

Request for Proposals

Name of Project:“Design, Supply, Erection and Maintenance of minimum of 120 W LED Street lighting on Gachibowli Flyover and Service roads on either side of flyover on ESCO Model (DBOOT) for a period of 12 years after installation and commissioning period of one month”

Last of date of submission of Bids: 11-07-2011 up to 17:00 Hrs

Opening of qualification proposals: 11-07-2011 at 17:30 Hrs

Part-I: Instructions to Bidder - Pages: 2 to 30

Part-II: Draft Concession Agreement - Pages 31 to 41

Address:

The Chief General Manager (Tech),
Hyderabad Growth Corridor Limited,
2nd Floor, HMDA Complex,
Tarnaka, Secunderabad-7
Ph: 040-27002913.
Fax: 040-27003271.

Instructions to Bidder

A. Bidding process and general guidelines

1.1 Background / Introduction

- 1.1.1 Hyderabad Growth Corridor Ltd., a 100% Government of A.P owned entity created for implementation of Outer Ring Road project around Hyderabad city. A 4-lane Flyover with central median is constructed on Old Bombay Road at the starting point of ORR at Gachibowli, Hyderabad as a part of Outer Ring Road Project. The total length for which lighting with LED luminaires is proposed is approximately 1.45 Km. It is proposed to take up street lighting on Gachibowli Flyover portion and on Service Roads on both sides of flyover on ESCO Model (DBOOT) for a period of 12 years after installation and commissioning period of one month.
- 1.1.2 The scope of work is to Design, Supply, Erection and Maintenance of LED Street lighting on Gachibowli Flyover and Service roads on either side. The no. of street light poles to be erected are 81 Nos. on both sides of flyover portion with a fixed spacing of 30m using the same pole with two arms at different levels (i.e. with 162 Nos. of minimum of 120W LED luminaires).
- 1.1.3 An agreement will be drawn up between HGCL and the selected Bidder. The Company / Individual undertaking the project (ESCO Company) will be entitled only to fixed sums as quoted by him for the entire operations period towards execution and completion of the works and the remedying the defects.
- 1.1.4 The Bidder has to invest the necessary funds initially and will be repaid by the HGCL in 144 equal monthly installments.
- 1.1.5 HGCL will not be responsible for any delay in receiving the proposal and reserves the right to accept / rejects any or all applications without assigning any reasons thereof.

1.2 Eligible Bidders:

- 1.2.1 All bidders shall furnish the following details based on which eligibility will be decided.
- i. To furnish copy of PAN card
 - ii. Copy of latest income tax returns for the assessment year 2009-10 submitted along with proof of receipt.
 - iii. The bidder should produce the copy of Value Added Tax (VAT) registration with commercial tax department
 - iv. Latest VAT Clearance Certificate (OR) Latest Monthly Return for VAT.
 - v. Availability of key personnel in Statement-I.
 - vi. Information regarding any litigation, with Government during the last five years, in which the Tenderer is involved in (Statement - II).
 - vii. Annual Turn over certificate issued by Executive Authority or certified by CA along with Balance sheet having similar nature of work experience.
 - viii. Structural and organization details as per Annexure- III.
 - ix. Affidavit as per Annexure-IV.
 - x. Undertaking as per Annexure-V.
 - xi. Bid security for an amount of Rs.1.00 Lakh in the shape of D.D. drawn in favour of Managing Director, HGCL payable at Hyderabad.
- 1.2.2 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices.

1.3 Qualification of the Bidders:

- 1.3.1 The Bidder should be a manufacturer or an authorized dealer or Class I (Electrical Contractor) as per G.O.Ms. No. 94, dt.1.7.2003 of I & CA Dept and G.O.Ms. 130, Dt.22.5.2007 of I&CAD (PW: Reforms).
- 1.3.2 The bidder shall possess Grade "A/B" License issued by APELB or engage the services of licensed contractor.
- 1.3.3 Experience: The Bidder should have executed similar nature of work of street lighting costing not less than Rs.50.00 Lakhs in any one year during the last 5 years. The format of the experience certificate is indicated as Annexure-VI. The experience certificate is to be issued by

the client or the officer not below the rank of Executive Engineer / Project Engineer.

1.3.4 Certificates in support of existing commitments

1.3.5 Liquid assets in the form of solvency of Rs.150 Lakhs. (Format as Below)

FORM OF SOLVENCY CERTIFICATE BY BANK

I Managing Director / Manager / General Manager / Agent of Bank Ltd do here by certify that(here the Name and address of the Contractor) is solvent to the extent of Rs..... (Rupees) as disclosed by the information and record which are available with the afore-said Bank.

Date:

Place:

For the Bank
(Designation of the Officer authorized to sign)

1.4 Concession Period and Total Project Cost:

The Concession Period and the erection and commissioning period will be as per the data sheet.

1.5 Proposal Preparation Cost

The Bidder shall be responsible for all costs associated with the preparation of its proposal and its participation in the bidding process. HGCL will not be responsible nor in any way liable for such costs, regardless of the conduct or outcome of the bidding process.

1.6 Proposal Validity period

Proposal shall remain valid for a period not less than **90 days** from the Proposal Due Date. HGCL reserves the right to reject any Proposal, which does not meet the requirement.

1.7 Extension of Proposal Validity period

- 1.7.1 In exceptional circumstances, prior to expiry of the original Proposal Validity Period, HGCL may request the Bidders to extend the period of validity for a specified additional period. The request and the Bidders' responses shall be made in writing. HGCL reserves the right to reject the Proposal submitted by any Bidder who fails to extend the period of validity of its Proposal in line with the provisions of this clause.
- 1.7.2 The Bid Validity Period of the Successful Bidder shall be automatically extended till the date on which the Concession Agreement is signed and is in force.

1.8 Project Inspection and Site Visits

The Bidder, at the Bidder's own responsibility and risk is encouraged to visit to examine the site of Project and its surroundings and obtain all information that may be necessary for preparing the Proposal. The costs of visiting the site shall be borne by the Bidder. HGCL shall not be liable for such costs, regardless of the outcome of the Bidding process.

1.9 Bidders' Responsibilities

- 1.9.1 The Bidder is expected to examine carefully the contents of all the documents provided. Failure to comply with the requirements of RFP will be at the Bidders' own risk.
- 1.9.2 It would be deemed that prior to the submission of the Proposal, the Bidder has:
- (i) Made a complete and careful examination of requirements and other information set forth in this RFP;
 - (ii) Received all such relevant information as it has requested from HGCL; and
 - (iii) Made a complete and careful examination of the various aspects of the Project including but not limited to:
 - a. The Project site
 - b. Existing facilities and structures
 - c. The conditions of the access roads and utilities in the vicinity of the Project Site
 - d. Conditions affecting transportation, access, disposal, handling and storage of the materials.
 - e. Clearances obtained by HGCL for the Project and
 - f. All other matters that might affect the Bidder's performance under the terms of this RFP.

- 1.9.3 HGCL shall not be liable for any mistake or error or neglect by the Bidder in respect of the above.
- 1.9.4 Each Bidder shall submit only one Proposal in response to this RFP. Submission of more than one Proposal in response to this RFP by any Bidder shall be sufficient ground for disqualification of the Bidder. Similarly, in case any entity is part of more than one Bidder in response to this RFP (either a sole Bidder or a Consortium), this shall lead to disqualification of all the Bidders in which such an entity is participating.

2.0 Format and Signing of Proposal

- 2.0.1 The Bidder would provide all the information as per this RFP. HGCL reserves the right to evaluate only those Proposals that are received in the required format, complete in all respects and in line with the instructions contained in this RFP.
- 2.0.2 The Proposal should be submitted in Two Parts in 2 separate envelopes and put together in one single outer envelope.

"Part 1: Qualification Proposals" which will consist of details mentioned in Clauses 1.2 & 1.3 of this RFP.

