MALMÖ CIBIX WORKSHOP

CiBiX Series on Delivering Resilience Resilient Cities Congress 26-28 June 2019 Bonn, Germany

Malmö is one of the urban areas leading Sweden's transition towards a more renewable energy future. However, Malmö is now facing urgent challenges related to energy security and resilience that need to be addressed by local governments, key energy stakeholders and relevant partners. Join ICLEI's City-Business Collaboration Accelerator (CiBiX) Ideator workshop in partnership with Resilient Regions to co-develop ideas on Malmö's energy challenges, solve partnership challenges and share your expertise.

City Overview

Malmö is scaling up renewable energy capacity as part of Sweden's national goal of being fossil fuel free by 2045. The city itself aims at being powered by 100% renewable energy by 2030. To achieve this ambition the city has a comprehensive strategy to invest in decentralized energy solutions including neighborhood-based rooftop solar panels, redevelopment of industrial areas with energy innovations, as well as the electrification of transport modes.

One current leading initiative is Sege Park. Previously a hospital complex, it is now a new sustainability district that has 1 250 square meters of solar cells, making it one of Sweden's largest photovoltaic plants. Another is the Hyllie district, a smart city project that has encouraged residents to become energy "prosumers" (producers and consumers). This is done through the installation and application of new energy technologies including smart meters, storage solutions, decentralized grids and district heating and cooling.

When it comes to transport, Malmö is committed to advancing walking, cycling and public transport, but the city also has several electric transport initiatives underway. It is already possible to charge electric cars at several public charging stations located across the city. Other projects include an electric car park, which provides access to parking and solar charging stations. The city is also converting its municipal fleet with a range of electric cars, bicycles and maintenance vehicles.



Delivering Resilience in Malmö

Malmö is also aware of the need to integrate its energy investments together with its strategy work towards a more resilient and sustainable city. One of the city's biggest concerns lies in meeting growing energy demand with reliable power. Malmö is already experiencing a surge in energy demand closely tied to digitalization and the electrification of heating and transport. This level of accelerated demand growth creates difficulties for the city's action plan on advancing renewable energy and investment in smart and renewable energy systems and infrastructure.

Recently energy shortage risks have started to intensify. These shortages can heavily impact urban areas in terms of slowing down economic growth as well as curbing future investment in new infrastructure technologies, such as expanding public charging infrastructure.

To tackle these challenges Malmö has been working with key partners to identify both policy and technology-driven solutions. Tools and policies that strengthen participation in energy markets such as financial incentives or regulatory benefits encourage residents to participate in decentralized energy schemes and help to balance and stabilize energy loads. Innovation competitions are also unlocking new ideas around energy resilience pressure points such as finding effective and efficient energy storage and battery solutions.

Working on and developing solutions that increase energy resilience also has wider benefits. For example, smaller municipalities in Sweden, also intending to move towards renewable power, are eager to learn from Malmö's experiences and knowhow.

Identified Challenges and Opportunities

The City of Malmö is looking to engage experts and peer cities in a workshop that will tackle the current challenges below with foresight on how energy decentralization will impact the city's future resilience. A deep-dive ideation discussion will help to highlight the needs of the city and the actions that should be taken to deliver more resilient energy systems in the future.

Affordable energy access – While energy cost per kWh in Sweden is one of the lowest in Europe, the cost of access to energy infrastructure is increasing. Ensuring widespread grid access is an important aspect for long-term energy resilience. Malmö is interested in identifying how cities support and improve access to quality infrastructure in a cost effective and equitable way for local residents.

Increasing grid flexibility – Characteristically decentralized energy means that there is more fluctuations and variation in energy supply leading to potential shortages or overloads. For Malmö, finding solutions that increase grid flexibility is essential to improve energy sustainability and reliability.

Energy resilience for electric mobility – A major aspect of Malmö's sustainability plans is the shift towards electric modes of mobility. However, the city anticipates that this will require considerable amounts of investment in new infrastructure and increased renewable generation capacity. How can electric transport scale in a way that doesn't strain current energy capacities?



Workshop Details

26 June 2019 - 16:00 - 17:30 Resilient Cities Congress - Bonn, Germany



