

## Public Consultation on Street Lighting

Public Utilities Commission of Sri Lanka (PUCSL) as the regulator for electricity industry wishes to receive public views on the proposed management strategy with respect to street lighting in Sri Lanka.

### Background

Street lighting consumes about 1.5% of the total demand for electricity in Sri Lanka. Most of the street lamps out of the estimated 700,000 installed are hung on Medium Voltage (MV) or Low Voltage (LV) poles used in the distribution network, and dedicated street lighting poles are limited to urban areas. Most of the street lamps are installed by the local authorities/ municipalities and thus designs standards are yet to be fully imposed as there are so many decision makers with some legal authority.

Urban Councils Ordinance allows the local authorities to make by-laws related to street lighting in the respective Local Authority area and the same Ordinance allows them to recover costs in street lighting from the rate payers. At the National Level, Sri Lanka Sustainable Energy Authority can also make nationally effective standards on street lighting and the related energy consumption. At policy level Ministry of Power and Renewable Energy (MOPRE) has the authority to make policy level decisions related to street lighting, and in fact the Ministry has already issued few circulars on street lighting that control energy consumption for street lighting (2% of the demand) and some general guidelines on street lighting design.

PUCSL as the regulator for electricity industry has imposed limits on public street lighting energy consumption (a maximum 2% of the total demand) for each of the five distribution Licensees (Four Licenses held by Ceylon Electricity Boards' – CEBs' four distribution regions and one License held by Lanka Electricity Company- LECO). Since most of the electricity consumption for street lighting is not billed or paid for by the Local Authorities, PUCSL had to impose these limits to control the impacts on electricity consumers who collectively bear that electricity cost, and since most of the Local Authorities who can collect rates for such services are not willing to bear that cost. However, there is a small minority of Local Authorities who have come to agreements with the electric utilities to manage street lighting and are bearing the costs. In addition, Road Development Authority who manages national road network and the expressways has agreements for the dedicated street lighting installations and thus pay for the electricity.

### Issues

- Adequacy of street lighting

Through the national electricity utilities are capable and are already developing standards for street lighting, the national institutions like Sri Lanka Standards Institution (SLSI), Sri Lanka Sustainable Energy Authority, MOPRE or the PUCSL is not in a position to fully impose them as Local Authorities have legal powers to impose by-laws. As a result, the roads and public places are poorly lit and the available street lamps are poorly designed, maintained and operated. In the absence of national

standards the local authorities are subject to lot of political decision making in providing street lighting, and hence key factors like energy efficient designs and equipment are overlooked.

- Safety

Most of the street lamps are hung on MV/LV distribution poles and thus owned by the utilities. The Local Authority employees shall not climb the poles for installation, maintenance or operation of those street lamps unless monitored/ approved by the utilities, but they do so without utility monitoring in most if the local areas, and this is a safety hazard specially since the networks use bare conductors. Ideally utility technicians shall install, maintain and operate these street lamps.

- Management

There is legacy element where local authorities have dedicated staff and budgets to install, operate and maintain street lighting and thus wish to maintain the status quo. Though there are safety issues, utilities may not like to take over the street lighting due its inherent management issues; public complaints, political decision making, additional man power management, additional equipment maintenance, etc that are difficult to manage and unlikely to be paid by the local authorities, especially in the rural areas.

- Cost recovery

Since most of the local authorities do not pay for electricity consumption for street lighting, there is little incentive for energy conservation/efficiency improvement in street lighting. Ideally users of a particular service shall pay for it, in case of street lighting users are local residents or the road users, and thus they should ideally pay for the electricity used for street lighting. The local authorities are best suited to collect rates and cover the costs of street lighting, and they are not doing so due to many reasons; low rate base, poor collection mechanisms, legacy issues; not used to paying for electricity consumption, etc. At the moment electricity consumers who are not directly involved are bearing the cost.

### **Proposed Management Strategy**

- Technical standards and criteria in relation to designing, installation and maintenance of Street lighting shall be imposed by the Sri Lanka Sustainable Energy Authority (SLSEA), in consultation with CEB, LECO, PUCSL, SLSI, Local Authorities, etc. These standards shall be made mandatory for new street lighting installation and for maintenance of existing street lighting. (Expertise at Research and Development divisions of CEB and LECO could be utilized for this purpose).
- Design, installation, operation and maintenance of street lighting shall be conducted by the utilities (CEB/LECO), and the Local Authorities with sufficient technical expertise could be allowed to do the installation, operation and maintenance work under the supervision/ permission of the utilities.
- Standardized procedure shall be enforced to request new installation of street lighting by the communities and Local Authorities from the utilities. The requested new installations shall not

be approved by the Local Authority/ utility unless the relevant street/ road meets the national criteria set by SLSEA.

- Cost of design, installation and maintenance of street lighting shall be borne by the respective Local Authorities or the relevant Provincial/ national Road Development Authority.