

**PREAMBLE TO BILL OF QUANTITIES**

1. The bill of quantities is to be read, for the purpose of pricing, in conjunction with Specifications and Drawings.
2. No change in unit rate shall be allowed for any change in quantity or for any other reason.
3. Rates quoted shall be inclusive of all materials, labour, tools & tackles, power, water, conveyance and all expenses, including all safety gadgets, adherence of safety etc., unless otherwise.
4. The prices inserted in the Bill of Quantities shall be all inclusive of value of the work described, all costs and expenses which may be required in and for the construction of work described with all general risks, liabilities and obligations set forth or implied in the document on which it is to be based.
5. The quantities stated are to be considered as approximate only and the unit prices entered in the Bill of Quantities shall apply to the quantities actually executed. The quantities measured for tender payment shall be limited to two decimals only.
6. The Tenderer must quote his rate in specified column in the Bill of Quantities for each item in words as well as in figures. The cost of items against which the tenderer has failed to quote a price shall be deemed to have been covered by other rates and prices entered in the Bill of Quantities.
7. The total amount tendered for viz. the total obtained by adding up all the items in the Bill of Quantities must be written in words as well as in figures.
8. Unless mentioned otherwise, all finishing of concrete surfaces shall be unformed finish.
9. The Tenderer shall specify the brand of different bought out items offered by him along with the Bill of Quantities.
10. The Tenderer shall affix his signature and the seal at the space provided in each page of Bill of Quantities and all pages of Tender document.
12. The Tenderer shall furnish the makes and details of special items such as water proofing, etc. in the Bill of Quantities sections, and the like along with the tender.

13. Reinforcing steel shall be procured directly from the main suppliers of primary manufacture, TISCO, SAIL, etc.
14. Contractor should furnish the mix design for all grades of concrete works included in Bill of Materials.
15. The contractor shall make his own arrangement and include in the rates the cost of excavated earth and debris without causing any infringements.
16. Discrepancy observed during evaluation of rates i.e., between amount written in figures and amount written in figures, least of the two will be considered as final.
17. Re-steel used for laps, chairs, etc will not be measured for payment.
18. Irrespective of what is contained in different items of Bill of Quantities, surfaces excluding reinforcement shall be metalized with sealer coat on top.
19. Samples of all approved makes shall be submitted to the Engineer-in-charge and approved before the intended supply.
20. Various sizes, spacing etc., indicated under various items of work in BOQ are only indicative and Contractor is liable for minor modifications at the time of execution of work. The Contractor will not make any claim whatsoever for incorporating such changes ordered by Engineer-in-charge.
21. The guidelines for classification of soil shall be as follows:
  - a) All kinds of soil:

Any soil which generally yields to the application of picks and shovels, pneumatic tampers, jumpers or any such ordinary excavating implements / excavators or organic soil, sand, turf loam, mud, clay, peat, stiff clay gravel, cobble stone etc. fall under this category.

(Note: Cobble stone is the rock fragment usually rounded or semi-rounded having maximum diameter in any one direction between 80 & 300 mm)
  - b) Ordinary rock:

This shall include the type of rock and boulders, which may be quarried or split with heavy bars. Laterite, hard conglomerate and amygdaloidal basalts also come under this category.

c) Hard rock:

This shall include the type of rock or boulder for which quarrying or splitting requires chiseling, wedging or other suitable method where excavation is prohibited by plant or blasting. All hard rock excavation shall be carried out only by diamond rock drills or the like.

(Note: Boulder is a rock fragment usually rounded by weathering, disintegration and exploitation or abrasion by water or ice having minimum dimension in any direction more than 300 mm).

