



**Date: 19.09.2024**

**AMENDMENT-2**

**Tender Ref. No- JIL-YEW/NIT/2024/109 Dated 31.08.2024 for**

SITC of Solar power supply system including shifting of existing equipment at height of 5-6 meter on existing pole at 35 locations for CCTV and Speed cameras along Yamuna Expressway.

**Subject: Revised BOQ (Volume – II).**

With reference to the above-referred tender the following amendments are being made.

1. Revised BOQ (Volume-II) as enclosed.
2. Last date & time of submission of tender in hard copies / through email have been extended up to **03.10.2024 by 7.00 PM (IST).**
3. Date & Time of Opening of technical Tender shall be at **04.10.2024 at 4.30 PM.**

## TENDER

(Tender Ref. No.: JIL-YEW/NIT/2024/109 Dated 31.08.2024)

# VOLUME - II : ( BOQ)

For

**SITC of shifting the solar power supply equipment on height of 5-6 meter on existing pole at 35 locations of CCTV location and Speed Camera Location along Yamuna Expressway.**

(Last Date for Submission of Bids: 14.09.2024)/ 03.10.2024 (Amended)

**Issued By**

Jaypee Infratech Limited  
Sector 128, Noida – 201304  
Uttar Pradesh, India

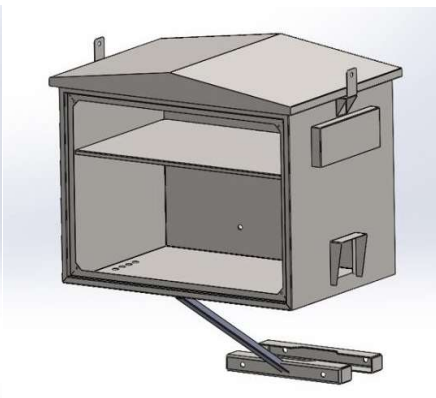
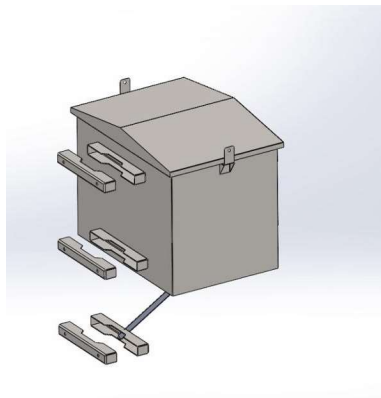
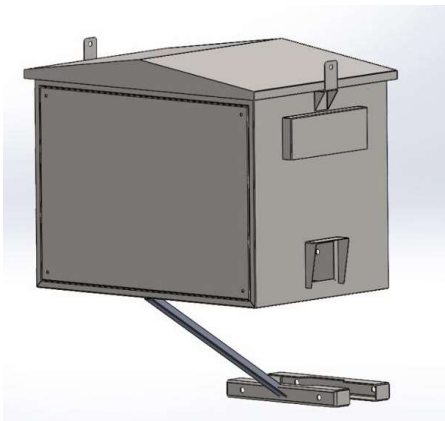


**PREAMBLE TO BILL OF QUANTITIES**

1. This Bill of Quantities (“BOQ”) shall be read in conjunction with all Volumes of the tender documents such as NIT, ITT & GCC and all other documents as mentioned in the tender documents.
2. Rates shall include the cost of all labour, materials, tools, plants and machinery, equipment, hoists, all form of works, steel scaffoldings, transportation and wastages etc. and testing of materials with Contractor’s testing appliances (as required), all other taxes, duties, levies, royalties, any other statutory obligations, Electricity, water, Contractor’s overheads & profit etc. Only GST shall be paid extra, as applicable.
3. The items of work set out herein which are further detailed in the work order, shall be carried out as per the approved drawings, specifications and directions of the Engineer-in-charge of Jaypee Infratech Limited (hereinafter called as JIL).
4. The Contractor shall be deemed to have studied the specifications and details of work to be completed within the time schedule and to have acquainted itself with the conditions prevailing at Site. The quoted rates shall be applicable for all works in any shape/size/section and design etc.
5. The quantities shown against various items, as provided by JIL, are estimated and provisional and are given to provide a common basis for bidding. The basis of payment will be made against actual measured quantities of work ordered and carried out items of Work as per BOQ. JIL (JAYPEE INFRATECH LIMITED) reserve reserves the right to add/ delete/ alter/ modify/ withdraw any items or part of the item or to reduce or increase any quantity or area to any extent without any limitations. The Contractor shall have no objection to the same. The Contractor shall execute the work/ items/ area/ quantity as per actual and final requirement of the work as per instructions of Engineer-in-charge (EIC) of JIL. The Contractor will be bound to execute these items as per contract rates. JIL will not entertain any claims or damages or part of the profit (which the Contractor might not make due to change in the quantities). No extra claim is entitled on this account.
6. In cases where the specifications given in the Description of the item of work in BOQ are found wanting, the CPWD Specifications-2019 (with up-to-date correction slips), MoRTH & IRC Specifications, shall be followed; and where not specified, specifications of the latest edition of relevant IS codes shall be applicable. In case of any ambiguity in interpretation, JIL’s decision shall be final and binding.
7. The rates and the prices shall hold good for all heights/ depths leads, lifts and levels, working in all conditions including in/under water, liquid mud, foul conditions etc. unless otherwise specifically stated against an item in the BOQ.
8. Rates include all costs for disposal of rubbish or malba etc. (generated / accumulated by the Contractor during the execution of this work) outside the site premises, removal of labour hutment, any temporary structure etc., demobilization from site/any premises provided by JIL. Nothing extra shall be payable on any such account.
9. General directions and descriptions of work are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
10. All materials samples to be submitted and got approved from JIL before execution of work.
11. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of Work.
12. The method of measurement of completed work for payment shall be in accordance with the Technical Specifications & IS Codes.