"Part 2: Financial Proposal" which will consist of the details mentioned in Annexure-VII & VIII of this RFP.
- 2.0.3 The Bidder shall prepare and submit one original Proposal (comprising of Qualification Proposal and Financial Proposal).
- 2.0.4 The pages and volumes of each part of the Proposal shall be clearly numbered and stamped and the contents of the Proposal shall be duly indexed.
- 2.0.5 All documents should be submitted in a hard bound form (hard bound implies binding between two covers through stitching or otherwise whereby it may not be possible to replace any paper without disturbing the document) (spiral bound form, loose form, etc., will not be accepted), either singularly or with several documents bound together. The Proposal should not include any loose papers.
- 2.0.6 The Proposal shall be typed or printed. The Proposal shall be signed and each page of the Proposal shall be initialed by a person or persons duly authorized to sign on behalf of the Bidder.
- 2.0.7 The numbers contained in the financial Proposal (price bid format – monthly payment quoted) should be covered with a clear/transparent adhesive tape. Any signs of tampering will lead to the rejection of the financial Proposal.

2.0.8 The Proposal shall contain no alterations or additions, except those to comply with instructions issued by HGCL or as necessary to correct errors made by the Bidder, in which case such corrections shall be initiated by the person or persons signing the Proposal.

2.1 Sealing and Marking of Proposal

2.1.1 The Bidder shall seal each Part (Qualification Proposal and Financial Proposal) of the Proposal in separate envelopes duly marking each envelope as **“QUALIFICATION PROPOSAL”** or **“FINANCIAL PROPOSAL”** as appropriate.

2.1.2 The Bidder shall put two separate envelopes enclosing the Proposal (Qualification Proposal and Financial Proposal) in a single outer envelope and seal the envelope.

2.1.3 **The outer envelopes shall clearly bear the following identification. “Design, Supply, Erection and Maintenance of minimum of 120 W LED Street lighting on Gachibowli Flyover and Service roads on either side of flyover on ESCO Model (DBOOT) for a period of 12 years after installation and commissioning period of one month”**

2.1.4 Each of the envelopes shall indicate the complete name, address, telephone number (with country and city code) and facsimile number of the Bidder.

2.1.5 Each envelope shall be addressed to: Chief General Manager (Technical), Hyderabad Growth Corridor Limited, 2nd Floor, HMDA Complex, Tarnaka, Secunderabad 500 007.

2.1.6 HGCL reserves the right to reject any Proposal which is not sealed and marked as instructed above and HGCL will assume no responsibility for the misplacement or premature opening of the Proposal.

2.2 Proposal due date and Time

2.2.1 Proposal should be submitted before 17:00 hours Indian Standard Time (IST), on the Proposal Due Date i.e. 11-07-2011, as stated in the Schedule of Bidding Process, at the address given in Clause 2.1.5, in the manner and form as detailed in the RFP. Proposals submitted by either facsimile transmission or telex will not be accepted.

2.2.2 HGCL may, in exceptional circumstances and at its sole discretion, extend the Proposal Due Date by issuing as Addendum.

2.3 **Late Proposals**

2.3.1 Any Proposal received by HGCL after 1700 hours IST on the Proposal Due Date will not be accepted by HGCL.

2.4 **Modifications / Substitution of Proposals**

2.4.1 The Bidder may modify, substitute its Proposal after submission, provided that written notice of the modification, substitution is received by HGCL before or by the Proposal Due Date and Time. No Proposal shall be modified, substituted by the Bidder after the Proposal Due Date and Time.

2.4.2 The modification, substitution, or withdrawal notice shall be prepared and each page of the notice shall be stamped and signed. The notice shall be sealed, marked, and delivered in accordance with Clause 2.1, with the envelope being additionally marked "**MODIFICATION**", "**SUBSTITUTION**" as appropriate.

2.5 **Evaluation Process**

2.5.1 HGCL will open the qualification proposals at 17:30 hours IST on the date mentioned against the Date for Submission of Proposals in the Schedule of Bidding Process i.e. 11-07-2011 or on the extended Date for Submission of Proposals. Financial Proposals shall not be opened at this stage.

2.5.2 The Part-1 of Proposal shall be opened in the presence of Bidders' representatives, who choose to attend. Bidders' representatives attending the Proposal Opening shall register to evidence their presence.

2.5.3 The following information will be announced at the Proposal Opening and recorded:

- Bidder's names
- Names of Consortium Members

2.5.4 HGCL would subsequently examine qualification proposals in accordance with the criteria set out in Clause 1.2 & 1.3.

2.5.5 After the Proposal Opening, information relating to the examination, clarification and evaluation of Bids and recommendations concerning the Bid Award shall not be disclosed.

2.6 **Non-Discriminatory and Transparent Bidding Proceedings.**

HGCL shall ensure that the rules for the bidding proceedings for the Project are applied in a non-discriminatory, transparent and objective manner. HGCL shall

not provide to any Applicant information with regard to the Project or the bidding proceedings, which may have the effect of restricting competition.

2.7 Confidentiality

Information relating to the examination, clarification, evaluation, and recommendation for the Bidders shall not be disclosed to any person not officially concerned with the process. HGCL will treat all information submitted as part of Proposal in confidence and would require all those who have access to such material to treat the same in confidence. HGCL will not divulge any such information unless it is ordered to do so by any authority that has the power under law to require its disclosure.

2.8 Clarifications

To facilitate evaluation of Proposals, HGCL may, at its sole discretion, seek clarifications in writing from any Bidder regarding its Proposal. Notwithstanding anything contained in the RFP, HGCL reserves the right not to take into consideration any such clarifications sought by it for evaluation of the Proposal

2.9 Proposal Evaluation

2.9.1 The Concession will be awarded to the Bidder, who meets the criteria indicated for qualification proposals for undertaking the Project and offers to enter into a Concession Contract on the best financial terms with HGCL.

2.9.2 The Qualification Proposals will undergo evaluation as per the criteria indicated in Clauses 1.2 & 1.3 of RFP. If the Proposal is found to be satisfactory based upon the qualification evaluation criteria, the Proposal shall be subject to a financial evaluation. HGCL reserves the right to reject the Proposals, which do not meet the requirements of qualification stipulated in the RFP.

2.9.3 Financial proposals of those bidders whose qualification proposals gets rejected will be returned within a period of 28 days from the date of intimation of such rejection. The bid security shall be returned to unsuccessful bidders within a period of 30 days from the date of announcement of successful bidder. The bid security of second lowest bidder as determined on the opening of the financial proposal shall be returned by HGCL on the expiry of proposal validity period or the execution of the concession agreement, whichever is earlier.

3.0 Evaluation of Financial Proposals

3.0.1 HGCL will open Envelope 'FINANCIAL PROPOSAL' for the Bidders, who pass the Qualification stage, in the presence of the Bidder' representatives who choose to attend. HGCL will endeavour to open the Financial Proposals on the

date mentioned against the Date for Opening of Financial Proposals in the Schedule of Bidding Process.

3.0.2 Thereafter, Bidders will be ranked on the basis of the monthly payment quoted by them as per the Annex-VII of this RFP. The proposal with the lowest monthly payment will be ranked L1 and other proposals will be ranked subsequently.

3.0.3 In the event that two or more bidders have quoted same monthly payment Amount, HGCL may:

(i) Invite fresh Financial Proposals only from the Bidders quoting same monthly payment amount. However the fresh Financial Proposals should not have higher monthly payment amount than the one quoted by the Bidders in their original bids

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(ii) Take any such measure as may be deemed fit in its sole discretion, including annulment of the bidding process

3.0.4 HGCL may invite the lowest bidder for negotiations.

3.0.5 Upon acceptance of the monthly payment amount with or without negotiations, HGCL may declare the Successful Bidder.

3.1 Notification:

The Successful Bidder would be notified in writing by HGCL. HGCL shall endeavour to issue the Letter of Acceptance (LOA) to the Successful Bidder at the earliest.

3.2 HGCL's Right to accept or reject Proposal

3.2.1 HGCL reserves the right to accept or reject any or all of the Proposals without assigning any reason and to take any measure as it may deem fit, including annulment of the bidding process, at any time prior to execution of the Concession Agreement, without any liability or obligation for such acceptance, rejection or annulment.

3.2.2 HGCL reserves the right to invite fresh bids with or without amendment of the RFP at any stage without any liability or obligation for such invitation and without assigning any reason.

