



## Purchase Order

PO Number: <b>7100014309 &amp; 7600049048</b>	PO Date: 03 <sup>rd</sup> May 2021	Page 1 of 23
Vendor Address; SWITCHING AVO ELECTRO POWER LIMITED, Ahmedabad, 75, 382445, India, 24- Gujarat Your Vendor No. with us- 1010030575  GST No. 24AAICS2473C1ZL	Bill To Address; KEC International Ltd. PLOT NO 803, SAMLAYA SAVLI ROAD, VILLAGE GODAMPURA, Vadodara, Gujarat, 391520  GST No. 24AACCK5599H1Z8	Ship To Address. KEC International Ltd, c/o BHARAT ELECTRONICS LIMITED, IAF Station Bhuj, District - Kutch, PIN - 370001  GST No. 24AACCK5599H1Z8
Kind Attention: Telephone: +919830715092 Email: hdhar@avoups.com	Purchase Group: SmartInfra BO Approval No.: 0000115422 SmartInfra Serv Approval No.: 0000115402	Contact person Name & Mob No.: - Aveek Mishra (Mob - 8779598334)
Quotation Ref. No.: Mail dtd. 24/03/21	Project No. A4-101	Currency: INR
INCO Terms: Gujrat, Bhuj	Terms of Payment: Due in 45 Days - Vendor	
Details of Annexure Attached to this Order	Annexure 1 : Detail Description of Item Qty and Price: Refer Page No 2 Annexure 2 : GCC for Supply : Refer Page No. 07 Annexure 3 : Tech Specification and Compliance : Refer Page No 20	

Dear Sir/Madam,

**Subject:** Purchase Order for Supply of UPS system with 2 years warranty and subsequent 5 Years CAMC as given below for BEL IPSS (Integration of Integrated Perimeter Security System) Project (Package-09) for **Bhuj Location** in the state of **Gujarat**.

Ref.:1. M/s. SAVO Initial offer vide email, 10<sup>th</sup> Dec 2019 subsequent discussion and negotiations ending with final offer dated 28<sup>th</sup> April 2021

2. Request for proposal for system integration of integrated perimeter security system (si-ipss) package-09 - Tender ID: 2019\_BEL\_79775\_1

With reference to your above-mentioned offer, emails and subsequent discussions and we are pleased to issue this order for the subject requirement as per the documents enclosed herewith as Terms & conditions detailed Below. The Technical Specification sent along with the RFQ, subsequent Clarifications, MOMs (If any) and all other Terms and conditions (except otherwise specifically agreed to in writing) as specified here under and to be read along with attached Terms & conditions shall form an integral part of this Order. placing our Purchase Order (PO) on you for Supply of UPS system with 2 years warranty and subsequent 5 Years CAMC (**Integration of Integrated Perimeter Security System**) Project (**Package-9**) for **Bhuj Location in the state of Gujarat**.

### Details of our terms & conditions are as under:



### Annexure 1

Terms & condition to Purchase Order No. Supply PO No.7100014309 & Service PO No.7600049048

