

TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LIMITED

ABSTRACT

ECC - Energy Conservation Measures – Provision of LED lighting for the substation buildings, offices and yards of all new substations ranging from 33KV to 400KV and also in the substation buildings, offices and yards of the existing substations while going in for replacement on failure – Administrative approval accorded.

(Per) CMD TANGEDCO Proceedings No. 392 (TECH BRANCH) DATED. 08.09.2015.

Avani 22, Sree Manmatha Aandu,
Thiruvalluvar Aandu 2046.

Read: CMD's Note approval dt. 04.09.2015.

PROCEEDINGS:

The Government of TamilNadu has issued directives to adopt energy conservation measures in all Government offices and buildings including Local Bodies, Public Sector Undertakings etc. by using energy efficient lighting and appliances vide GO.95 dated 02.08.2012 stipulating the usage of LED lamps in locations such as pathways, entrances, corridors, rest rooms etc of the buildings considering its efficiency and life cycle cost.

The Hon'ble TNERC has framed "Tamil Nadu Electricity Regulatory Commission (Demand Side Management) Regulations, 2013" for implementing Demand Side Management (DSM) measures by the Distribution Licensee vide Notification No. TNERC/DSM/20/1 dated 20.06.2013. Further, the tariff order of TNERC also stipulates the implementation of various DSM proposals. It is therefore vital for the organization to unleash the potential of various energy saving opportunities in accordance to the above.

Approval has been accorded vide (Per) CMD TANGEDCO Proceedings No.514 dated 26.11.2014 for providing 710 Nos of 4 feet 16 W LED tubelights in the chambers of HODs, SEs, cabins of EAs and Hall in the TANGEDCO/TANTRANSCO offices in the Headquarters. In the idea of upscaling the provision of LED lighting in substations, 4 feet 16W LED tubelights is recommended for the usage in the substation buildings also.

Comparing the existing 250W HPSV lamp in substation yard lighting, the equivalent 72W LEDs are energy efficient with an energy saving potential of approximately 71%. The high cost of LEDs when compared to HPSV is to be offset by taking into consideration the advantages of energy saving potential upto 71%, higher optical efficiency, long life (50,000 Hrs), no light pollution, light weight, less maintenance cost, eco friendly and the overall integrated performance of LEDs is found to be excellent.

Due to technological improvements over the period of years, the wattage of the LED bulb keeps reducing for the same light output (Lumens/watt). The above fact may be taken into consideration at the time of selecting the wattage of the LED bulbs.

Hon'ble Prime Minister of India on launching the "National Program for LED based Home and Street lighting" on 05.01.2015 described the LED bulb as a "Prakash Path" – "way to light". The Prime Minister lauds this program as an act of patriotism – as it would reduce import bills, and an act of social service – as it would save the environment.

Hon'ble Prime Minister of India during the first meeting of his reconstituted Council on Climate Change seeks paradigm shift in global attitudes towards climate change –from "carbon credit" to "green credits." In this context of achieving climate goals, switching over to LEDs has become inevitable.

As the world moves towards LEDs for lighting, adopting the technology would especially help the utility in narrowing the demand-supply gap.

In view of the above, Chairman cum Managing Director/ Tamil Nadu Generation and Distribution Corporation Limited has approved the following:

- (i) To provide LED lighting such as 4 feet 16 W LED tube lights for all the new substation buildings and offices and 72 W LEDs instead of conventional 250 W HPSV lamp for the yards of **all new substations** ranging from 33 KV to 400 KV by including the cost of LEDs in the estimate/specification for establishment of new substations.
- (ii) To provide LED lighting such as 4 feet 16 W LED tube lights for all the existing substation buildings and offices and 72 W LEDs instead of conventional 250W HPSV lamp for the yards of **all existing** substations ranging from 33 KV to 400 KV **while going in for replacement on failure.**
- (iii) To vest with the responsibility of ensuring the provision of LEDs in
 - all new Substations by the concerned executing authority.
 - all existing Substations while going in for replacement on failure by the concerned controlling authority.

(BY ORDER OF THE CHAIRMAN CUM MANAGING DIRECTOR/TANGEDCO)

S.SHANMUGAM
Chief Engineer
Demand Side Management (a/c)

To
The Chief Engineer/ Demand Side Management.
The Chief Engineers/Distribution.
The Chief Engineer/Transmission.

The Chief Engineer/Operation.
The Chief Engineer/Mechanical Thermal Stations.
The Chief Engineer/GTS.
The Chief Engineer/Hydro.
The Chief Engineer/Projects.

Copy to

The Chairman cum Managing Director's office
The Managing Director/TANTRANSCO.
The Director /Distribution/ TANGEDCO.
The Director /Generation/ TANGEDCO.
The Director/Projects/ TANGEDCO.
The Director/ Transmission Projects/TANTRANSCO.
The Director /Operation/TANTRANSCO.
The Director (Finance)/TANGEDCO.
The Director (Finance)/TANTRANSCO.
The Secretary/TANGEDCO.
The Chief Financial Controller / GI / TANGEDCO.
The Chief Financial Controller / Revenue / TANGEDCO.
The Chief Financial Controller /TANTRANSCO.
The Chief Internal Audit Officer / TANGEDCO .
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// FORWARDED BY ORDER //

R. Parimalakanthi
8/9/2015
Er.R.Parimalakanthi
Executive Engineer
Energy Conservation Cell