3.2.3 HGCL reserves the right to reject any Proposal if:

(i) At any time, a material misrepresentation is made or uncovered for a bidder or any of its members.

- (ii) The Bidder does not respond promptly and thoroughly to requests for supplemental information required for the evaluation of the Proposal. This would lead to disqualification of the Bidder / Member for all the Projects wherein the Bidder / Member (either as Sole applicant or as part of another consortium) is present. If the Bidder is a Consortium, then the entire Consortium would be disqualified/ rejected for all the projects it has applied for. If such disqualification/ rejection occurs after the Financial Proposals have been opened and the Successful Bidder gets disqualified/ rejected, HGCL reserves the right to take any such measure as may be deemed fit in the sole discretion of HGCL, including annulment of the bidding process. Notwithstanding the above, HGCL may debar / blacklist any of the Bidder(s) for their misleading or false representations in the forms, statements etc. for the period to be decided by HGCL.

3.3 Execution of Concession Agreement

- 3.3.1 The Successful Bidder shall execute the Concession Agreement within 15 days of receipt of LOA.
- 3.3.2 In case, the Concession Agreement does not get executed within 15 days of receipt of LOA, HGCL reserves the right to annul the bidding process and may invite fresh bids for the Project. In such a case the bid security submitted by the successful bidder shall be forfeited.
- 3.3.3 HGCL will notify other bidders that their proposals have been unsuccessful. The bid security of second lowest bidder shall be returned as per clause 2.9.3. Bid security of other bidders will be returned as promptly possible as, in any case not later than 30 days from the date of announcement of the successful bidder.

3.4 Performance Security

- 3.4.1 The Successful Bidder shall for due and faithful performance of its obligations during the Construction period furnish Performance Security by way of an irrevocable Bank Guarantee issued by a Bank in favour of Hyderabad Growth Corridor Ltd. as mentioned at the **Data Sheet**. The Successful Bidder shall provide the Performance Security within 30 days from the date of receipt of LOA but prior to execution of the Concession Agreement.
- 3.4.2 Failure of the successful bidder to comply with the requirement of Clause 3.4.1 shall constitute sufficient grounds for the annulment of the LOA and forfeiture of the bid security. In such an event, the HGCL results the right to take any such a measure as may be deemed fit in the sole discretion of HGCL including annulment of the bidding process.

3.5 Scope of Work:

3.5.1 Obligations of Bidder

The Bidder is required to carryout the following item of works during erection and commissioning period and maintain the same for a period of 144 months.

1. Supply and erection of hot dipped GI Octagonal / Conical poles of 7.5m height with two arms at different levels on same pole / double arm.
2. Supply and laying of 3.5 C x 35 Sqmm aluminium UG cable from Transformer to Feeder pillar box.
3. Supply and laying of 4C x 16 Sqmm aluminium UG cable pole to pole looping and circuits.
4. Supply and erection of GSM based feeder pillar box.
5. Supply and erection of minimum of 120W LED luminaires for achieving 30 LUX levels (Avg).
6. Providing of pipe earthing for FPB and poles.

3.5.2 Obligations of HGCL

- a) The cost towards obtaining power supply connection from APCPDCL including deposit if any to be made and the transformer charges will be borne by the HGCL. Liaisoning with the APCPDCL Authorities for obtaining the power supply connection is in the scope of the bidder. No amount will be paid towards liaisoning work.
- b) The energy charges to the extent of 120 W LED lighting for total fixtures of 162 Nos. as described in this RFP will be calculated taking the theoretical consumption of 12 Hrs per day at the prevailing unit rate of energy charges stipulated by APCPDCL. The monthly energy consumption units are arrived based on the theoretical consumption of 12 Hrs per day as indicated in the DATA Sheet. These monthly energy charges to the extent of theoretical consumption indicated in the DATA Sheet will be borne by the HGCL. Any increase over and above theoretical consumption units indicated in the DATA Sheet, the energy charges for such increase in units will be calculated at the prevailing unit rate of energy charges stipulated by APCPDCL and will be deducted from the monthly payments to be paid.

3.6 Technical Specifications:

Detailed technical specifications and the approximate estimated quantities are indicated in Annexure. The Bidder has to indicate the breakup details of amount for each of the item. The breakup will be the basis for arriving at the cost for any change of scope.

3.7 Details of road widths

Total Flyover width	: 15.50m
Service road width	: 11.00m
Length of Flyover where lighting is proposed on either side on crash barrier	: 890m
No. of poles with brackets at different levels	: 62 Nos.
Length of flyover portion where lighting is proposed in the median	: 542 m
No. of poles with double arm bracket	: 19 Nos.
No. of LED luminaires	: 162 Nos

3.8 CODES AND STANDARDS

All standards, specifications, and codes of practice referred to herein shall be the latest edition including all applicable official amendments and revisions as on date of bid opening. In case of conflict between this specification and those (IS codes, standards etc.) referred to herein, the former shall prevail. All work shall be carried out as per the following standards & codes.

List of Codes and Standards

IS : 5	Colour for ready mixed paints & enamels
IS : 202	Cast Iron accessories
IS : 226	Structural steel (standard quality)
IS : 280	Mild steel wires for electrical wiring installation
IS : 694	PVC insulated cables upto 1100 V
IS : 732	Code of practice for electric wiring installation upto 650V
IS : 800	Code of practice for general construction in steel
IS : 875	Wind loads
IS : 1161	ERW Pipes
IS : 1239	Mild Steel tubes
IS : 1255	Code of practice for installation and maintenance of electric cables
IS : 1544	1.1 KV grade PVC Cables
IS : 1777	Industrial luminaires with metal reflectors

IS : 1913	General and safety requirements for luminaires
IS : 1944	Code of practice for lighting
IS : 2062	Steel grades
IS : 2147	Degree of protection provided by enclosures for LT switch gear
IS : 2149	Luminaires for street lighting
IS : 2208	HRC cartridge fuse links upto 650V
IS : 2551	Danger notice plates
IS : 2629	Recommended practice for hot-dip galvanizing of steel
IS : 2633	Methods of testing uniformity of zinc coating
IS : 2959	Contactors for voltage not exceeding 1000 V AC
IS : 3043	Code of practice for earthing
IS : 3202	Climate proofing of electrical equipments
IS : 3961	Recommended current ratings for PVC insulated cables
IS : 4012	Dust proof electrical lighting fittings
IS : 4013	Dust tight electrical lighting fittings
IS : 4064	Air break switches for voltage not exceeding 1000 V AC
IS : 4237	General requirement of switch gear not exceeding 1000 V AC
IS : 4983	HDPE Pipes
IS : 5077	Decorative lighting outfits
IS : 5216	Recommendations on safety procedures and practices in electrical work
BS: 5649	Lighting Columns
IS : 5831	PVC insulation and sheath of electric cables
IS : 6616	Ballasts for high-pressure mercury vapour lamps
IS : 6665	Code of practice for industrial lighting
IS : 6875	Specification of control switches for voltage not exceeding 1000 V AC
IS : 7098	1.1 KV grade XLPE Cables
IS : 8130	Conductors for insulated electric cables
IS : 8623	Factory built assemblies of switchgear upto 1000 V AC
IS : 8828	MCBs for AC circuits not exceeding 1000 V AC
IS : 9224	Low voltage fuses
IS : 10118	Code of practice for selection of switchgear and control gear
IS : 10322	Luminaires
IS : 10810	Methods of tests for cables
	National Electrical Code
	Indian Electricity Rules
	Indian Electricity Act

3.9 GENERAL SPECIFICATIONS OF MAJOR SUPPLY ITEMS

The lighting package shall include the following major supply items:

- i) Street lighting feeder pillar (SLFP) with Micros process based timer
- ii) Galvanized Conical / Octagonal pole
- iii) Street Lighting luminaires and lamps
- iv) L.T. Armoured Cable
- v) HDPE pipe
- vi) Earthing system