#### 1. Item, Qty, Price Details:

Sr. No.	Item Desc	GST %	UoM	Qty	Unit Price	Total Basic Value	Tax Amount	Total Amount	Type of Goods	PO Number
10	2*40 KVA UPS (120 min backup) (Data Center)	18%	SET	1	5,05,725.60	5,05,725.60	91,030.61	5,96,756.21	Supply	7100014309
20	12V/200AH SMF (64+64 =128 Nos)	28%	SET	1	14,69,539.80	14,69,539.80	4,11,471.14	18,81,010.94	Supply	7100014309
30	1*10KVA UPS (30 min backup) Perimeter (Field)	18%	Nos	6	73,703.40	4,42,220.40	79,599.67	5,21,820.07	Supply	7100014309
40	12V/75AH SMF (16 Nos)	28%	Set	6	92,339.40	5,54,036.40	1,55,130.19	7,09,166.59	Supply	7100014309
50	2*10KVA UPS (60 min backup) (GDCC)	18%	SET	1	2,18,841.00	2,18,841.00	39,391.38	2,58,232.38	Supply	7100014309
60	12V/100AH SMF (20 +20 = 40 Nos)	28%	SET	1	2,28,418.80	2,28,418.80	63,957.26	2,92,376.06	Supply	7100014309
10	I&C of 40 KVA UPS with Battery (DC)	18%	Set	1	3,29,210.90	3,29,210.90	59,257.96	3,88,468.86	I&C	7600049048
20	I&C 10 KVA UPS with Battery Perimeter (Field)	18%	Nos	6	27,673.80	1,66,042.80	29,887.70	1,95,930.50	I&C	7600049048
30	I&C 10 KVA UPS with Battery (GDCC)	18%	Set	1	74,543.30	74,543.30	13,417.79	87,961.09	I&C	7600049048
40	<b>CAMC of 40 KVA UPS with Battery (DC) Qty 1 Set</b>									
40.1	Comprehensive Annual Maintenance Contract (CAMC) 3rd Year	18%	Set	1	1,97,526.54	1,97,526.54	35,554.78	2,33,081.32	CAMC	7600049048
40.2	Comprehensive Annual Maintenance Contract (CAMC) 4th Year	18%	Set	1	1,97,526.54	1,97,526.54	35,554.78	2,33,081.32	CAMC	7600049048
40.3	Comprehensive Annual Maintenance Contract (CAMC) 5th Year	18%	Set	1	1,97,526.54	1,97,526.54	35,554.78	2,33,081.32	CAMC	7600049048
40.4	Comprehensive Annual Maintenance Contract (CAMC) 6th Year	18%	Set	1	1,97,526.54	1,97,526.54	35,554.78	2,33,081.32	CAMC	7600049048
40.5	Comprehensive	18%	Set	1	1,97,526.54	1,97,526.54	35,554.78	2,33,081.32	CAMC	7600049048



Sr. No.	Item Desc	GST %	UoM	Qty	Unit Price	Total Basic Value	Tax Amount	Total Amount	Type of Goods	PO Number
	Annual Maintenance Contract (CAMC) 7th Year									
50	<b>CAMC of 10 KVA UPS &amp; Battery (Field) Qty 6 Nos</b>									
50.1	Comprehensive Annual Maintenance Contract (CAMC) 3rd Year	18%	Nos	6	16,604.28	99,625.68	17,932.62	1,17,558.30	CAMC	7600049048
50.2	Comprehensive Annual Maintenance Contract (CAMC) 4th Year	18%	Nos	6	16,604.28	99,625.68	17,932.62	1,17,558.30	CAMC	7600049048
50.3	Comprehensive Annual Maintenance Contract (CAMC) 5th Year	18%	Nos	6	16,604.28	99,625.68	17,932.62	1,17,558.30	CAMC	7600049048
50.4	Comprehensive Annual Maintenance Contract (CAMC) 6th Year	18%	Nos	6	16,604.28	99,625.68	17,932.62	1,17,558.30	CAMC	7600049048
50.5	Comprehensive Annual Maintenance Contract (CAMC) 7th Year	18%	Nos	6	16,604.28	99,625.68	17,932.62	1,17,558.30	CAMC	7600049048
60	<b>CAMC of 10 KVA UPS &amp; Battery (GDCC) Qty 1 Set</b>									
60.1	Comprehensive Annual Maintenance Contract (CAMC) 3rd Year	18%	Set	1	44,725.98	44,725.98	8,050.68	52,776.66	CAMC	7600049048
60.2	Comprehensive Annual Maintenance Contract (CAMC) 4th Year	18%	Set	1	44,725.98	44,725.98	8,050.68	52,776.66	CAMC	7600049048
60.3	Comprehensive Annual Maintenance Contract (CAMC) 5th Year	18%	Set	1	44,725.98	44,725.98	8,050.68	52,776.66	CAMC	7600049048
60.4	Comprehensive Annual Maintenance Contract (CAMC) 6th Year	18%	Set	1	44,725.98	44,725.98	8,050.68	52,776.66	CAMC	7600049048
60.5	Comprehensive Annual Maintenance Contract (CAMC) 7th Year	18%	Set	1	44,725.98	44,725.98	8,050.68	52,776.66	CAMC	7600049048
<b>Grand Total Amount Supply + I&amp;C + CAMC</b>						<b>56,97,970.00</b>		<b>69,48,804.10</b>		

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**Total Contract value in words: Sixty-Nine Lakh Forty-Eight Thousand Eight Hundred Four**

Detailed specifications of the supplied material shall be fully compliant with specification requirements mandated in RFP # BEL IPSS Package 9 Gujarat Package HLS\_SIIPSS\_Package\_09\_14112019 (copy available with you) and its subsequent corrigendum's. If the supplied material specification is found deviating from RFP requirements, then the material may get rejected.

