stockholm, taking notes on how the city government is building out its grid through public-private partnerships involving Finnish utilities and Swiss engineering titan ABB.

The next step is to export Stockholm's smart energy to the world. Denmark, for example, is connected by underwater cables. There's talk of using such physical connections to enable development of a pan-European energy grid that would theoretically allow all of Scandinavia to export wind and hydropower southward. Swedish historian Gunnar Wetterberg made waves when he called for the five Scandinavian countries to form a United Nordic Federation in the next 20 years. There'd be plenty of votes for Stockholm as its capital. ■

Ayesha and Parag Khanna are directors of the Hybrid Reality Institute, a think tank that explores the implications of emerging technologies

STREET SMARTS



GETTING AROUND
Owning an electric car will be easy in Royal Seaport. There will be charging stations everywhere. Parking is another matter: the plan calls for half a space per home, to encourage carpooling



TRASH WRANGLING
Above: an incinerator in the Hammarby Sjostad area of Stockholm. Garbage that isn't recycled or composted is burned. The resulting energy is captured and used to heat residential buildings



ROOMS WITH A VIEW
Housing in Royal Seaport, above, as envisioned by Swedish architect Gert Wingardh. Apartment buildings will be low-rise and sited for maximum exposure to sunlight. Balconies will face water or a park

CLOCKWISE FROM LEFT: OLIVIER MORIN—AFP/GETTY IMAGES; FORTUM; TYRONE TURNER—NATIONAL GEOGRAPHIC SOCIETY/CORBIS; STOCKHOLM ROYAL SEAPORT

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