

Energy Alliance

Rostock, Germany



Energy Alliance - an expert and stakeholder platform to assist in the urban energy transition

The Rostock Energy Alliance (Energiebündnis Rostock) was founded in April 2011 by the City of Rostock and nine other municipal stakeholders from sectors such as public transport, housing and waste and water management. Their united goal is a locally based energy supply fully sourced from renewables. While CO₂ emissions should be reduced, quality of life should not. The Alliance meets face-to-face biannually to exchange knowledge and experience, as well as to seek synergies for various constituent activities. The Alliance aims to reduce the annual CO₂ emission per person to 2.5t or less by 2030. Compared to 2010, this is equal to a 2% reduction per year. To date (2015), the Energy Alliance supported the city in the creation of an energy transition concept and the current implementation of associated measures [1], in addition to the foundation of an energy cooperative.

Country/ City Profile



Source: © OpenStreetMap contributors

Country		City	
Population (2014)	80,889,505 [9]	Population (2013)	203,431 [10]
Land area (km ²)	357,170 [9]	Land area (km ²)	181 [10]
GDP per capita (2014, current international \$, at purchasing power parity)	45,802 [12]	GDP per capita (2012, US\$, at purchasing power parity)	34,410 [10]
Region	Central Europe	Region	Coastal (Baltic Sea coast)

City's physical geography

Location	<ul style="list-style-type: none"> ✓ Rostock is a medium-sized city on the north-east coast of Germany (flooding risk, risk of sea level rising) ✓ The city is located in the state Mecklenburg Western-Pomerania within the geographical region of Northern Lowland. ✓ Rostock is situated on the Warnow river, which flows into the Baltic Sea in the northern quarter of Warnemünde.
Climate	<ul style="list-style-type: none"> ✓ Maritime climate (average temperature: 8.4 C°) with significant rainfall throughout the year (507 mm/year annual rainfall) [10]

Initiating context

Since 2009, the EU Climate and Energy Package is a set of country-binding EU legislation to meet the "20-20-20" targets: a EU greenhouse gas emission reduction by 20% compared to 1990 levels, a 20% share of renewables in the EU energy consumption mix and a 20% improvement in energy efficiency by 2020 [2]. In contributing to the achievement of "20-20-20" targets, Rostock, located in the EU Member State Germany, aims to have 80% of its energy supply generated from renewables by 2050 and an increase in energy efficiency [3].

Rostock's energy supply is mainly based on fossil fuels which must be imported into the region. In 2005, Rostock started developing its first Climate Protection Framework concept to show municipal options for reducing greenhouse gas emissions. In 2010, the municipal parliament passed a revised version as a resolution. As part of this process, in 2008, the Agenda 21 working group on energy transition was formed in conjunction with the establishment of an administrative office for Climate Protection of the City of Rostock [5].

Since 2012, Rostock is one of 19 pioneer cities of the project "Masterplan 100% Climate Protection" supported by the German Environmental Ministry. The resulting Masterplan lists measures and monitoring tools to increase the city's energy efficiency by 50% compared to 1990 levels and to reduce CO₂ emissions by 95% by 2050. The

Masterplan further aims at supporting sustainable lifestyles and economies as well as renewable energy sources and regional material cycles [7].

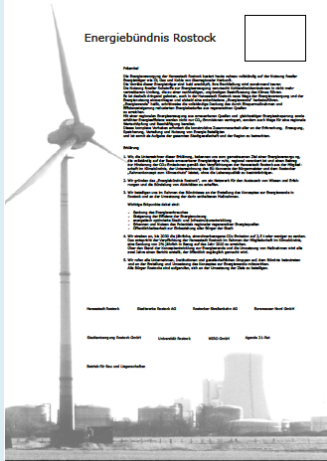
Project description

The Energy Alliance meets twice a year. Its major objectives of the energy transition are: a decrease in energy use, an increase in energy efficiency, the development of an energy-optimised city and infrastructure, detection and use of the potential renewable energy sources and use of public relations to include local citizens [1]. Through expert panels, the Alliance discusses issues around, e.g. the use of district heating, energy efficient construction or photovoltaics on residential buildings. The Alliance supported the development of Rostock's "Masterplan 100% Climate Protection" which includes 44 measures that are partly executed by Alliance members [7]. For example, the local water utility, an Alliance member, aims at an energy self-sufficient sewage treatment plant, energy savings through optimisation of their water and waste water plants, as well as fuel savings through route optimisations. Since 2014, the members of the Energy Alliance invite citizens every year on an energy tour to visit facilities and experience current energy first hand (e.g. at the heat and power station or waste management plant [11]). The Alliance further founded a local energy cooperative [8]. This cooperative aims at increasing the share of renewable energy, especially photovoltaics, by providing easier network integration. For example the cooperative has helped citizen connect their solar plants to the electricity grid.