4 STREET LIGHTING FEEDER PILLAR (SLFP)

- 4.0.1 SLFP shall be suitable for 415 V, 3 phase, 4 wire, 50 Hz supply and shall be outdoor type with canopy and shall be free standing floor type.
- 4.0.2 SLFP shall be provided with incoming & outgoing MCCB / MCB of appropriate rating and in desired quantity depending on total no. of circuits in use. Outgoing shall have at least one spare circuit all the time.
- 4.0.3 SLFP shall be made up of CRCA sheet steel and shall be dust and vermin proof providing a degree of protection of IP 55. The thickness of sheet steel enclosures shall be 2 mm minimum for load bearing and 1.6 mm for other members.
- 4.0.4 Busbars will be made up of aluminium, colour coded for easy identification and of appropriate size.
- 4.0.5 Doors shall be provided with all round neoprene gaskets. The incomer switchgear shall have interlocking mechanism so as to prevent opening of the door when the switch is ON and to prevent closing of the switch when the door is not fully closed. However, a device for bypassing the door interlock shall be provided to enable the operation of the switch with the door open, when necessary, for examination / maintenance.
- 4.0.6 All accessible live connection/metals shall be shrouded and it shall be possible to change individual fuses, switches, from the front of the boards/panels without any danger of contact with live parts.
- 4.0.7 Adequate interior cabling space and suitable removable cable gland plate (min. 3 mm thickness) plates shall be provided for bottom entry of cables through glands. Necessary number of glands to suit the required cable sizes shall be provided. Cable glands shall be double compression type made of chrome-plated brass.
- 4.0.8 Every SLFP will have LED type 'SUPPLY ON" indicating lamps. Indicating lamps shall be of the clustered LED type and low watt consumption. Lamps shall be provided with series resistors.
- 4.0.9 Earth bus of 50x6 GI flat with zinc plated bolts and nuts shall be provided in the bottom of the panel.
- 4.1.0 The SLFP shall be provided with individual labels with equipment designation / rating. Also the boards shall be provided on the front with a label engraved with the designation of the SLFP. Labels shall be made of non-rusting metal or 3 ply lamicaid or engraved PVC.

- 4.1.2 Internal wiring of the panel shall be done using flexible copper cables of appropriate sizes. All the wires shall be numbered and ferrules shall be provided for easy identification.
- 4.1.3 Proper clip-on stud type terminals of appropriate rating shall be provided for termination of incoming as well as outgoing cable inside the SLFP.
- 4.1.4 Inside the door of lighting panels a single line circuit diagram / description shall be fixed for ready reference.
- 4.1.5 Painting: All sheet steel enclosures of panels will be chemically cleaned rinsed, phosphated & dried. After the treatment steel surfaces will be given two coats of primer & finished grey enamel paint or powder coating of shade 631 of IS - 5. Coating thickness shall be minimum 50 microns.

5.1 Hot Dip Galvanized Conical / Octagonal Pole:

- 5.1.1 The Conical Poles shall be designed to withstand the maximum wind speed as per IS 875. The top loading i.e. area and the weight of fixtures are to be considered to calculate maximum deflection of the pole and the same shall meet the requirement of BSEN-40-3-1 COLM. 2000, pr EN-40-3-3.
- 5.1.2 The pole shaft shall have circular cross section and shall be continuously tapered with single longitudinal welding. There shall not be any circumferential welding. The welding of pole shaft shall be done by Submerged Arc Welding (SAW) process.
- 5.1.3 All conical pole shafts shall be provided with the rigid flange plate of suitable thickness with provision for fixing 4 foundation bolts. This base plate shall be fillet welded to the pole shaft at two locations i.e. from inside and outside. The welding shall be done as per qualified MMAW process approved by Third Party Inspection agency.
- 5.1.4 The conical Poles shall have hinged door of approximate 500 mm length at the elevation of 500 mm from the Base plate. The door shall be vandal resistance and shall be weather proof to ensure safety of inside connections. The door shall be flush with the exterior surface and shall have suitable locking arrangement. There shall also be suitable arrangement for the

purpose of earthing. The pole shall be adequately strengthened at the location of the door to compensate for the loss in section.

5.1.5 Material

Conical Poles	-	HT Steel Conforming to grade S355JO.
Base Plate	-	Fe 410 conforming to IS 226 / IS 2062
Foundation Bolts	-	EN.8 grade

5.1.6 The welding shall be carried out conforming to approved procedures duly qualified by third party inspection agency. The welders shall also be qualified for welding the conical shafts.

5.1.7 The Conical Poles shall be in single section (upto 12 mtr). There shall not be any circumferential weld joint.

5.1.8 The poles shall be hot dip galvanised as per IS 2629 / IS 2633 / IS 4759 standards with average coating thickness of 70 micron. The galvanizing shall be done in single dipping.

5.1.9 The Conical Poles shall be bolted on a pre-cast foundation with a set of four foundation bolts for greater rigidity.

5.1.10 The galvanized mounting bracket shall be supplied along with the Conical Poles for installation of the luminaries.

5.1.11 The pole manufacturing & galvanizing unit shall be ISO 9001: 2000, ISO 14001 & OHSAS 18001 certified to ensure consistent quality & environmental protection.

5.1.12 Pole testing facility The manufacturing unit shall have in-house pole testing facility for validation of structural design data .The pole testing facility shall confirm to BS EN 40-3-2-2000 part 3-2.

5.2 LED STREET LIGHT LUMINAIRES AND LAMPS

Specifications given below pertain to LED street light luminaries. Bidders shall achieve average of 30 LUX & uniformity,

		Average	Uniformity (Min / Avg)
1.	4 Lane Road	30 LUX	0.4
2.	Service Road	30 LUX	0.4

The maintenance factor shall not be more than 0.8.

5.3.1 LED Street Lighting Luminaries

5.3.1.1 General Requirement

- a) Mains Voltage Range: 100 V to 280 V , 50 Hz.
- b) Rated Wattage of Luminaires: Minimum of 120 Watts.
- c) Colour of LED: Cool White having Colour temp within 5700K to 7000 k.
- d) Mounting system: Pole mounting suitable for 58 mm dia pipe.
- e) Environment Suitability: Luminaire shall stand Max 50°C ambient & working humidity of 10 to 90 %

5.3.1.2 Mechanical Requirements

- a) The Housing shall be made in single piece from Al dia Cast including the cooling fins. The Housing shall have two compartments, one for LED arrays & other for LED drivers & Mains cable entry. The Housing shall be fitted with Two separate cover Frames, made from Al die cast. One Frame shall be fitted with Glass for Lamp compartment & second one shall cover the Control gear compartment. Both Cover frames shall be provided with specially designed Extruded gaskets to ensure IP65 degree of protection for both, Lamp compartment & Control gear compartment.
- b) The Complete luminaire including lamp compartment & control gear Compartment shall have IP 65 degree of protection. All Hardware's shall be of SS. Maintenance shall be carried out by hinging the respective Cover frames for maintenance of MCPCBs & Drivers.

5.3.1.3 LED Specification

- a) LEDs make shall be preferably CREE / GE / Philips Lumileds / Nichia / Osram. LED shall be surface mounted type Duly soldered to MCPCB by Reflow system. Solder used shall be ROHS compatible for environment friendly.
- b) Each LED Wattage: as per manufacturers recommendation.
- c) LED CRI: Shall be > 0.70. LED Efficacy shall be minimum 100 lm @ 350mA drive current to meet required LUX level.
- d) Thermal Resistance ($^{\circ}\text{C}/\text{W}$) shall not be more than 10 Deg/W for Better Thermal Management. Thermal pad of LED shall be isolated from Electrical path & shall be directly soldered to MCPCB for efficient heat dissipation.
- e) Max LED Junction Temperature 150 Deg C rating for better capacity to handle heat.
- f) Color Binning should preferably comply to existing ANSI bins. Die source of LED should be from Single Die source for Better Optical efficiency. White Point Stability of LED should be within 4 McAdam Step with testing being done preferably at LED maximum drive current.
- g) High Temperature Operating Level (HTOL) test to be carried out at maximum rated current of LED.
- h) Wet High Temperature Operating Level (WHTOL) Test to be carried out at maximum rated current of LED.
- i) LEDs should adhere to Moisture Sensitivity Level (MSL) level 1 criteria.

