

Quality Control Measures of EESL for LED Programmes

1. EESL procurements conform to BIS specification IS 16102 (Part 1) and (Part 2): 2012 for self-ballast lamps and similar specifications for the LED street lights. The homelights carry a 3 year free replacement warranty against technical defects and street lights 7 year warranty. In order to ensure that the manufacturers honour their quality commitments, EESL retains 30% of the contract value as Bank Guarantee for the entire period of warranty. .

2. In addition to the above, EESL follows are 3 tier approach to ensure that quality of LED bulbs is not compromised. The same is as under:

(a) **Bidding Stage:** The prospective bidders are required to provide, alongwith their bid documents, the following test reports from National Accreditation Board of Laboratories (NABL) accredited labs. They are:

- (i) LM-79 test reports that ensure that all technical specifications of EESL are met
- (ii) LM-80 test report for LED chip that ensures that LED chips are of high quality and their lumens do not depreciate over time
- (iii) Photo-biological test that ensures that the light quality is maintained and there is no health hazard

(b) **Distribution/ Installation Stage:** EESL picks up samples of LED bulbs/ street lights at each place where the distribution is taking place and from the manufacturing facility in a random manner and gets it tested at NABL accredited labs. These tests are carried out at the manufacturers facilities (Pre-Despatch Inspection) as well as from the field locations where these are being distributed.

(c) **Post Distribution Stage:** EESL maintains a 24X7 call center in all locations to enable consumers to register complaints and has made arrangements for fault rectification. The toll free number and the locations where these replacements can be done in case of home lights is informed to general public through mass awareness campaigns. The toll free number is listed on the LED bulb packet as well. For street lights, the manufacturer is responsible for a service level agreement wherein the defective street light has to be replaced within 72 hours. EESL either uses the call centre of the ULB (if available) or sets up its own wherever the project O&M phase commences.

A detailed procedure that is followed by EESL is at **Annex-I**.

3. EESL keeps a record of all complaints received in case of defective bulbs. The summary of the same is as under:

| State | Bulbs distributed (Jan - Oct, 2015) | No of defective bulbs reported (%) |
|------------------|-------------------------------------|------------------------------------|
| Andhra Pradesh | 55.85 lakh | 1,270 (0.022%) |
| Rajasthan | 52.3 lakh | 5,676 (0.1%) |
| Himachal Pradesh | 34.2 lakh | 206 (0.004%) |

Similar is the case in all other states where distribution is going on. Given the very low defect rate, EESL has decided to replace all bulbs as and when the complaints are received.

4. Independent Assessment by Third Party: In addition to the record that EESL keeps for consumer complaints, a third party agency was engaged by EESL to assess the impact of the scheme in the states/ UTs of AP and Puducherry. The study conducted by M/s. Price Waterhouse Coopers (PWC) on a sample basis has indicated the following:

| Sr No. | District / City | Total LED bulbs distributed [A = B+C] | Number of LEDs found operational [B] | Number of LEDs currently not operational [C = i+ii] | Number of defective LEDs [i] | Number of LEDs kept for future purpose and others [ii] |
|------------|-----------------|--|---|--|---------------------------------|---|
| 1 | Puducherry | 338 | 331 | 7 | 4 | 3 |
| 2 | Anantapur | 240 | 237 | 3 | 2 | 1 |
| 3 | Guntur | 240 | 237 | 3 | 2 | 1 |
| 5 | Srikakulam | 240 | 237 | 3 | 3 | 0 |
| 6 | W. Godavari | 240 | 238 | 2 | 1 | 1 |
| Total | | 1298 | 1280 | 18 | 12 | 6 |
| Percentage | | 100.00% | 98.61% | 1.39% | 0.92% | 0.46% |

The fault rate assessed is 0.92% which is higher than what EESL is actually getting because the PWC study was done based on a sample of 100 households in each city.

For the street light programme, PWC assessed the fault rate At just over 1% as indicated under:

| Sr. No. | District / City | Total LED street lights installed (A) | Number of defective LED street lights (B) | Percentage of defective LED street lights (A*100/B) |
|---------|-----------------|---------------------------------------|---|---|
| 1. | Varanasi | 947 | 21 | 2.22% |
| 2. | Jhalawar | 2449 | 21 | 0.86% |
| 3. | Mount Abu | 1807 | 38 | 2.10% |
| 4. | Visakhapatnam | 91775 | 884 | 0.96% |
| 5. | Agartala | 34200 | 425 | 1.24% |
| Total | | 131178 | 1389 | 1.06% |

Standard Operating Procedure for Consumer Complaint Handling

1. Consumer complaints are being handled at three different levels:

- Distribution Kiosks – while distribution is ongoing
- Customer Care Service Centre – facilitated through the bulb suppliers by EESL

The following sections detail the procedure adopted across three modes for complaint handling.

2. Information Dissemination on Complaint Handling

2.1 A city wide awareness campaign is implemented by EESL in order to intimate the consumers about how, where, and when to avail the scheme. Necessary flyers shall be placed in DISCOMs' bill counters for consumers' information

2.2 Each bulb package displays in plain and legible language the customer care service number facilitated by EESL. Such numbers shall as well be disseminated to consumers through the awareness campaigns. Also the bulb packaging will carry a list of general FAQs on the scheme in clear and intelligible language.

2.3 Intermediary campaigns are run to make the beneficiaries aware about the retail outlets for availing fused bulb replacements.

2.4 EESL provides the above information to the DISCOMs on regular basis to deal with complaints received at their call centres

3. Modes of Complaint Handling

3.1 Distribution Kiosks

Step 1: Consumer approaches the kiosk run by EESL with a complaint

Step 2: In case the complaint is on fused LED, the Kiosk supervisor tests the bulb, makes note of the consumer number in the software, and hands consumer the replacement

Step 3: In case the complaint is on not receiving the bulb, the Kiosk supervisor takes the consumer number and supplementary documents, does the eligibility check, checks the software and accordingly updates the consumer

3.2 Retail Outlets

Step 1: Supplier shall nominate retail outlets in a project area for facilitation of replacements

Step 2: Wide awareness campaigns will be run to disseminate information on such retail outlets