22. Concreting of all structural elements shall be done by Ready Mix Concrete using Batchmixer mixer and concrete pump supplied by approved manufacturer. Rates quoted shall include admixtures, mix design & quality control tests for concrete etc.
23. 'Alternate', under amount column means the particular item could be operated during execution of similar item in the BOQ. The tenderer shall quote his rate for this item and rate to be entered in the amount column.
24. The tenderers who submitted their offers shall be deemed to have acquainted themselves with the conditions such as current water table level up to which the ground water table will rise, soil conditions, soil parameters, the existing utilities and other site constraints, etc. The rates quoted by the tenderers against various items in the schedule of quantities shall be inclusive of all works such as continuous bailing out water to the extent required, pumping, and making enabling works such as pumping/bailing and other related works.
25. The Successful tenderer, on the approval of the Engineer-in-charge shall dismantle the existing structure, which comes within the site premises and cart away and disposing the debris to a spot to such a place where the same shall not cause any nuisance and shall be approved by the authorities concerned. The Successful tenderer shall exercise all diligence and care during dismantling operations and shall get the dismantling scheme approved by the Engineer-in-charge before commencement of the work.
26. The successful tenderer shall keep the excavated surfaces absolutely dry during concreting and laying reinforcement bars. The surfaces shall continue to be kept dry till the concrete has set. The Engineer-In-Charge. The water shall not be allowed to come in contact with the green concrete until the final setting time of the concrete is over. The rate quoted by the tenderer for the works shall be inclusive of shoring, strutting by sheet piling or any approved method as approved by the Engineer-in-charge.
27. The tenderers shall also note that the rates quoted shall also be inclusive of the cost of protection necessary to protect water supply lines, sewage lines, power and communication lines and other structures wherever required.
28. The successful tenderer shall make all precautionary measures to ensure the safety and stability of already constructed structural elements and the cost involved for such items of work shall be incidental.
29. If the existing roads used by the successful tenderer for the purpose of construction, shall be maintained under motorable conditions during entire contract period at his own cost and shall be Engineer - in - Charge.
30. The successful tenderer shall be responsible to handover the surrounding areas of construction in original condition and make good / rebuild / repair the structures damaged during construction.

disturbed. The decision of the Engineer-in-Charge shall be final as to what is considered during construction.

31. Unless specified otherwise all measurements shall be taken in accordance with Indian Standard of Measurements of Building and Civil Engineering Works - IS: 1200.
32. The Contractor shall be responsible for the design of all Temporary / Enabling Works.
33. The Liaison Service shall be done by the contractor includes the following works:
  - i) Any Electricity Board, starting from getting approval of the drawing, upto servicing the getting the safety certificate.
  - ii) Preparation of detailed drawings required by the Electrical Inspectorate.
  - iii) Obtaining approval of drawings and installation, including carrying out modification Statutory Authorities
  - iv) Renewal of any temporary power supply connection during construction/ secure temporary power.
  - v) All incidental charges/expenses associated with the above work.
  - vi) High voltage testing by voltage Boosters, Relay calibration by secondary injection and Pre-Commission and De- commissioning test will have to be carried out at site. BDA will extend all assistance for the above works.
34. The installation price of switchboards, metering panels, DB's or any other item supply and fixing of supporting steel structures/MS channels, grouting of the same, etc as required.
35. Any error in description or in quantity or omission of items from the contract shall not be contract but shall be corrected and deemed to be a variation required by BDA.
36. Written approval shall be taken from the BDA, in case of using the material other than listed makes.
37. In case of temporary power required to execute the work in time, same shall be provided by contractor in case of power cut by EB during the execution of work.
38. The contractor should provide all the required lighting samples to site to make trails and fixed for approval.
39. Guarantee period: - The guarantee period for LED luminaries shall be for period of 5 years. security deposit corresponding to 5% of the LED luminaries cost will be refunded on expiry of guarantee period after successful completion & handing over of the entire work. LED drivers has protection CKT, if voltage goes above 300v ac , Driver will switch OFF. If voltage comes at normal rated voltage automatically it will switch ON the luminaries.
40. Contractor's risks
  - a. All risks of loss or damage to physical property and of personal injury and death w during and in consequence of the performance of the contract other than the exc are the responsibility of the Contractor.

#### 41. Approval by the employer

- a. The Contractor shall submit Specification and Electrical drawings showing the Temporary Works to the employer, who is to approve them if they comply with the Specifications and Drawings.
- b. All electrical drawings prepared by the Contractor for the execution of the permanent Works, are subjected to prior approval by Employer before their use.

#### 42. Safety

- a. The Contractors shall be responsible for the safety of all activities on the site in accordance with KPTCL./BESCOM/Electrical Inspectorate's safety manual.

