

EVENT DESCRIPTION

Project Partner: ESS

Title of the event: Training, Seminar Workshop: Belysningsdag i Kalmar

Date & location: 17.03.2015

Organiser(s): ESS

Number of Participants: 60

Summary:

This day was a cooperation between ManagEnergy, Streetlight EPC and PRIMES. The first half of the day was a training and seminar and the second half where suppliers dialogue, roundtable/regional workshops and a workshop about how to use GPP in covenant of Mayor and other strategic work.

Objectives & main programme points

- EU's Ecodesign Directive, Energy labelling, Energy efficient products – TF member The Swedish energy agency
- LCC, procurement of maintenance work – ÅF Lighting
- Sustainable planning for Street lighting. – ÅF lighting
- Other outdoor lighting appliances – ESS
- Experiences from Linköping Municipality – Tekniskaverken
- Experiences from "Nyttljus" the Swedish transport administrations contribution to the EU-project ESOLI – TF member
- Smart, intelligent lighting in cities, charge electric vehicles at streetlight poles - Sust
- How to choose the right technic for you installations – Primalence (supplier)
- New technique from a manufacturers perspective
- LaaS a new ay of procuring streetlight – BTH TF member – Aura light (supplier)
- Do the right calculations LCC, criteria's for GPP and how to use the suppliers dialogue
- Did we get what we wanted? – electroscandia (supplier)

Workshop

- Procurement and EPC strategies – Streetlight EPC
- Procurement – LCC and GPP – PRIMES
- Covenants of mayors, green accounting, key figures and GPP – ManagEnergy

Supplier's dialogue

- Dialogue with suppliers – Streetlight EPC and PRIMES



Conclusions & lessons learnt (based on stakeholder input)

In street lighting procurements there must be requirements for:

- the project designers lighting competence
- Energy-aware planning
- Facility Energy Efficiency
- Lighting plant life cycle cost (LCC)
- Operating and Maintenance Plan

The requirement on the product most focus on

- the light sources Energy Efficiency
- lifetime of the lamp
- light sources of mercury content
- the energy efficiency of the drivers
- The luminaire's enclosure class
- Fittings, operation and maintenance
- The luminaire's light distribution
- Luminaire prepared for dimming
- Control system for lighting control

Lighting fixtures must meet the following criteria.

- The luminaire must meet environmental requirements under the Environmental Directive RoHS.
- Luminaire and bracket must be of aluminum and painted with two coats of varnish
- Total system capacity including drivers can be 19W 5% deviation.
- Total system light output from luminaire to be 1550lm or more. No less than 82lm / w
- Color temperature CCT should be about 3700-4200kelvin.
- To obtain the long life of the current must be between 190-210mA.
- Lifetime should be according to the standard SS 12464 specified by type (L80F10).
- The luminaire must have a symmetrical light image.
- All electrical equipment must be standard equipment for easy interchangeability.
- The luminaire must include attachment for both post top and arm 60mm. Adapter of 48mm must be included.
- Bracket must be adjustable with visible graduated scale. Setting range specified in the tender.
- Adjustment of the fixture may be made after the luminaire has been mounted, and without opening the luminaire.
- The luminaire must be fitted with shatterproof glass.
- The luminaire must be protected to IP65 and vandal-proof class IK08.
- Cable H07RN-F3G1.5 the length of 8m to be pre-mounted on the valve.
- All screws must be stainless steel.

- The warranty period shall be at least 8 years and include both material and labor for replacement.

DESCRIPTION SURFACE

- The requirement of lighting level must correspond to P3 as VGU (a Swedish standard).
- The requirement of lighting level must correspond to measure the book.

The requirement of procurement of lighting construction

- Procedures for environmental management system
- the contractors street lighting competence
- Operation and maintenance of lighting installations
- contractor waste procedures
- Chemical products
- Work Machines
- Euro-class heavy & light vehicles
- Carbon dioxide requirements light trucks & cars

Example of how to write the requirements/criteria's

The life cycle cost of a streetlight installation/system (LCC)

Minimum/basic requirements

- The bidder **must** present a life cycle cost analysis of the planned facility using the enclosed LCC calculation for lighting systems.
- The planned system in the bid **must** be compared to the existing installation (if available) and further at least one other lighting solution. An analysis of the election shall be reported.
- Operating and maintenance plan **must** be considered in the calculation.

Communication and dialogue - advantages

- Knowledge of suppliers on the market
- Create consensus on the mission and avoid false expectations
- Setting the right requirements to get the right solution and the right price
- Ability to discuss industry-specific issues and possible improvements.

LaaS will bring to market lighting that is powered, connected and controlled by digital networks. This will create vast capabilities to manage smart loads, reduce costs and carbon emissions, and create new use cases for lighting. LaaS will open a new spectrum of digital innovation and change the way we think about light.

- Go from the lamp to the lighting!
- Illustrate and accentuate what you want to sell / communicate correctly!



- Consider the choice of material, colour and contrast so that the "right" feeling created!
- Make sure to get the energy monitoring in place
- LEDs provide significant energy reduction but there is an over-reliance even on reduced operating the maintenance in general
- Make sure to keep track of your equipment, and not least for corrosion on the poles
- LED saves energy and is the most energy efficient and best technical option for lighting in the current situation
- LED technology needs to be supplemented with control systems to increase savings and meet future requirements
- LED technology will mean higher skill requirements for the organization of the operation, maintenance and maintaining plant data, a cost shift from energy to the knowledge of plants
- Use the help from experienced lighting technician / lighting consultants.
- In the tender not only specification of the luminaire shall be stated you must even describe the way you want it to light to be perceived
- Search for DIALOGUE with suppliers .Don't guess.