



MINUTES OF MEETING

Name of the Meeting	DATE	VENUE
Technical Committee Meeting for Tubular fluorescent Lamps & LED lamps under Standard & Labeling Program of BEE	5 th February,2015	Conference Room, Bureau Of Energy Efficiency

CHAIRMAN: Dr. Ajay Mathur, Director General, Bureau of Energy Efficiency.

WELCOME ADDRESS BY THE CHAIRMAN:

Dr. Ajay Mathur, Director General, BEE extended a warm welcome to all the members. The meeting was attended by the laboratories, consumer organization, Manufacturers & manufacturing association of TFL and LED lamps. The meeting began with a round of introduction from all the members present in the meeting and subsequently he asked Mr.Saurabh Diddi, Energy Economist, BEE to made presentation on tubular fluorescent lamps and LED lamps.

Item 0: Introduction

To start with the discussion, Mr.Saurabh Diddi briefed about the proposals of revised rating plan of TFL and voluntary labeling program for LED lamps that were discussed in the last technical committee meeting. He also informed that additional pre-qualification criteria's for TFL that was finalized in last TCM. Subsequently, the following agenda points were discussed:

Agenda 1: LED Lamps	Agenda 2: Tubular Fluorescent Lamps
<ul style="list-style-type: none">• Pre-qualification criteria• Star rating plan• Label on packing and lamps	<ul style="list-style-type: none">• Scope of TFL labelling programme• Revised Star Rating Plan & Label• Validity period

ITEM 1: Labelling program for LED lamps:

1. Submission of photo biological test report, lumen maintenance (LM 80) from the LED chip manufacturers and safety requirements as per IS 16102 part 1 is finalized as the pre-qualification criteria. It was informed that the safety requirements test report shall not be more than two years older at the time of application submission. The requirements of RoHS, luminous intensity, flicker and color maintenance were also discussed as a part of pre qualification criteria. However, it was informed that these requirements shall be considered later in the program for inclusion.
2. At the time of application submission, test reports with 95% lumen maintenance at 1000 hours shall be considered for approval and the permittee should submit the test report at 6000 hour



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- lumen maintenance as per IS 16102 (part II) within 12 months from the date of approval of label. The chair also informed that,
- a. the label will be withdrawn, if the permittee fails to submit the test report within 12 months from the date of approval of label;
 - b. penalty shall be applicable, for those models failed in rated lumen maintenance as per the test report submitted within 12 months from the date of approval of label.
3. The requirements of harmonics level & power factor as per IS 16102 part II were discussed. However stakeholders mentioned that the harmonics limitation as per IS 16102 part II is under revision. After deliberation, the chair informed that the harmonics level as per IEC 61000 and power factor as per IS 16102 part II shall be considered as a pre-qualification criteria for labeling.
 4. It was finalized that the testing sample size shall be as per IS 16102 part II and the tolerance for lamp power & luminous flux shall as per IS 16102 II. However, the chair informed that there is no tolerance for luminous efficacy in star rating band and the products tested must be at par or better than the star rating band threshold.
 5. LEDMA has submitted its proposal on rating plan for LED lamps (enclosed as F/B). However majority of the stakeholders opined that there should be a common rating plan for TFL & LED lamps. Consumer VOICE organization also mentioned that, the common rating plan helps consumer to aware about energy efficient product that is available in market. After a wide deliberation, the chair informed that the following common rating plan shall be followed for LED & TFL's.

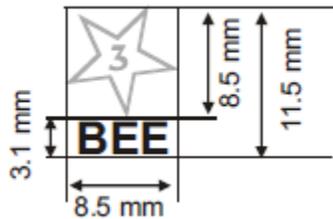
Star Rating	Luminous Efficacy (lm/Watt)
1	≥ 68 & < 79
2	≥ 79 & < 90
3	≥ 90 & < 105
4	≥ 105 & < 120
5	≥ 120

6. It was informed that the above rating plan shall be in voluntary stage for LED lamps from the date of launch till 31st December,2016 and the same will be moved to mandatory stage from 1st

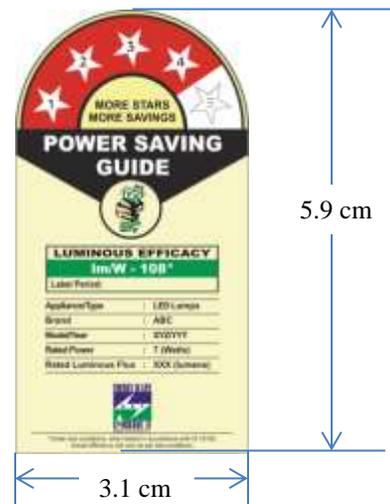
Jan,2017 & will be valid till 31st Dec,2018. The chair also informed that Star 1 shall not be issued during voluntary stage and star 1 & star 2 shall not be issued once LED lamps are moved to mandatory stage.

