



Electric Lamp & Component Manufacturers' Association of India

LED Lighting Chapter



10th May, 2012
India Habitat Centre, New Delhi

1. Background

In an effort to provide more Energy Efficient Lighting sources, it is observed that LED Lighting is emerging to be a very important segment that can be tapped to replace many inefficient lighting sources. LED has matured to a level that it can now be brought to India immediately. During a brainstorming, following barriers were noted to be tackled in order to launch LED lighting in India successfully:

- Limited availability of LED technology in India
- High initial cost of LEDs that makes the pay-back period very long
- Absence of National standards for LEDs as a result industry is prone to import sub standard products
- Consumer awareness very low
- Lack of testing protocols, facilities and accredited laboratories at the national level
- No incentive either to set up manufacturing facilities in India.

In order to achieve successful launch of LED Lighting in India, government initiative was inevitable. Elcoma initiated to partner with Ministry of Power to seek for immediate government support. The ministry with the help of Bureau of Energy Efficiency prepared a white paper “Preparation of Economic case to stimulate LED Lighting in India”. It recommended various steps that would ensure a perfect launch and introduction of LED Lighting in India. Following recommendations were made:

- To constitute a central Institutional mechanism (CIM) which along with other stake holders shall oversee the design, development and implementation of the program and put in place a robust monitoring and evaluation process by an independent agency like National Productivity Council / National Manufacturing Competitiveness Council (NMCC).
- Aggregation of future LED demand under regulatory oversight is the appropriate way to significantly enhance volumes and therefore attract leading manufacturers to India and have co-benefit of reduced cost
- Mandating phased domestic manufacturing for such demands must be integrated in the policy framework
- Appropriate fiscal incentives need to be structured by the Government to promote LEDs in India (e.g. tax, duties, tariffs, incentive to manufacture in India etc)
- To give immediate push, initially to concentrate on commercial applications
- Recommendation to MoP to provide atleast one LED lamp under “electricity to all villages” scheme.
- Motivate Central and State government procurement agencies to take part in this program
- Setting up of a neutral, trusted testing facility urgently. (Government approved Rs. 25 Crores for this initiative last year)
- Technical standards must be mandated by BIS
- Domestic manufacturing of these technology materials and processes may be encouraged in the first phase.

Contents

	Pages
1. Background	3
2. Initiatives by ELCOMA	4
3. ELCOMA LED Lighting Chapter	6
3.1 Objective.....	6
3.2 Major Activities.....	7
3.3 LED Lighting Excellence Centre	8
3.4 Composition of LED Lighting Chapter	9
3.5 Structure.....	10
3.6 Proposed membership fees	11
4. Application form for membership of LED Lighting Chapter.....	12
5. Board Members of LED Lighting Chapter	14
6. List of recently released LED (BIS Standards)	15

2. Initiatives by ELCOMA

Within Elcoma. It was decided to launch LED Lighting in India similar to CFL launch made in 2005-06. LED Committee was formed to prepare entire program for promotion of LED Lighting in India. To give a further push to two segments of LED Lighting i.e. LED Lamp and LED Luminaire, it was decided to have two committees for respective segments.

The first official meeting of the committee was held in May 2009, which was attended by members from Osram, Crompton, Philips, Surya & Halonix. During this meeting three major decisions were taken:

- a) We must include non-ELCOMA manufacturers of LED gears & luminaires as ELCOMA LED committee members. Accordingly, a list of large 20 companies was prepared and letters were sent to them. Six manufacturers immediately joined Elcoma within one month.
- b) It was also decided during this meeting that we must prepare standards for light source, drivers and safety standards for luminaires. Accordingly, existing international standards were obtained which were studied and later, with the help of BIS 12 IEC Standards were modified to Indian requirements and endorsed.
- c) It was also decided to concentrate on three categories and prepare specifications that can be aligned to Indian requirements. These are:
 - i) Secondary Road Street Light
 - ii) Down lighters
 - iii) General lighting (Self Ballasted LED Lamp)
- d) It was decided to seek support of BEE in framing Labeling Standards and Streetlight guidelines.