#### 43. Uncorrected defects

- a. If the Contractor has not corrected Electrical equipments Defect within the time specified in Employer's notice, the Employer will assess the cost of having the Defect corrected. The Contractor will pay this amount.

#### 44. ADDITIONAL CONDITIONS OF CONTRACT

##### 44.1 The specifications of the materials not covered in this document but to be used:

- a. Shall conform to the current specification adopted by KPTCL/BESCOM and relevant standards.
- b. For such of the materials for which KPTCL/BESCOM have not finalized the specifications, if the specifications for such materials shall conform to latest relevant BIS specifications read with amendments, if any.
- c. For any such materials, if bidder is not able to obtain the specifications from KPTCL/BESCOM, the same will be furnished by BDA on specific request by the bidder within a reasonable time.

45. Test on equipments / materials wherever insisted by BDA shall be conducted in CPRI in the laboratory of BDA and test certificate to be issued by NABL/CPRI and other govt. certified agency. The Contractor should arrange for such tests and intimate BDA in 15 days advance. The unit to be tested shall be selected by BDA. Materials will be accepted/leared for installation only after inspection and submission of validity certificate by the contractor. All costs towards the above tests shall be borne by the Contractor.

46. Makes: The makes of the material shall be as follows:

66 KV UG cable : LS cable, Universal-unistar cable, KEI cable, KEC(RPG) cable.  
 11 KV 3 core U G Cable flat armoured dry-cured: Unistar, Universal, NICCON, CCI.  
 RMU'S: M E I, ABB. Sneider.  
 LT UG cable : SBEE, Unistar, Havells.  
 Insulated wires: PVC insulated copper wires of makes Finolex, polycab, SBEE, Anchor  
 LT & HT Insulators: BHEL, Jayashree.  
 Aerial Bunched Cables: XLPE insulated cable of the makes Unistar, CCI, Nicco, SBEE.

47. The Contractor shall strictly follow Line-clear procedures of KPTCL/BESCOM while executing and all safety precautions shall be followed strictly. Contractor shall be solely responsible of any kind to their staff or the general public and loss of public property during execution.
48. Statutory payment to KPTCL/ BESCOM / Electrical Inspectorate / BBMP etc., will be made at the site and shall observe all the precautionary and safety measures throughout the execution of work.
49. The contractor shall engage only qualified Engineer/ staff as per the requirement of IE R Inspectorate, Labour Commissioner and the workers shall be provided with all safety equipment throughout the execution of work.
50. BDA will not be responsible for any unforeseen incidents, mishaps, loss to any property or accidents to the personnel engaged by the contractor and the general public during execution.
51. Any dispute between the contractor and the staff/workers employed by the contractor shall be settled as per the prevailing labour laws. BDA will not be responsible to intervene in the same. BDA reserves the right to terminate the contractor due to any dispute between the contractor and the staff/workers employed by the agency as per the terms of the contract.
52. All released materials pertaining to KPTCL/BESCOM/BBMP shall be returned to respective authorities/stores.
53. Further LED luminaries shall conform to following Indian standards on LED.
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| 16101: 2012           | : General Lighting - LEDs and LED modules - terms and Definitions  |
| 16102(part 1): 2012   | Self- Ballasted LED- Lamps for general Lighting Services<br>Part 1 safety Requirements   |
| 16102(part 2): 2012   | Self- Ballasted LED- Lamps for general Lighting Services<br>Part 2 safety Requirements   |
| 16103(part 1): 2012   | EC Modules for general Lighting- Safety Requirements   |
| 15885(part 2/ Sec 13) | : 2012 Lamp Control Gear part 2 particular Requirements section 13 d.c or a.c Supplied Electronic Control gear for Led Modules |
| 16104 : 2012          | : D.C or A.C. Supplied Electronic Control gear for LED Modules - Performance Requirements                                      |
| 16105 : 2012          | : Method of Measurements of Lumen Maintenance of Solid - State Light (LED) Sources   |
| 16106: 2012           | : Method of Electrical and photometric Measurements of Solid -State Light (LED) products                                       |
| 16108: 2012           | : Photo biological Safety of Lamps and Lamp Systems  |