Implementation process

In 2011, the Energy Alliance was founded during the third Climate Protection Framework meeting as a platform to support the German energy transition. The 10 founding members of the Alliance are; the City of Rostock, the Municipal Utility PLC, the Tram Transport PLC, the Housing Cooperation Ltd, the Water Management Ltd, the Waste Management Ltd, the Company for Federal and Municipal Construction and Real Estate Management, the Local Sustainability Council, the University of Rostock and the District Association of Craftspeople. Additional members are a solar energy provider Ltd and the engineering company Siemens PLC [6].

Projects implementation details [1, 4]

Process	The Energy Alliance is an advisory council for the municipal energy transition. It formed as a local stakeholder group to implement the EU and national climate protection and energy transition objectives. Major achievements were the support of the Masterplan kickoff-meeting and the foundation of an energy cooperative. The council meets biannually and forms expert panels.	
Financing	The Energy Alliance is a voluntary advisory council.	
Leadership	10 members founded the Energy Alliance in 2011. Currently it has 20 members (2015). It is open to anyone interested in participating.	<div style="text-align: right;"> Founding Document of the Energy Alliance 2011 </div> 
Involved stakeholders	Members <ul style="list-style-type: none"> ✓ City of Rostock ✓ Municipal Utility PLC ✓ Tram Transport PLC ✓ Housing Cooperation Ltd ✓ Water Management Ltd ✓ Waste Management Ltd ✓ Company for Federal and Municipal Construction and Real Estate Management ✓ Local Sustainability Council ✓ University of Rostock ✓ District Association of Craftspeople ✓ a Solar Energy Provider Ltd ✓ engineering company Siemens PLC 	

Source: [1] (Since 2011, the network has enlarged).

Results

The Energy Alliance creates transparency and exchange on the measures implemented by stakeholders. It functions as an advisory council for the City of Rostock and facilitates the entrepreneurial acceptance of municipal measures. Major achievements of the Alliance are linked to "Masterplan 100% Climate Protection" measures which are in the process of implementation, e.g. an online map on solar energy potential in Rostock and an energy and climate protection concept for the industrial area 'Seehafen' are currently developed. Furthermore, through the Alliance meetings, a local energy cooperative was founded and a yearly energy tour for citizens interested in local energy processes was established. Currently (2015) statistic on the share of renewable energy are only available until 2013 which is too early for any quantitative impact results on the Energy Alliance achievements. The city is

still in a planning and implementation phase to reach a 95% reduction of CO₂-emission by 2050, the phase strongly supported by the Energy Alliance [13].

Lessons learned

The Energy Alliance brings together stakeholders on energy transition in the City of Rostock and educates citizens through yearly tours in local energy processes of Rostock. As working on a voluntary basis, activities of the Energy Alliance are limited by time and money. Diverging interests can make it difficult to concentrate on priority topics to be discussed. However, foresight and motivation of individual actors seems to be high. Within the Energy Alliance, different roles - expertise, power, networking and process promotion - come together forming a basis for fundamental change [14]. The strongest benefit of the group is however their special **expertise** on energy issues. Representing several companies of Rostock, the Energy Alliance has **power** of initiating change, has access to several resources and potential to lead and overcome resistances. Public relation e.g. through online communication (website, blog, etc.) could increase public acceptance of Energy Alliance activities. The Energy Alliance aims to increase **networking** and decrease lack of information and cooperation among stakeholders. **Process promotion** is maybe the weakest point in Energy Alliance activities. As participation and collaboration is voluntary based and meetings are held only biannually, the level of commitment and influence could be higher. Furthermore, the complexity of solution finding processes and the various actors involved can and have caused unforeseen resistances. Improving its weaknesses, the Energy Alliance could be more influential. A strategic point for future activities is to facilitate access to funds.

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