5.3.1.4 Optics Requirements

- a) The Secondary Optics shall consist of Lenses fitted on each LED made of PMMA. There shall be no use of external reflector. Beam pattern shall be Asymmetrical & shall have $85^{\circ} * 135^{\circ}$ Deg spread.
- b) Mechanical and Optical Centre of LEDs shall be preferred for enhanced optical efficiency of secondary optics.

5.3.1.5 Electronics Gear system

- a) Electronic Driver shall be of Constant Current type , with DC supply not more than 48 V. Power Factor shall be > 0.90 . Shall be provided with Electronic Short circuit protection & there shall not be any external Fuse. There shall be over voltage & Over current protection. There shall be protection against Mains transients. THD shall be less than 30 %.
- b) Internal wiring shall be done with Silicone coated wires for high heat withstanding

5.3.1.6 Wiring of the luminaries

The wires for connection from terminal plate of the pole to the fixtures shall be 1100 V, minimum 3Cx2.5 sq mm PVC insulated, unarmoured having flexible copper conductors. The wires shall conform to the applicable IS.

5.4 L.T. ARMOURED CABLE

General specifications of the armoured cable are given below. These shall conform to the relevant IS.

- 5.4.1 The cable shall be of 1.1 KV grade.
- 5.4.2 The material of the conductor shall be aluminium and conductor shall be sector shaped.
- 5.4.3 The material of insulation shall be XLPE as per IS 7098 (Part 1).
- 5.4.4 The inner sheath shall be PVC tapped.
- 5.4.5 The armouring shall be made up of G.S. strip.
- 5.4.6 The individual cores of the cable shall be red, yellow, blue and black.
- 5.4.7 The cable shall be supplied in drum lengths.
- 5.4.8 The cable should conform to all provision of type tests, acceptance tests and routine tests as per relevant IS. Contractors shall submit the TCs.
- 5.4.9 The cable shall be terminated with crimping tool using aluminium lugs and double compression glands.

5.5 EARTHING SYSTEM

All equipment of the lighting system shall be earthed as per relevant Indian Standards. General specifications of earthing for pole, SLFP & equipments are given below.

5.5.1 Each pole shall be earthed using 1 no. 20mm dia., 1.5 m long MS rod. The connections between the earthing stud inside pole and the electrode shall be done with 8 SWG GI wire.

5.5.2 SLFPs and equipments each shall be earthed with 2 nos. - 40mm dia., 2.5 m long GI pipe. The connections between the earthing stud and the electrode shall be done with 25X6 GI strips.

DATA SHEET

Name of the Project:

“Design, Supply, Erection and Maintenance of LED Street lighting on Gachibowli Flyover and Service roads on either side of flyover on ESCO Model (DBOOT) for a period of 12 years after installation and commissioning period of one month”

Para 1.4	Erection and Commissioning Period:	1 month
Para 1.4	Concession Period:	12 years (after erection & commissioning period)
Para 1.4	Total Cost of the Project:	Rs.97.62 Lakhs
Para 3.4	Performance Security:	Rs.5.00 Lakhs
3.5.2 (b)	Prevailing unit rate of energy charges stipulated by APCPDCL:	Rs.4.18 / kwh
3.5.2 (b)	Theoretical consumption of energy units per month	162 Nos. x 120 W x 12 Hrs / day x 30 days = 6,998 kwh or say 7000 kwh

STATEMENT – I

Availability of Key Personnel:

Qualification and experience of Key Personnel proposed to be deployed for execution of the Contract.

Sl. No	Name	Designation	Qualification	Total Experience	Working with the Tenderer since.
1	2	3	4	5	6

Signature of the Tenderer

STATEMENT - II

Information on litigation history in which Tenderer is the Petitioner.

S. No	Case No. / Year	Court where filed.	Subject Matter / Prayer in the case.	Respondents i.e., SE / CE	Present Stage.
1	2	3	4	5	6

Signature of the Tenderer

ANNEXURE-III

STRUCTURE AND ORGANIZATION

1	Name of Bidder	:	
2	Status	:	
	Individual Contractor	:	
	Sole Proprietary Firm	:	
	Firm in Partnership	:	
	Private Limited Company	:	
	Public Limited Company	:	
3	Head office / Registered office address with phone / Fax Number / E-mail ID	:	
4	Local office (if any) address with phone / Telex / Fax Number	:	
5	Main line of Business [such as General Engineering Contractor / Electrical Engineering Contractor etc., should be specified]	:	
6	Name, position, status, capacity, etc., of the key personnel / [directors of the company attach organization chart showing the structure of the company / firm]	:	
7	Name, capacity and address of the signatory who has signed the qualification application. Attested copy of authorization issued (either by power of attorney or as per articles of partnership deed / memorandum of association) in favour of the signatory to sign the qualification application price tender / agreement should be appended.	:	

ANNEXURE-IV

AFFIDAVIT

(to be furnished in a Twenty Rupees Non-Judicial Stamp Paper duly certified by Notary Public)

1. I /We the undersigned solemnly declare that all the statements made in the documents, records, etc., attached with this application are true and correct to the best of my / our knowledge.
2. I / We the undersigned do hereby certify that neither my / our firm / company nor any of it's constituent partners have abandoned any work / works of similar nature and magnitude in India, during the last "Five" years.
3. I / We the undersigned do hereby certify that any of the contracts awarded to me / us has not been terminated rescinded, due to breach of contract on my / our part, during the last "Five" years.
4. I / We the undersigned authorize(s) and request any bank / person / firm / corporation / Government Departments to furnish pertinent information deemed necessary and requested by the Tender Inviting Authority to verify the statement made by me / us or to assess my / our competence and general reputation.
5. I / We, the undersigned, understand (s) that further qualifying information / clarifications on the statement made by me / us may be requested by the Tender Inviting Authority and agree (s) to furnish such informatory / clarification within "THREE" days from the date of receipt of such request from the Tender Inviting Authority.

Dated signature of Applicant with Seal:

(To be signed by the officer authorized by the Firm / Company to sign on behalf the Firm / Company with company's seal)

Note:- In case of sole proprietary concern, affidavit should be signed only the sole proprietor.

(Title of the officer)

(Title of the firm / company) (Date)

The above named deponent has understood the contents well and solemnly and sincerely declared and affirmed by the deponent in my presence at _____ and signed before me on this day of _____

(Seal)

(Signature of the Notary Public)

ANNEXURE "V"

UNDER TAKING

(To be furnished in a Twenty Rupees Non-Judicial Stamp paper with the Qualification Application and certified by the Notary Public)

I / We the applicant do hereby undertake that I / we will abide by the terms and conditions if any, modified by the Tender inviting Authority in the contract conditions subsequent to submission of Qualification Annexure / price tender or subsequent to execution of the Agreement.

Place:

Date:

Signature of the bidder with Seal

The above named deponent has understood the contents well and solemnly and sincerely declared and affirmed by the deponent in my presence at and signed before me On this day of

Place:

Date:

Signature of the Notary Public with Seal

ANNEXURE – VI

DETAILS OF SIMILAR WORK(S) IN ANY ONE OF THE PRECEDING FIVE YEARS (2006-07, 2007-08, 2008-09, 2009-10 & 2010-11) FOR GOVERNMENT DEPARTMENT / BOARD / GOVERNMENT UNDERTAKING ETC.,

Name of the Bidder:

S. No.	Type and Nature of work	Location Village / Town / Taluk / District / State	Name and designation of the employer owner	Value of work as per Agreement Rs.	Agreement Number	Stipulated period of contract as per Agreement	Date of commencement of the work	Date of actual completion of work	Reasons for delay in completion (if any)	Actual value of work executed as per final payment	Quality of work done
1											
2											
3											
4											
5											
6											
7											

Note:

- a) Certificate issued by the Engineer – in – Charge (not below the rank of Executive Engineer / Project Engineer) of each of the work is to be appended.
- b) *Please indicate whether the work is “Satisfactorily Completed”.