BNC connector



Waterproof encloser box

## SAMPLE PHOTOS



**EXISTING AT SITE**

## Bill Of Quantity (BOQ)

### SITC of Solar power supply system including shifting of existing equipment at height of 5-6 meter on existing pole at 35 locations for CCTV and Speed cameras along Yamuna Expressway.

Sr. No.	Item	Technical Specifications	Make	Quantity	Unit	Rate (Rs.)	Amount (Rs)
<b>1</b>	<b>Supply, Installation, Testing &amp; Commissioning (SITC) of Solar Power System for 72 Hours Backup</b>						
1	Design, drawing, supplying, erection, testing and commissioning of solar power supply unit, solar panels charging controller unit, Inverter, Lithium ion batteries with suitable capacity and connecting wire, including waterproof enclosure box for housing the entire solar power system and communicating switches for 72 hours power backup to CCTV and communication switches.	<b>72 Hours Backup</b>					
1.01	Solar Panel Set	Minimum 1kWp (540 Wp X 2 or 335 Wp X 3 or any other combination with same peak panel)	Waree/Saatvik/ UTL	35	each		
1.02	<b>Less</b> On item no 1.01 above for using existing Solar Panel set available at site including shifting and fixing to the desired location. (Existing panels shall be provided free of cost to the contractor)	Existing panels (Waaree 140 Watt X 8)		35	each		(-)
1.03	Batteries Set (with 5 years warranty complete in all respect)	Lithium ion 440 AH	Surja Solar / Amron/Microtek / Exide	35	each		
1.04	Solar Inverter (with 2 years warranty complete in all respect)	1 KVA / 12V / 24 V	Microtek/ Exide/Servo- tech/Fuji	35	each		
<b>2</b>	<b>Waterproof enclosure box for Solar Power System</b>						
2.01	Design, drawing, supplying, erection of waterproof enclosure box with ventilation fan & lock for housing the entire solar power system and communicating switches for supplying electricity to the CCTV system and Speed capturing system, including providing all necessary arrangement for hanging solar panels and housing for required accessories i.e. switches, fiber box, patch cables, fiber LIU, batteries, inverter, extra fixed with proper brackets or suitable required support system at <b>minimum 6 mtr</b> clear height from finished adjacent road level as per the satisfaction of the engineer in charge.  <b>Note:</b> Design and drawing for this item shall be made from an experience structural engineer for enclosure box including fixing arrangement and assessment of load (of entire solar power system) carrying capacity the of existing pole. Structural safety certificate shall be got approved from IIT / MNIT/AMU/ any Government engineering college and shall be submitted by the contractor to JIL.	Waterproof enclosure box (IP67) with ventilation fan & lock for housing for the entire solar power system and all other assembly as per the approved design.	Fabricated	35	each		

**SITC of Solar power supply system including shifting of existing equipment at height of 5-6 meter on existing pole at 35 locations for CCTV and Speed cameras along Yamuna Expressway.**

Sr. No.	Item	Technical Specifications	Make	Quantity	Unit	Rate (Rs.)	Amount (Rs)
<b>3</b>	<b>Supply, Installation, Testing &amp; Commissioning (SITC) of Earthing (Lightning arrester) for Pole and Equipment</b>						
3.01	Earthing of Lightning Arrester, 1200mm earthing rod with chemical, copper wire 4 mm connectivity from arrester to earthing rod	Copper rod LA- 300mm ,Down conductor 10 sqmm - 25 meter/Node		35	each		
<b>4</b>	<b>Supply, Installation, Testing &amp; Commissioning (SITC) of Cabling at Each locations</b>						
4.01	Fiber patchcord	Singlemode LC - LC Duplex - 1 meters	D-link	35	each		
4.02	Fiber patch panel (LIU)	6 port Fiber patch panel pre-loaded - rack mount - LC type	D-link	35	each		
4.03	Cable & accessories	UTP CAT6	Polycab /D-Link	1200	rmt		
4.04	BNC Connectors	(6 Per Location)		210	each		
4.05	AC to DC SMPS (12v, 3A) for Communication device		Meanwell	35	each		
4.06	Solar Cable harness (6 Amp)	12 per location		420	each		
4.07	Electrical Board (5 Socket of 6Amp per location)		Havells	35	each		
4.08	3-Pin Top of 6Amp (5 each location)		Havells	175	each		
4.09	Surge Protector		Havells	35	each		
<b>5</b>	<b>Supply, Installation, Testing &amp; Commissioning (SITC) of Fiber Connectivity with Existing Backbone</b>						
5.01	OFJC	Bamboo Type for 2 in 2 out	D-Link	35	each		
5.02	Fiber Cable from location backbone to Enclosers box including digging and refilling	6 Core Optic Fiber Cable, Armoured	D-Link	875	rmt		
5.03	Splicing & Other Etc.			35	each		

**Total (without GST), Rs.**

Amount in Words (without GST): Rupees.....

**Note:**

1. Only GST shall be paid extra as applicable.
2. All other taxes, Octroi, Royalty, Labour Cess, other Cess, Levy etc. are included in the above quoted rates.
3. Fittings and materials shall be with ISI mark (wherever approved makes are not mentioned).