7. A sample label star label for LED lamps was presented and it was informed that the same will be affixed at the following areas:
 - a. Either Star label will be printed on the package or a durable card-board, self adhesive shall be affixed on package; and
 - b. Respective star mark shall be printed on the lamp cover.

(a) Printed on Lamp



(b) Printed/pasted on packing



It was informed that the LED lamp wattage equivalent to conventional ICL shall be printed on packing and labelling fee to the permittee shall be INR 0.50 per lamp.

Item 2: Table Revision for Tubular fluorescent lamp:

1. It was finalized that the star rating shall be decided on the basis of lumens output at the end of 100 burning hours and the following as an additional pre-qualification criteria (as per IS 2418) to participate in the star labelling program
 - a. Shall have efficacy (lumen/W) of 85% at the end of 2000 burning hours and
 - b. Shall have efficacy of 80% at the end of 70 percent of declared life.
2. It was informed that the scope of TFL labeling program covers all wattage lamps covered under IS 2418, excluding T12 lamps as per BIS amendment no.09 to IS 2418.

The Chair also informed that BEE will withdraw the star label of T12 lamps with effect from 2nd march,2015 and no star labels will be approved from now onwards. He also asked all

stakeholders to evict the T12 lamps within the date specified by BIS to avoid penalty to the manufacturers due to check testing.

- Revised common rating plan and new label were presented. All the stakeholders agreed for the common rating plan & appreciated the efforts of BEE. The common rating plan is as follows:

Star Rating	Luminous Efficacy (lm/Watt)
1	≥ 68 & < 79
2	≥ 79 & < 90
3	≥ 90 & < 105
4	≥ 105 & < 120
5	≥ 120



It was decided that the new label and the revised rating plan shall be effective from 1st January 2016 and valid till 31st December 2017. It was also decided that the lamp efficacy in terms of lumen/W shall be further revised and upgraded by 1 star with effect from 1st January 2018.

The meeting ended with a vote of thanks from the chair.

Annexure

List of Participants:

S.No.	Name	Designation	Organization
1	Mr.Saurabh Diddi	Energy Economist	BEE
2	Mr.Ashok Kumar	Energy Economist	BEE
3	Mr. Shyam Sujan	Secretary General	ELCOMA
4	Mr. Rahul Mahanoori	DGM	Bajaj Elect.
5	Mr. S.Chakraborty	V.P.	Bajaj Elect.
6	Mr. Suresh Gupta	GM	LEDMA
7	Mr. P.K. Mukherjee	Consultant	CLASP
8	Mr. P.K. Sood	Chairman	Regnant
9	Mr. B.M. Bhatia	Secretary	ISLE Delhi
10	Mr. Gulshan Aghi	President	ISLE
11	Mr. R.K. Jaggi	President	Surya Roshni Ltd.
12	Mr. Deepak Gupta	General Manager	Halonix
13	Mr. Gurpreet Singh	Category Manager LED Unit	Philips India
14	Mr. Anil Gurnani	President Marketing TL	Philips India
15	Mr. Surjya Neogy	Manager Technical	Philips India
16	Mr. Amal Sengupta	Quality Customer Care	Philips India
17	Mr.Kanchan Ghosal	R&D	Philips India
18	Ms. Payal Saha		Philips India
19	Mr. Prashant Kudrya	Quality Manager	Crompton Greaves Ltd.
20	Mr. N.L. Patel	Sr. Engineer	ERDA
21	Mr. Gaurav Arora	Product Manager	Trilux
22	Mr. V.Rohatgi	Director	Binary Opto Electronics
23	Mr. B.V. Singh	Marketing	Binary Opto Electronics
24	Mr. K.C. Chaudhary	Sr. Manager	VOICE
25	Mr.Ashish Saraswat	Project Engineer	BEE
26	Mr.S.Sundaramoorthy	Program Associate	CLASP