As a follow up initiatives were taken seek support from government:

- 1) Support from Government – ELCOMA had meetings with Ministry of Commerce, Ministry of Power and apprised them of our initiative. Government has agreed to extend support by issuing regulations to change following:
 - a) Showrooms to replace halogen down lighters with LED down lighters. This will be implemented once we are ready with specifications and submit to Ministry.
 - b) Municipalities to replace secondary road and parking lot lighting with LED streetlight. This initiative has already been started and BEE has prepared a guideline with a help from USAID. This is in discussions with Elcoma members and once approved, will be sent to all municipalities by BEE / ELCOMA
 - c) Offices & commercial areas to replace corridor, staircase and general lighting area with LED luminaires
 - d) Government to include LED Self Ballasted Lamp in all its BLY like projects

- 2) An awareness program has already been launched by ELCOMA in a big way. Some of the highlights of these programs are:
 - a) **SEMINAR & EXHIBITIONS:** LED Lighting Conclave was organized at New Delhi in May 2010 which was well attended by over 400 delegates in the seminar and more than 6000 visitors to the exhibition. Similar conclaves are organized for Hyderabad in April 2011 and Mumbai in November 2011. The conclaves will have two days seminar and three days exhibition. Elcoma members will not only get special rates for exhibition space, but also the seminar participation is limited to Elcoma member only.
 - b) **SPECIFICATIONS:** LED Lighting products specifications need to be prepared to facilitate government procurement and quality awareness for consumer. The specifications for Streetlights, Downlights and Self Ballasted Lamps have now been prepared.
 - c) **LED GUIDE:** To create awareness and also give basic information on LED lighting, a LED Lighting Guide is being prepared. This guide will be freely distributed at all exhibitions and also mailed to municipalities, PWDs and other government procurement departments.
- 3) **STANDARDS:** BIS has discussed in details with Elcoma on new draft IEC Standards. Two special technical panels were formed to look at these draft standards. 12 IEC standards have been studied by the panels and finalized after modifications
- 4) **TEST FACILITIES:** Due to inadequate test facilities available in India, Ministry of Power was apprised of the situation. The Ministry approved Rs. 25 Crores and CPRI has established a Test Lab for LED Lighting products. Three more such labs are expected to be established in India soon.
- 5) **LED LIGHTING CHAPTER:** In order to cater to the requirement of various kind of product segments that also included signages, indicators, security lights besides the regular LED Lighting products, it was decided to have a “LED Lighting Chapter “. The Chapter will cater to the requirements of all stake holders may be manufacturers, designers, architects, government bodies etc. Accordingly this topic was discussed in both the LED committees and after brain storming and finalizing on basic operations and functions of the Chapter, it was decided to set up a special Core Group to give a final shape to “The LED Lighting Chapter”

A meeting of the core group was held at Elcoma office on 7th April 2011 to finalize framework of Elcoma LED Lighting Chapter. Members of the core group present were:

1. Mr. H. S. Mamak
2. Mr. S. Chakraborty, Surya Roshni
3. Mr. Mayank Beejawat, Philips Lumileds
4. Mr. Kailash Singh, Philips Electronics
5. Mr. Shyam Sujan

3. Elcoma LED Lighting Chapter

3.1 OBJECTIVE:

The LED Chapter, representing the LED Light sources inclusive of retrofits aims to act as an important link to support each other in matters connected with LED Lighting industry, to promote and develop co-operation among the LED Lighting Products Manufacturers and to further facilitate the overall interests of its members.

The chapter will help upgrade the knowledge and technical capabilities of its members to liaise with other relevant LED Committees of ELCOMA and with other organizations both in India and abroad.