Dated Signature of the applicant with seal

ANNEXURE-VII
Financial Proposal
(On the letterhead of the Bidder)

Name of the Project:

“Design, Supply, Erection and Maintenance of minimum of 120 W LED Street lighting on Gachibowli Flyover and Service roads on either side of flyover on ESCO Model (DBOOT) for a period of 12 years after installation and commissioning period of one month”

Price Bid format for ESCO Model (DBOOT) on equal monthly payment basis

Monthly payment Amount

Monthly Payment Amount = Rs. _____ In figures (Rupees in words)

..... Name of the Bidder / Consortium

..... Signature of the Authorized Person

..... Name of the Authorized Person

Bidder to note:

- The Financial Proposal is to be signed by the authorized person of the Bidder (In case of a Consortium, as per a valid power of attorney given by all members of the Consortium)
- Bidders should specify the fixed Monthly Payment Amount, to be received from HGCL throughout the Operations Period of 144 months (Monthly Payment Amount) in the format set out above clearly indicating the amount in both figures and words in Rupees.

**ANNEXURE-VIII
(SCHEDULE – A)**

Name of Project: “Design, Supply, Erection and Maintenance of minimum of 120 W LED Street lighting on Gachibowli Flyover and Service roads on either side of flyover on ESCO Model (DBOOT) for a period of 12 years after installation and commissioning period of one month”

- 1) The quantities given here are those upon which the total cost of the project is based, but they are subject to alternations, omissions, deductions or addition as provided for in the conditions of this contract and do not necessarily show the actual quantities of work to be done.
- 2) The description given in Schedule - A are to indicate the item of work only and need not be construed as full specification. The monthly payment amount quoted shall be for carrying out the item as per standards and specifications described in the relevant specifications.

The bidders are requested to indicate their assessed rates and amounts in the respective columns and the estimated amount.

S. No	Approximate Qty in figures / words	Description of work	Specification No. / APSS/BIS/ MORT&H.	Unit in figures / works	Estimated Rate in figures / works	Amount (in Rs.)
1	2500 (Two Thousand Five Hundred)	Supply and laying of 4C x 16 Sqmm aluminium cable including excavation of earth and back filling the earth after laying the cable and placing of bricks and sand on cable etc., complete for finished item of work. And as Directed by engineer-in-Chrage (Makes CCI/ Universal/ Nicco/ Polycab)	Spl Specn.	1 RMtr		
2	150 (One Hundred and Fifty)	Supply and laying of 3.5C x 35 Sqmm aluminium cable including excavation of earth and back filling the earth after laying the cable and placing of bricks and sand on cable etc., complete for finished item of work. And as directed by engineer-in-Chrage (Makes: CCI/ Nicco/ Universal/ Polycab)	- do -	1 RMtr		
3	2 (Two)	Supply of feeder pillar box with Micro process based controlled system with 14 SWG CRCA sheet with 63A switch gear with necessary MCB's, MCCB, timer, connectors and provision for energy meter etc., complete for finished item of work and as directed by Engineer-in-charge (Makes of Switch Gear: L&T, GE, Schnider and MDS)	- do -	1 No. Each		
4	162 (One Hundred and Sixty Two)	Supply of 120W LED Street light luminaire integral with pressure die-cast alluminium housing having with IP65 protection complete for finished item of work and as directed by Engineer-in-Charge. (the LED make will be OSRAM / CREE / NICHIA/ GE/ Philips)	- do -	1 No. Each		

5	81 (Eighty One)	Fabrication, Transportation and supply of hot-dip galvanized Octagonal / Conical Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with Bakelite sheet and MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for 7.50 Mtrs height Pole having dimensions Bottom 130 mm., Top 70mm with 3mm thick, base plate 220 x 220 x 12mm and 4 Nos. of M20 x 700 long 'J' bolts along with template for finished item of work and as directed by Engineer-in-charge of Makes Bajaj / Aster / TRANSRAIL / Surya.)	- do -	1 No. Each		
6	162 (One Hundred and Sixty Two)	Supply and making of end termination for 4C X 10 Sqmm Al. UG cable complete for finished item of work and as directed by Engineer-in-Charge.	- do -	1 No. Each		
7	4 (Four)	Supply and making of end termination for 3.5C X 35Sqmm Al. UG cable complete for finished item of work and as directed by Engineer-in-Charge.	- do -	1 No. Each		
8	62 (Sixty Two)	Fabrication, Transportation and supply of 1.50 Mtr length Single Arm Bracket made with MS galvanized 40mm / 50mm dia Pipe complete for finished item of work and as directed by engineer-in-charge.	- do -	Each 1 No. Each		
9	62 (Sixty Two)	Fabrication, Transportation and supply of 1.50 Mtr length special type suitable at middle of the pole Single Arm Bracket made with MS galvanized 40mm / 50mm dia Pipe complete for finished item of work and as directed by Engineer-in-Charge.	- do -	1 No. Each		
10	19 (Nineteen)	Fabrication, Transportation and supply of 1.50 Mtr length Double Arm Bracket made with MS galvanized 40mm / 50mm dia Pipe complete for finished item of work and as directed by Engineer-in-Charge.	- do -	1 No. Each		
11	81 (Eighty One)	Erection charges for 7.5/ 9.0 mtr G.I octagonal pole including excavation earth and erection on base plate 290 x 290 x 16mm thick duly providing 4 Nos. foundation bolts with nuts with providing M20 CC work vibrated concreting mixing with necessary steel (38 Kgs) reinforcement as directed by Engineer-in-Charge including all labour charges and cost and conveyance of materials complete for finished item of work and as directed by Engineer-in-Charge.	- do -	1 No. Each		
12	4 (Four)	Making of independent earthing with 40mm dia GI earth electrode including civil works and allied required materials as required complete for finished item of work and as directed by Engineer-in-Charge.	- do -	1 No. Each		
13	30 (Thirty)	Supply and running of 25 x 3mm GI Strip including cost of all accessories and labour charges etc., complete for finished item of work and as directed by Engineer-in-Charge.	- do -	1 Rmt		

DRAFT CONCESSION AGREEMENT

This agreement, made on the _____, by and between the Hyderabad Growth Corridor Ltd., (hereinafter referred to as "HGCL") of the one part and M/s. _____ having its registered office _____ India (hereinafter referred to as _____) of the other part. Both HGCL and _____ shall collectively be referred to as "PARTIES".

Whereas the HGCL is desirous to **"Design, Supply, Erection and Maintenance of minimum of 120 W LED Street lighting on Gachibowli Flyover and Service roads on either side of flyover on ESCO Model (DBOOT) for a period of 12 years after installation and commissioning period of one month"** (hereinafter referred to as "PROJECT") and has called for bids from interested bidders through the Expression of Interest.

And whereas _____ has participated in the tender and HGCL has evaluated and accepted the bid by _____ for the Project and HGCL has issued a work order dated: _____ to _____ for the implementation of the Project.

Now this agreement witness as under:

1. In this agreement, words and expressions shall have the same meanings as are respectively assigned to them in the conditions of this agreement hereinafter referred to, and they shall be deemed to form and be read and constructed as part of this agreement.
2. **Definitions:**
 - a. "Bid" means offer submitted by bidders in the Tender.
 - b. "EEM" means Energy Efficiency Measure involves installation of energy saving systems like LED lights, power savers, energy management tools etc.
 - c. "Energy" in the context of this agreement means electrical energy and may also be referred to as "Power".
 - d. "Energy Audit" means an inspection, survey and analysis of energy flows.
 - e. "ESCO" means Energy Service Company.
 - f. "ESCO Basis" means a model of business where an Energy Service Company invests in a energy efficiency project and repays itself through energy savings achieved.
 - g. "Kilowatt" means a unit of energy or power equal to 1000 Watt which is also referred to as "KW"
 - h. "Kilowatt-hour" means a unit of energy equivalent to one Kilowatt of energy expended in one hour of time which is also referred to as "kwh"
 - i. "LED" means Light Emitting Diodes.
 - j. "M & V" means measurement and verification.
 - k. "NPV" means the Net Present Value of an investment by using a discount rate and a series of future payment sand income.
3. The following documents shall be deemed to form and be read and constructed as part of this Agreement, viz.,
 - a. The Bid Document vide Expression of Interest on Dt: _____
 - b. The Financial Bid
 - c. Work order issued by HGCL to _____, dated: _____
4. This Agreement supersedes all prior discussions, representations, understandings, agreements, both written and oral, among the parties with respect to Clause 3 above.
5. As per the condition of the work order referred to in Clause 3c, _____ has submitted a Demand Draft drawn in favour of "Hyderabad Growth Corridor Ltd." vide D.D. No. _____ of _____ Bank, Hyderabad for an amount of Rs. _____ (Rupees _____). However, HGCL shall release this amount upon production of a performance bank guarantee by _____ for

the same amount. The performance bank guarantee shall be renewed every three years till end of the concession period.

