



Urban Agenda Platform

*The global platform for sharing progress, action and knowledge on the implementation of the New Urban Agenda to achieve sustainable urban development.*

# The International Building Exhibition IBA Hamburg and its “Climate Protection Concept Renewable Wilhelmsburg”

Region	Europe and Central Asia
Award Scheme	Guangzhou Award
Start Year	2005
Sustainable Development Goals	Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable

## Summary

Hamburg decided to support the redevelopment of the Wilhelmsburg neighborhood of the city through hosting the International Building and the International Garden Show (IBA) in 2005. An “IBA Partnership” was established which brought together 150 private companies and the local community. As a result over 70 projects were developed around three themes including cities and climate change.

## Background and Objective

To support the new urban development program of the city of Hamburg, called “Leap over River Elbe”, and to connect the city center with southern city districts, the Hamburg Senate decided in 2005 to present the International Buildings Exhibition (IBA) and the International Garden Show (IGS) in the district of Wilhelmsburg. To organize both shows, the IBA and IGS, and the Hamburg government founded two city-owned companies in 2006 linked in terms of structure and management. Wilhelmsburg has 55,000 inhabitants living in an Island on the Elbe, which is vulnerable to flooding. It is also an ethnically diverse and low income community with an environment affected by industrial and transport infrastructure. The projects are based on maximizing the use of local energy resources by energy saving and energy efficiency thereby strengthening the local economy as a result. The aim is to use 100 percent local renewable energy by 2025 and 100 percent renewable heat by 2050, making Elbe carbon neutral.

## Actions and Implementation

The foundation for making the IBA area a more energy efficient environment was called the Climate Protection Concept Renewable Wilhelmsburg, which was developed by an international committee of experts in collaboration with IBA from 2008 to 2010. The idea behind the resulting “Energy Atlas”, is that the city should utilize local energy resources to supply renewable energy and at the same time to considerably increase the efficiency of local energy consumption. Undertaking several researches and studies, the results demonstrate that it is possible to supply the Elbe Islands by local renewable energy sources by 2050 even with a population growth from 55,000 to 73,000. In detail, a 100 percent supply of renewable power is possible until 2025, and a supply of 85 percent renewable heat until 2050, to make the Elbe Islands nearly carbon neutral until 2050.

## Outcomes and Impacts

Until now, the already realized or already scheduled projects will generate a renewable power production of 54 percent and a renewable heat production of 14 percent of the overall demand by the end 2015. After the realization of the IBA projects, a new “Implementation Plan” will be the second Action Plan until 2020 or 2025. It will: •continue already started IBA projects •start planned projects •transfer existing IBA structures, concepts and networks into a “post IBA period” •develop totally new projects •attend the general German and Hamburg development Strengths of the Initiative and Innovation The main aspect of the “Climate Protection Concept Renewable Wilhelmsburg” is to tackle the challenges of global climate change by the development and the implementation of measures within the borders of the city or districts. This can be done by energy savings and energy efficiency, the use of local renewable energy sources and strengthening the local economy. Therefore the working group undertaking the relevant studies were working on a district level and used a scenario analysis to compare future energy demands and the potential for savings, increased efficiency, and the use of renewable energy in the various types of urban building environment on the Elbe Islands, and the develop strategic measures for the optimization of energy supplies. The study examined two different reference scenarios for 2013/2020/2050, applying Germany-wide trends in innovation, efficiency and the introduction of renewable energy to the Elbe Islands. Two scenarios were developed as an alternative to the reference scenarios to incorporate concrete IBA projects and also to examine different areas of emphasis in renewable energy supplies. The two scenarios share the fact that they are local and decentralised solutions adapted to the special local ability to achieve autonomy in renewable energy. The results of the study, undertaken in close cooperation with the IBA’s



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specialist Energy and Climate Advisory Board, form the most important basis for the “Energy-Atlas” of the Elbe Islands, and represent the strategic instruments and projects of the Elbe Islands’ future energy supply systems. The aim is the presentation of a spatial energy model for the IBA’s demonstration region. The results of the study demonstrate that it is possible to supply the Elbe Islands by local renewable energy sources by 2050 even if the population will grow from 55,000 up to 73,000. In detail, a 100 percent supply by renewable power is possible until 2025, a supply of 85 percent renewable heat until 2050, to make the Elbe Islands nearly carbon neutral until 2050. The first projects like the “Energy Bunker”, the conversion of a former World War II aircraft shelter into a power station and heat storage and the “Energy Hill”, the transformation of a toxic landfill into a location of wind turbines and PV as well as a public park, have been realized in close cooperation with local people and will be continued.

## Sustainability and Scalability

The IBA Hamburg Model and the Climate Protection Renewable Wilhelmsburg strategy are already being used in other parts of the city. Additionally the IBA is sharing the knowledge generated with other partner cities.

## Resources devoted to delivery

Source of practice <http://www.guangzhouaward.org/a/976.html?lang=en>