The Chapter will seek to be single point information and contact centre for LED Lighting in India for stake holders which will include customers, manufacturers, importers, exporters, government bulk purchasing agencies, various ministries, test labs, Research & Development Centres, government policy makers like BIS, BEE, ISO, Ministries, Architects, specifiers, designers, international organizations and others.

3.2 MAJOR ACTIVITIES:

- 3.2.1 To enable manufacturer of LEDs inclusive of retrofits to federate or cooperate by becoming members or associates of the LED chapter, either by themselves or their nominees or act as their representatives or spokesmen for such manufacturers.
- 3.2.2 To promote and develop co-operation among the LED manufacturers and other ancillaries and business and to further facilitate the manufacture of products in particular.
- 3.2.3 To promote the consideration and discussion of all questions affecting LED Lighting industry and all ancillary to generally watch over and protect the interest of persons engaged in the manufacture of such products.
- 3.2.4 To diffuse among its members information on all matters, affecting the led Lighting products manufacturers to print and publish, issue and circulate such papers and periodicals, circulars and other material relevant as may be seen conducive to any of these objects.
- 3.2.5 To collect information and circulate and publish the policies and activities of the chapter from time-to-time by emails, circulars, or news bulletins.
- 3.2.6 To conduct seminars, conferences, symposia, lectures and publish its official bulletin, 'Elcoma' LED Lighting News Letter and make known to public the activities of the chapter.
- 3.2.7 To provide to its members statistical information pertaining to LED manufacturers inclusive of retrofits and keep the members informed regarding latest technical development, quality control etc.
- 3.2.8 To facilitate preparation of various technical standards in association with BIS, Labeling programs with BEE and product specifications for bulk buyers and end consumers.
- 3.2.9 To be in close touch and establish liaison with various institutions and organizations local and global on technology development and exchange best practices and benchmark for LED Lighting.
- 3.2.10 To make representations and to deal with the subjects that affect the LED manufacturer and find ways and means of solving the problems and difficulties relating to subjects like finance, import-export, supply of raw materials, machinery and spares, taxation (all types-customs, excise, octroi, sales tax etc), industrial relations, procedural delays, factory enactments, power, transportation etc.

3.3 LED LIGHTING EXCELLENCE CENTRE

It should be endeavor of the Chapter to provide and fulfill all collective requirements of the stake holders. It should play the role of final authority on LED Lighting in India. The centre should provide:

- 3.3.1 Knowledge and education on new developments on LED technology
- 3.3.2 Create R & D facilities
- 3.3.3 Have a world-class exchange centre for information relating to LED Lighting
- 3.3.4 Organize conferences and workshops
- 3.3.5 Have a world class library of various works, applications, standards and best practices on LED Lighting

3.4 COMPOSITION OF LED LIGHTING CHAPTER

“ELCOMA LED Lighting Chapter” will be a semi-autonomous body of ELCOMA. It is desired that all important stake holders in LED Lighting become members of this Chapter.

Members shall be from:

3.4.1 Category (a)

LED Manufacturer –Light sources inclusive of retrofit.

- 3.4.1.1 Luminaires manufacturer
- 3.4.1.2 Lamps manufacturers
- 3.4.1.3 Large Importers and Exporters of LED Lighting Products
- 3.4.1.4 LED Signage manufacturers
- 3.4.1.5 LED Electronic component and accessories manufacturers including Drivers, optics manufacturers.
- 3.4.1.6 LED Automotive Lighting Manufacturers, Importers, etc.
- 3.4.1.7 Assemblers, Third Party suppliers and Vendors

3.4.2 Category (b)

- 3.4.2.1 Testing Laboratory
- 3.4.2.2 R & D Centres
- 3.4.2.3 International organisations promoting energy efficiency

3.4.3 Category (c)

- 3.4.3.1 Government Departments
- 3.4.3.2 R & D organizations
- 3.4.3.3 Educational Institutions