6. In consideration of the payment to be made by HGCL to _____ as hereinafter mentioned, the HGCL hereby covenants with _____ to implement the project in conformity of all aspects with the provisions of this Agreement.
7. The HGCL hereby covenants to pay the _____ in consideration of the execution and completion of the works and the remedying the defects wherein the Contract Price or such other as may become payable under the provisions of this contract at the times and in the manner prescribed by this contract.
8. This agreement is constructed, based on terms mutually discussed and agreed upon, as ESCO contract. The cost of implementation will initially be financed by the _____ and the HGCL will pay to the _____ in monthly installments as per the payment schedule.
9. HGCL hereby appoints _____ for the execution of the said project.
10. The contract period for the project is 12 years commencing from the date of completion of installation of LED lights or 1 month from the date of agreement, whichever is earlier.
11. _____ shall invest the necessary funds initially and will be repaid by the HGCL through energy savings in installments as defined in Table.
12. During the contract period, _____ shall provide warranty and maintain all the LED street lights provided by him.
13. The prevailing power tariff is Rs.4.18 per unit (kwh) and is subjected to change as per the APCPDCL tariff notifications.
14. The risk of theft, damage and natural calamity and the cost of any repairs / replacements required on this account during the installation phase and contract period is with the Concessionaire. The Concessionaire will get the insurance done for theft and damage in its name at his own cost.

15. Scope of Work

- a. Getting statutory approvals if required for the EEMs. HGCL will provide any necessary assistance and coordination in this regard.
- b. The Concessionaire shall ensure adequate safety standards in working by his employees and shall be responsible for observance of all statutory obligations pertaining to persons employed by him. HGCL will not be liable for such matters under the Concessionaire's responsibility.
- c. The Concessionaire only may execute the work.
- d. ON / OFF timers is to be provided.
- e. Concessionaire to create necessary infrastructure for maintenance of installed LED lights during the contract period. Concessionaire to be responsible for removal / reinstallation of defective / repaired LED lights at pole and to maintain other activities related to street

light network i.e. replacement of faulty cables, energy meters, main lines, etc.

- f. Concessionaire shall be responsible for the continuity of supply, operation and maintenance of the LED street lights, cables, switches, energy meters, etc.
- g. Due to constant improvement in EEMs, Concessionaire shall be free to install latest and most suitable EEMs as available at that time during the contract period.

16. Operating Conditions

- a. The HGCL acknowledges that the modifications proposed by Concessionaire will be undertaken with objective of saving energy and will not necessary improve the facilities' operating parameters such as LUX levels for lighting system.
- b. Subject to the performance level not going down, the EEMs will be chosen as to MAXIMIZE THE SAVINGS. Such selection will be based on OBSERVATIONS during the trial /baseline evaluation and may be updated as required.
- c. Concessionaire on its part warrants that the improvements will not under normal operating conditions cause deterioration of any of the existing operating parameters as earlier – prior to implementation of the EEMs.
- d. These parameters may be relaxed with the HGCL's concurrence during periods of the day when a lower service level is acceptable.

17. Obligations of the Concessionaire

- a. Carry out all necessary implementation activities in its scope and assume full technical responsibility for the EEMs.
- b. Responsible for the street lights installed by it including operation and maintenance.
- c. Ensure observance of all applicable safety regulations.
- d. Develop and achieve a project schedule.
- e. Organize the work so as to minimize interference with the HGCL routine operations.
- f. Ensure compliance by its staff with the applicable safety regulations.
- g. Rectify and make good any damage to facilities caused by the Concessionaire in the course of implementing the improvements.
- h. Provide manuals and training to the HGCL's staff for proper operation and maintenance of the EEMs.
- i. Provide warranty maintenance of the EEMs provided.
- j. Report to the HGCL any abnormal system or load conditions.
- k. To make the technically nonfunctioning EEMs functional at their own material and manpower cost till the end of contractual period.
- l. Follow the minimum wages act, rules laid down by the Labour Commissioner, Electrical Inspectorate and Govt. of Andhra

Pradesh. The HGCL shall not be party to any dispute arising out of this contract for these issues.

- m. Furnish list of skilled workers (ITI qualified electrician / wiremen trade) who are engaged for the street light maintenance.
- n. Issue identification cards and to maintain uniform.
- o. Submit a daily report about complaints and circuit on / off progress to the HGCL Authorities. The supervisor / office in-charges shall be in close contract with concerned authorities.
- p. The Concessionaire shall not permit or allow any advertisement / hoarding or other commercial activity on the street light pole / project site and shall not be entitled to charge, collect or receive any sums on account of any such activity.

18. Obligations of the HGCL

- a. Immediately on signing of this agreement.
 - i. Arrange for execution of the tripartite ESCROW Agreement by their bankers and themselves with Concessionaire.
 - ii. Arrange to open the ESCROW Account with the Bank and for regular deposit of the designated amount into the account.
- b. Work with Concessionaire to ensure the co-operation of the O&M staff for the facilities and other departmental employees in carrying out the project activates.
- c. Provide, at his expense, the electrical energy required for performance of the work.
- d. To pay monthly energy consumption charges to APCPDCL to an extent of 7000 kwh at the prevailing unit rate stipulated by APCPDCL. The energy consumption charges for the units over and above 7000 kwh will be arrived based on the prevailing unit rate of APCPDCL for that period and will be deducted from the monthly payments of the Concessionaire.

18.1 Special Rights of HGCL:

HGCL is having the rights to allow for advertisement / hoarding on the street light pole / project site and entitled to charge, collect and receive any sums on account of any such activity.

19. Prices, Billing and Taxation

- a. The amounts payable by HGCL to the Concessionaire will be governed by the monthly payments defined in Table.
- b. It is understood between the parties that such taxes as were applicable to the transactions hereunder as on the date of the bid are taken into account in the amounts to be paid hereunder to the Concessionaire by the HGCL and that the Concessionaire will not claim any additional amounts towards such taxes unless they

become applicable as a result of specific actions or lack of action by the HGCL.

- c. It is also understood that fresh liabilities resulting from any new enactment or amendment of applicable law during the contract period, will be borne by the HGCL.
- d. The Concessionaire shall submit a single bill for the full amount on monthly bills for the installments. The Concessionaire will remain responsible for its own tax liabilities.

20. Commencement of Payments

The HGCL will make payments only after erection and commissioning is completed. If erection and commissioning is not completed within a months time as stipulated in the contract, the monthly payments will not be paid. The payments will only commence from the date of completion of erection and commissioning. The 144 months period will not be extended on account of delay in commissioning.

21. Payments by the HGCL

The HGCL will pay each month to Concessionaire as per Table by the 15th of every month. These payments will continue until the completion of agreed contract period.

22. Payment Mechanism & Guarantee of Payment by the HGCL

- a. Under this agreement Concessionaire is required to finance the project initially and realize payments through installments made by the HGCL. In order to provide payment security acceptable to the Concessionaire's financiers, an ESCROW account mechanism shall be adopted by HGCL for routing its payments. Payments shall be routed through an ESCROW account to be opened immediately after award of contract.
- b. For this purpose, the HGCL shall enter a tripartite ESCROW agreement with the Concessionaire and the HGCL's Bank and immediately thereafter open the separate ESCROW Project Account. Amount equal to monthly installment defined in Table will be transferred to separate ESCROW project account from the HGCL's account. The HGCL's Bank shall be bound to secure and pay the Concessionaire's dues as above in accordance with the tripartite ESCROW Account Agreement.

23. Project Balance

Each month, Concessionaire will issue to the HGCL a statement indicating the project balance and the overdue interest if any, accrued till date.

