<u>Electrical Department</u> <u>Greater Chennal Corporation</u>

Electrical

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History

The History of Electrical Department dates back to 1910. Until then, lighting of the City was done by oil lights. The street lamps were first introduced in 1785. Till 1857 there were only 200 oil light lamps. By the year 1910, there were 6500 oil lights. Electric street lighting was introduced for the first time, during 1910. The improvement of lighting on this account was so marked that the number of electric lights gradually increased till the year 1924-25, where all the lights were completely by electric lights.

Street Lights

The Greater Corporation is now maintaining 2,85,828 numbers of street lights which are energy saving LED lights. In view of these, Rs.2.5 crores per month and Rs 30 crores per year current consumption charges is saved.

Category -Wise Street Lights

| 40W LED Street lights | 188642 |
|---|--------|
| 90W LED Street lights | 45301 |
| 150W LED Street lights | 35696 |
| 70W (FL) LED Street lights | 708 |
| 160W (FL) LED Street lights | 718 |
| 210W (FL) LED Street lights | 830 |
| 240W (FL) LED Street lights | 906 |
| 900W (FL) LED Street lights | 30 |
| 20W LED Park lights | 5070 |
| 30W (FL) LED Park & Play Ground lights | 266 |
| 70W (FL) LED Park & Play Ground lights | 1044 |
| 120W (FL) LED Park & Play Ground lights | 800 |
| CFL Park & Play Ground lights | 5817 |
| Total No. of Lights | 285828 |

513 nos. of High Mast lights are installed in places of Public gathering and important junctions and maintained by Greater Chennai Corporation.

Consumption and Cost

The Energy consumption towards burning of street lights is 19 MW. Before conversion to LED, GCC were paying 6 Crores per month as current consumption charges, After conversion to LED, the current consumption charge is reduced to Rs 3.5 Crores per month, In view of these Rs.2.5 crores per month and Rs 30 crores per year current consumption charges is saved. The Electrical Department is mainly responsible for installation and maintenance of street lights and electrical maintenance of Corporation building, Parks, Playgrounds burial grounds and solar roof top plants in GCC buildings. The maintenance of streetlights can be broadly classified in two categories (viz.) underground cables & Lights fittings. 65 Nos. of ladder vehicles are available at Department for attending non burning of street lights.

Special Nature of Works

Wireless sets have been provided in all Zonal Offices field level officials and in the vehicles of Zonal Officers and other higher officers for easy communication in performing daily routine works of Greater Chennai Corporation. This is also useful during natural calamities, fire accidents and elections. In case of fire accidents occurring during night, and other emergency works, temporary lighting arrangements—are carried out at accident site by the night maintenance squad. 18 mobile high mast vehicles are being kept ready for these emergency—work.

Solar Roof Top Plants

Solar Roof Top Plants have been installed in 60 Greater Chennai Corporation owned buildings with a capacity generation of 175 KWP. In order to increase solar energy, in 662 Greater Chennai Corporation buildings, the work of installation of Solar Roof Top plants with 3.064Mwp capacity have been undertaken at an estimated cost of Rs.24.03 Crores under the Chennai Smart City Scheme and the work are nearing completion.

Officials in Electrical Department

| SI.No | Designation | Mobile No. |
|-------|--|------------|
| 1 | Superintending Engineer/ Electrical | 9445190739 |
| 2 | Divisional Electrical Engineer/ Head Quarters | 9445190751 |
| 3 | Divisional Electrical Engineer/North (Zone 1 to 5) | 9445190753 |
| 4 | Divisional Electrical Engineer/Center (Zone 6 to 10) | 9445190754 |
| 5 | Divisional Electrical Engineer/South (Zone 11 to 15) | 9445190752 |

For Complaints Zonal Assistant Executive Engineers are provided with the following cell numbers for receiving street light complaints.

| SI.No | Zone No. | Zone AEE Mobile No. |
|-------|----------|---------------------|
| 1 | 01 | 9445190041 |
| 2 | 02 | 9445190042 |
| 3 | 03 | 9445190043 |
| 4 | 04 | 9445190044 |
| 5 | 05 | 9445190045 |
| 6 | 06 | 9445190046 |
| 7 | 07 | 9445190047 |
| 8 | 08 | 9445190048 |
| 9 | 09 | 9445190049 |
| 10 | 10 | 9445190050 |
| 11 | 11 | 9445190051 |
| 12 | 12 | 9445190052 |
| 13 | 13 | 9445190053 |
| 14 | 14 | 9445190054 |
| 15 | 15 | 9445190055 |

In order to improve the intensity of light, various steps are being taken by Greater Chennai Corporation

- 1. The short posts and uneven span of street lamp posts are being replaced by new street light.
- 2. The old deteriorated cables which are causing voltage problem are replaced by new cable.
- 3. The main problem of insufficient intensity of lights is due to branches of trees which are affecting the illumination on the roads. In such cases, pruning of trees are done, while attending the non-burning of lights by using cutters.
 - Under Ground Cable are laid and being maintained in all the roads for street lights as a safety measure and it will minimize the faults when compared to over head lines.
 - Laying of underground cable will avoid any untoward accident during monsoon period.

Roles & Responsibilities

| 1 | Superintending Engineer/ | Superintending Engineer/ |
|---|--------------------------------|-----------------------------------|
| | Electrical | Electrical is the head of the |
| | | department and is responsible |
| | | for all the activities of the |
| | | department. |
| 2 | Divisional Electrical Engineer | Responsible for monitoring |
| | | capital and Maintenance works |
| | | and to assist Zonal AEE's |
| | | coming under their control. |
| 3 | Assistant Executive Engineer | Responsible for initiating and |
| | | executing capital and |
| | | maintenance works related to |
| | | street lights and Electrification |
| | | of Corporation building, Parks, |
| | | Playgrounds and Burial |
| | | ground, solar roof top plants. |
| 4 | Assistant Engineer/Junior | Responsible for maintenance of |
| | Engineer | street lights, solar roof top |
| | | plants capital works, under |
| | | their jurisdiction. |
| 5 | Supervisors | Responsible for maintenance of |
| | | street lights, solar roof top |
| | | plants under their jurisdiction. |
| 6 | Electrician/Skilled Assistant | Responsible for attending non- |
| | | burning of street lights, |
| | | maintenance of pillar boxes |
| | | and fuse boxes. |
| 7 | Unskilled Assistant | Responsible for identification |
| | | and rectification of cable fault |
| | | in the street lights. |