3.4.4 Category (d)

- 3.4.4.1 Engineers
- 3.4.4.2 Architects
- 3.4.4.3 Designers
- 3.4.4.4 Specifiers etc

3.5 STRUCTURE:

There shall be a Governing Body (GB) consisting of office bearers and members who will be duly nominated as per their caliber and need of the chapter. The Chapter will report to the GB. The Chapter will have following structure:

- **Chairman:** Plays an important role in the development of chapter and maintains cohesive approach towards reaching the specified goals of the chapter
- **Co Chairman:** Assists the Chairman on the goals of the chapter
- **Executive Officer:** He shall be responsible for the execution of the initiatives by the LED Chapter and to create awareness on the cause of LED Chapter
- **Members of Governing Body:** At least 8 members selected from various groups of general members

The LED Chapter Governing Body will report to the ELCOMA GB

3.6 PROPOSED MEMBERSHIP FEES:

Category	Membership Fee*	Annual fees
(a)	Rs. 2000	Rs. 2000
(b)	Rs. 1000	Rs. 1000
(c)	Exempt	Exempt
(d)	Rs. 500	Rs. 500

*This is a one-time joining fee

4. APPLICATION FORM FOR MEMBERSHIP OF LED LIGHTING CHAPTER

Please return this proforma duly completed and with DD / Cheque in favor of Electric Lamp and Component Manufacturers' Association of India and other documents to:

**MR. SHYAM SUJAN, Secretary General, ELCOMA,
A-448, Lower Ground Floor, Defence Colony, New Delhi 110024**

Please Note:

- a. No Minimum Value turnover is required to become a new member. The membership fee is to be paid as at present, but may be revised from time to time and the fee applicable at the time of approval will be charged
- b. The fees for membership w.e.f. 18TH July 2011 is as under:

Category	One time Entrance Fee	Annual fees
(a)	Rs. 2000	Rs. 2000
(b)	Rs. 1000	Rs. 1000
(c)	Exempt	Exempt
(d)	Rs. 500	Rs. 500

Category (a) LED Manufacturer—Light sources inclusive of retrofit, Luminaires manufacturer, Lamps manufacturers , Large Importers and Exporters of LED Lighting Products, LED Signage manufacturers, LED Electronic component and accessories manufacturers including Drivers, optics manufacturers, LED Automotive Lighting Manufacturers, Importers, etc., Assemblers, Third Party suppliers and Vendors

Category (b) Testing Laboratory, R & D Centres, International organisations promoting energy efficiency

Category (c) Government Departments, R & D organizations, Educational Institutions

Category (d) Engineers, Architects, Designers, Specifiers, etc

- a. All new proposals for membership are to be finally approved by the Chairman of the LED Chapter
- b. Please enclose copy of last Balance Sheet, Product catalogues etc. If applicable

- 1. Name of the Applicant: _____
- 2. Designation: _____
- 3. Name of organization: _____
- 4. Address _____

Telephone No. _____ Fax No. _____

Mobile No.: _____

E-mail _____

Website address: _____

5. Membership Category (Refer to above) _____ Specific Profession _____

6. Names of Directors / Partners (not applicable for individual applicant): _____

7. Specialization _____

8. Annual turnover of organization Rs. _____

9. Annual Income Rs. Crore _____

10. Are you a member of any other Similar Association? If Yes, please mention name of the association _____

13. Any other information: _____

Date..... Seal

Signature Designation

APPROVAL BY THE GOVERNING BODY

The Proposed application presented before us is found to be suitable / not suitable for membership and the same is APPROVED / NOT APPROVED for ELCOMA LED CHAPTER Membership

CHAIRMAN

CO-CHAIRMAN

EXECUTIVE OFFICER

Date.....

Date.....

Date.....