24. Equipment Ownership

Concessionaire or the financial institution that has provided financing to Concessionaire for the EEMs may retain title to any equipment purchased and installed as part of the EEMs as security for the financing.

The ownership of all equipment purchased by Concessionaire pursuant to this contract and all transferable manufacturers' warranties applicable thereto shall, once the project balance is paid in full under the terms of this agreement, be transferred to the HGCL in working condition.

25. Energy Efficiency Measures Warranty

Concessionaire hereby warrants the EEMs against deficiencies in design, material, workmanship and during commissioning till end of contract period.

26. Provision of Additional Services.

The HGCL may request Concessionaire to perform additional work with the consent of Concessionaire at an extra cost which may be directly or indirectly associated with the improvements.

27. Delay, non-compliance or default by Concessionaire

If the Concessionaire fails to comply with any reasonable direction of the HGCL or is in default in any other manner under this agreement, the HGCL may, after giving the Concessionaire written notice with a reasonable time limit to remedy the default take reasonable corrective action and recover from payments to the Concessionaire the amount of costs and damages incurred by the HGCL on account of the subject default.

28. Taking the work out of the Concessionaire's Hands

- a. Under the following circumstances, the HGCL may take any portion of the EEMs out of the Concessionaire's hands and may employ such means as it may see fit to complete the improvements:
 - i. Sustained default by the Concessionaire in meeting its obligations, which is not on account of any force majeure conditions, and which has continued beyond specified working days after receipt of due notice issued by the HGCL in the matter.
 - ii. Concessionaire has become insolvent.
 - iii. Concessionaire has made an assignment of this contract without the consent of HGCL.

- b. Where any portion of EEMs is so taken out of the Concessionaire's hands:
 - i. The amount of all loss and damage suffered by the HGCL as a result, including the costs of having the works completed, will be recovered from the energy savings that would otherwise be paid to the Concessionaire and
 - ii. Concessionaire shall not be received any legal or contractual obligations other than the completion of that portion of the improvements that has been taken out of Concessionaire's hand.

29. Default by the HGCL

Notwithstanding force majeure, the Concessionaire, in addition to any other available remedies, may require that the HGCL pay to the Concessionaire the project balance along with all outstanding costs and commitments of the Concessionaire and a reasonable amount in respect of its lost profits, if any, of the following events occurs.

- a. HGCL sells, leases or otherwise transfers the facilities without the written consent of Concessionaire.
- b. The HGCL closes, or ceases to operate, the facilities for any reasons.
- c. The HGCL fails to pay the Concessionaire's dues or any portion thereof for a period exceeding 60 days beyond the date.

30. Contract Term

This contract shall commence on the date of execution hereof and continue till the end of the payment period of 144 months or until its closure in advance by means of payment to Concessionaire by the HGCL of the full balance payments and outstanding costs if any. This contract shall not in any case be closed until all payments due hereunder to the Concessionaire are fully paid and settled.

31. Termination Value

Termination value is the lump sum payment required to buy out the contract and to receive title of all equipments. Termination value for the project will be calculated as per the formula:

Termination value (in Rs.) = NPV of future installments payable to Concessionaire till end of contract period discounted at the rate of 10%.

32. Force Majeure

Subject to clauses 31 and 32 above, the failure of either party to meet any of the terms and conditions of this contract will not give rise to a claim by one party against the other, nor will it be viewed as a breach of this contract, where this failure flows from any of the force majeure conditions set out below. Force Majeure means an event.

- a. That was unforeseen by the parties,
- b. That was not controllable by the parties,
- c. That could not have reasonably been foreseen by the parties and
- d. Against which the parties could not have taken precaution, and includes
- e. Acts of god
- f. Strikes, lockout, riots,
- g. Fires, arson,
- h. Intervention by civil or military authorities,
- i. Governmental regulations or orders, and
- j. Acts of war (declared or non-declared).

33. Penalty

- a. Concessionaire shall maintain sufficient maintenance stock at its site office to undertake maintenance issues. The burning % of lamps to be maintained at least 95%. The Concessionaire has to make non-functional systems functional within 48 hrs after report of written complaint by HGCL. Otherwise penalty of Rs.100/- per Luminaire per day will be deducted from the payment to be released to the Concessionaire by the HGCL in consecutive month.
- b. HGCL shall ensure monthly payments to Concessionaire as defined in table by the 15th of every month. Any delay in payments shall attract a penalty at the rate of 10% (Ten percent) per annum simple interest.

34. Arbitration

- a. Both parties shall make all reasonable efforts to resolve any dispute, in any way connected with this contract through discussions and good faith negotiations.
- b. In the event of an unresolved disagreement between the HGCL and Concessionaire, either party may, by serving upon the other party a written notice specifying the issue, refer the matter to arbitration, which shall be governed by the following provisions subject to the Indian Arbitration & Conciliation Act. The arbitration proceedings will be presided by three (3) arbitrators.
- c. Within 30 working days following serving of a written notice, each party shall appoint an impartial and independent arbitrator. These two arbitrators shall appoint a third impartial and independent arbitrator within 30 working days thereafter.
- d. The arbitrator shall be at arm's length from both parties and shall not be composed of members of any company, firm or agency doing business with either party.
- e. The arbitrators shall meet with the HGCL and Concessionaire within 15 working days to discuss proceedings, to establish the procedure to be followed and time to render the decision.
- f. The arbitrators may require or permit the presentation of claim, defense and further written statements from the parties and shall fix the period of time to render the decision.
- g. The arbitrators may meet at any place they consider appropriate for hearing witness, experts or the parties, or for inspection of documents goods or other property. The arbitrators will conduct onsite inspections at the request of either party. Any onsite inspections shall be made in the presence of both parties and / or their representatives. Proceedings of any onsite inspection shall be recorded as part of the hearing itself.
- h. Unless decided otherwise under (f) above, the arbitrators shall render a decision within 15 working days following receipt of the statement of claims.

- i. The scope of the arbitration proceeding shall be limited to the resolution of the dispute submitted to arbitration.
- j. The parties agree that the determination and award of the arbitrators shall be final and binding on both parties.
- k. The costs associated with the arbitration process shall be shared equally by the Concessionaire and the HGCL.
- l. Works under this contract must, as far as is reasonable, continue during any arbitration and no amount payable to the Concessionaire shall be withheld during the period of arbitration.

35. Justification

Unless otherwise specifically agreed, the agreement and all matters arising there from will be subject to the jurisdiction of City Civil Court, Hyderabad.

36. Severable Covenants

If any provisions of this contract or the application thereof to any circumstances are held to be invalid or unenforceable, the remaining provisions of this contract or the application thereof to other circumstances are not affected thereby and are valid enforceable to the fullest extent permitted by law.

37. Waiver

Waiver of any performance or breach of this contract shall not constitute a waiver of any subsequent performance or breach of a requirement under this contract.

38. Entire Contract

This contract constitutes the entire contract between the parties with respect to the subject matter of this contract and supersedes all documents, letter, proposals, letters of intent, and other contracts relating to it unless they are incorporated by reference into this contract.

39. Further Assurances

The parties will sign and deliver all further covenants, assurances, transfers, assignments, consents and other documents as may be reasonably required to complete the improvements.

40. Amendment

No amendment, change or waiver in any terms and conditions of this contract shall have any force or effect until it is affected by a written amendment to this contract and duly executed by each of the parties to this contract.

41. Non-Disclosures & Confidentially

The parties undertake to keep confidential and not to disclose and confidential information of the other party or confidential information

disclosed by the other party as a result of the parties' cooperation under this agreement, and to protect such information against disclosure with the same degree of care that it uses to protect its own confidential information but not less than a reasonable degree of care. "Confidential information" is defined as any information or data in the possession of party, whether commercial or technical, which the party treats as a trade secret or confidential information or which by its nature should reasonably have been understood to be confidential to such party, provided that the following shall not be deemed secret or confidential information.

- a. Information or data which is in the public domain, otherwise than through an act or omission of the party against whom the disclosure is alleged,
- b. Information or data which was in the possession of a party before disclosure to it by the other party, or
- c. Information obtained from a third party who received such information lawfully, without restrictions as to further disclosure.

In witness whereof the parties there to have caused this agreement to be executed the day and year first above written.