



EVENT DESCRIPTION

Project Partner: City of Kalmar and ESS

Title of the event: Kalmar City Working Visit

Date & location: 6th-7th of May 2015 Kalmar Municipality

Organiser(s): Kalmar Municipality and Energy Agency of Southeast Sweden

Number of Participants: 28

Summary

The Municipality of Kalmar organised with the Energy Agency of Southeast Sweden a working visit within the Streetlight-EPC project. The main objective was to permit city partners to exchange on issues relating to energy performance contracting (EPC) in the field of street lighting as well as other EPC application possibilities. Representatives from the cities of Maribor, Trhové Svinj, Skopje and Santander as well as several external experts and stakeholders attended the event.

Objectives & main programme points

The objectives of the city visit were to learn from each other and exchange information regarding EPC for street lighting. The event encouraged interaction and communication between project partners and experts, leading to an exchange of “know how” between project partner regions.

Kalmar municipality started the day by explaining the administrative structure of the municipality and how the decision making process works. ESS explained how the region's goals are connected with regulations "No oil 2030". Kalmar Municipality also explained their energy goals/ targets for the future, and the progress achieved so far.

The main programme points of the visit were:

- Presentation of the strategy for street lighting and potential areas of interest for EPC projects: planning of street lighting in the municipality, procurement and tender for EPC projects, inventory of Kalmar municipality streetlights in the past, present and future.
- How to learn from the procurement process for other EPC projects and adapt/implement it on streetlight EPC procurement processes.
- LED streetlights in Kalmar: installation and evaluation of LEDs in cities, EU project



in which Kalmar was a partner in 2008 to 2012.

- LED project on Ölands bridge: details on the technology used and the projects results.
- Presentation of the Sala-Heby Streetlight EPC project (Philips) and of EPC streetlight projects in Europe and America. A good briefing of the technology available today and what to think of when writing the tender for the procurement process.
- In the afternoon of the 6th of May a site visit was organised to:
 - various areas in Kalmar for the LED project 2008-2012
 - potential areas for EPC projects
 - the Ölands bridge, an LED project in Kalmar

Conclusions & lessons learnt (based on stakeholder input)

- Meeting representatives from other cities was an important opportunity.
- A thorough inventory and analysis of the current situation is a very important step. This should not only include data, but also photos and visits of the actual areas to gather as much information as possible and help find the best solution.
- It can be advantageous to bring various stakeholders into street lighting projects during the planning phase since they offer input from various points of view. Once opinions are gathered and concrete needs are determined, experts and technical staff can help find solutions.
- Optimal planning is key to increase social acceptance of new lighting systems.
- There are no two projects alike. There is no "one solution fits all" for street lighting projects. Different countries also have different conditions and approaches. With EPC, the contract can be developed to suit the specific situation and needs.
- Training is important to help keep staff informed about new technologies and how to work with them.
- In EPC, it is crucial that the client be able to clearly describe what he wants as lighting systems so that the planner or ESCO can find the right technical solution. Understanding technical criteria of lights is very important and also very difficult for clients.
- One challenge faced in Sweden is the high importance given to soft values and how light is "experienced". It is difficult to translate such requirements into technical criteria for the procurement phase.
- LED is a mature technology. Current technologies permit to achieve both energy saving and lighting comfort. Clients no longer need to choose between the two.
- There are interesting options for dimming and control systems on the market. These can help increase energy savings even more.
- Special lighting can be used to increase the visual aspect of the city (e.g. on bridges, important buildings, etc.) and increase safety at critical locations. The site

visit to the bride in Kalmar and the information received about the project was very useful as the lessons learnt and be integrated into other projects.

- Increasing citizen awareness about energy efficiency is important and helps increase the acceptance and support of LED projects. Initiatives such as the EU project Night Hawks, energy smart box help in this field. Pilot projects in schools support the development of energy awareness from an early age.

Kalmar Municipality "No oil 2030", Marie Jönsson and Jane Lindström

1. Transboundary collaboration
2. Strong political will and actions
3. SMART objectives (specific, measurable, accepted, realistic and timed)

Kalmar Municipality project for Cycle strategy, Thomas Eidrup

1. Useful to have a holistic approach that combines hard and soft measures, working together across borders.
2. Dealing with infrastructure is a long term process and a commitment over long time is necessary to reach results.
3. Maintenance is crucial. The biking city is something that needs to be cared for each day in a number of aspects.

Kalmar Municipality Strategy for Street lightning, Emma Andersson

1. It is important to consider the social aspects, for example the level of light. Color temperature, color rendering, if the light blends you, even light, etc.
2. It is to prefer to have a strategy for streetlights in a municipality. Then everyone whom is working with streetlights will have the same vision.
3. In some cases of streetlights it is better to light the sides of the street than the street itself to keep the feeling of being safe.

Kalmar Energi, Kalmar Municipality streetlights, Jonas Wågenberg

1. Short technical background of Kalmar city light system
2. Our experience of changing to a smart lighting system
3. Don't forget considering reinvestment in cable and poles

EPC project on Kalmar Municipality buildings indoors, Gunilla Svensson

1. Educate yourselves of the concept EPC
2. Take help of an purchasing consultant to draw up the agreements
3. Define your own organization.

ESCO Caverion inform us about the EPC project on Kalmar Municipality buildings indoors, Anders Fagerkrantz

1. EPC is a Partnership

2. EPC is a Business model
3. EPC saves energy but will also reduce maintenance & operational costs

LED project Ölandsbridge, the bridge from Kalmar to Öland, Joakim Frank

1. Led save a lot of energy
2. Savings with LED-technology is not enough in a longer perspective, right kind of controlsystem needs to be used

Philips project EPC Sala-Heby Streetlights and The technique today, Bram Joosen

1. Being connected is more than just dimming, it is all about the data. Data and information helps to justify done investments and helps prepare and request future investments. Based on historic information you can optimise your system further
2. Product versus system liability: Who is responsible if something is not working properly in your system. System and software knowledge is a vital part of making right decision, if not available within the organisation make sure capabilities are build or hired in.
3. Lack of available funds should not be a show stopper. With the lifetime of outdoor installations you will always be cheaper with LED & Controls than current installations. Financing will provide customer funds to invest now and pay off the installation as they go forward