5. LED Lighting Chapter Board Members for the year 2012-13

Company	Representative
Surya Roshni Ltd., Chairman	S. Chakraborty
Philips Electronics India Ltd., Vice-Chairman	V.K. Gupta
Philips Lumileds, Member	Amrith Prabhu
Nichia Corporation, Member	Ravi AV
Osram India Pvt. Ltd., Member	Rajat Mandal
Instapower, Member	H.R. Vaish
Crompton Greaves, Member	Swaroop Bolal
Wipro, Member	Makarand Sainis
Bajaj Electricals, Member	R. Sundararajan
ELCOMA, Executive Officer	S. Suresh

6. List of recently released BIS Standards – LED

SI No	IS No	Title
1.	16101 : 2012	General Lighting - LEDs and LED modules – Terms and Definitions
2.	16102(Part 1) : 2012	Self- Ballasted LED-Lamps for General Lighting Services Part 1 Safety Requirements
3.	16102(Part 2) : 2012	Self-Ballasted LED-Lamps for General Lighting Services Part 2 Performance Requirements
4.	16103(Part 1) 2012	Led Modules for General Lighting- Safety Requirements
5.	16103 (Part 2) 2012	LED modules for general lighting Part 2 Performance requirements
6.	15885(Part 2/Sec 13) : 2012	Lamp Control Gear Part 2 Particular Requirements Section 13 or a.c. Supplied Electronic Controlgear for Led Modules
7.	16104 : 2012	d.c. or a.c. Supplied Electronic Control Gear for LED Modules – Performance Requirements
8.	16105 : 2012	Method of Measurement of Lumen Maintenance of Solid -State Light (LED) Sources
9.	16106 : 2012	Method of Electrical and Photometric Measurements of Solid-State Lighting (Led) Products
10.	16107 – Part 1	Luminaires Performance Part 1 General requirements
11.	16107 – Part 2	Luminaires performance Part 2 Particular requirements Section 1 LED Luminaire
12.	16108 : 2012	Photobiological Safety of Lamps and Lamp Systems

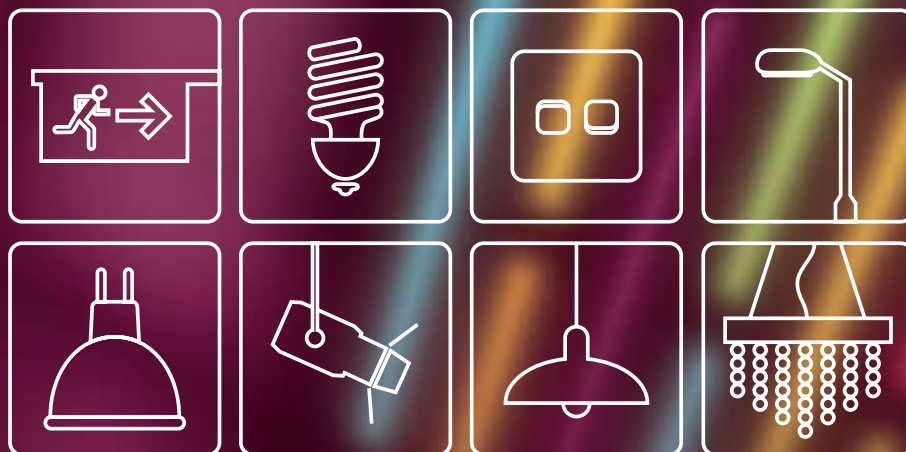
In addition the sub-committee on LED Lamps and Controlgear of which the Secretary General, Elcoma is the Chairman has commenced work on following to come out with new IS standards

1. Measurement of beam intensity and beam angle
2. Non-ballasted lamp – safety
3. Non-ballasted lamp – performance
4. LED binning – general requirement
5. LED Module – performance
6. Double capped lamp
7. Assessment of blue light hazard

light

INDIA

5 – 8 October 2012
Pragati Maidan
New Delhi, India



Featuring green lighting technology
www.light-india.in

For space booking, please contact:
rasheedanwaar@light-india.in
+91 9990 10 1000