**2. Taxes & Duties:**

GST as applicable (based on the HSN/ SAC code) is included in total contract price. Any statutory variations during the contract period shall be payable as applicable against the documentary evidence.

**3. Delivery Period:**

M/s. SWITCHING AVO shall complete all the deliveries within 4 weeks from the (date of Sample approved/FAT) and Manufacturing clearance from KEC Project Team and delivery shall be start immediately After getting dispatch clearance from KEC Project Team.

The UPS system shall be commissioned as per Project Completion Schedule to be agreed in line with KEC's contractual conditions with BEL.

SWITCHING AVO Team shall proactively co-ordinate with project team and arrange to provide material / Service as per actual site conditions.

**4. Delivery Terms:**

Fright, transportation, Packing and forwarding, transit Insurance Charges up to destination BEL IPSS Warehouse/ Site Included in Total contract Prices.

**5. Payment Milestone:****For Equipment UPS & Battery with 2 Years warranty (60%)**

100 % of Total Contract Price along with Taxes/GST shall be payable on Pro-rata basis within 45 days of receipt and acceptance of materials at TPL's warehouse against submission of Invoice, duly certified by KEC's Project Manager/authorized representative.

**For Installation, Testing and Commissioning (10%)**

100 % of Total Contract Price along with Taxes/GST shall be payable on Pro-rata basis within 30 days after successful Commissioning of UPS System against submission of Tax Invoice, duly certified by KEC's Project Manager / Authorized representative.

**For CAMC Payment for next 5 years after Expiry of warranty period of 2 Years:(30%)**

The payment for the CAMC shall be made in arrears at the end of every quarter within 30 days from the date of receipt of the Tax invoice, duly certified by KEC's Project Manager / authorized representative.

**6. Performance Bank Guarantee (PBG)**

**For Capex :** The PBG for 10% Total Contract Price shall be submitted from any nationalized Bank/First Class scheduled Bank of RBI in KEC's format before dispatch of Material on Capex Prices (Supply+ I&C ) and valid till completion warranty Period ( 2 Years ) with claim period of 6 months thereafter.

**For OPEX:** The PBG for 10% Total Contract Price shall be submitted from any nationalized Bank/First Class scheduled Bank of RBI in KEC's format prior to commencement of CAMC period and valid till completion CAMC Period (5 Years) with claim period of 6 months thereafter.

**7. Bill to Address and Ship to Address:**

State	Site Name	Bill To Address	Ship To Address
Gujarat	Jamnagar	To,	To,
		Address :- KEC INTERNATIONAL LIMITED, PLOT NO 803, SAMLAYA SAVLI ROAD, VILLAGE GODAMPURA, Vadodara, Gujarat, 391520	Address KEC International Ltd, c/o BHARAT ELECTRONICS LIMITED, IAF Station Bhuj, District - Kutch, PIN - 370001
		GST No :- 24AACCK5599H1Z8	GST No :- 24AACCK5599H1Z8
		Contact person Name & Mob No.:- Aweek Mishra (Mob - 8779598334)	Contact person Name & Mob No.:- Aweek Mishra (Mob - 8779598334)

**8. Warranty / Defect Liability Period and CAMC:** Back to back basis as per RFP Term.

**9. Liquidated Damages for Delays, Short fall in Performance and overall:**

Liquidated Damages shall be applicable to the order, to the extent of 0.5 % per week of delay with capping of 10% of the value of undelivered supply of Material and Service

**10. Quantity Variation:**

Qty mentioned are Projected qty and are subject to vary any extent including the extended delivery schedule, if any. However, the agreed unit rate shall remain firm till the completion of entire order qty.

**11. Price Variation Clause:**

The Unit Rates shall be FIRM and shall not be subject to any escalation, for whatsoever reason, till the completion of entire Project (i.e. 7 years) including extended completion period for entire BOM, if any.

**12. All RFP terms to be complied by Switching AVO SLA, LD, warranty, penalty etc., on account of Switching AVO products will be applicable to Switching AVO on back to back terms as per the RFP, Corrigendum's, Reply to Pre bid Queries of BEL Airforce IPSS Tender.**

**13. Detail BOM and Scope of work:** Refer Annexure 3

**14. Inspection at factory / vendor location:**

M/s. Switching AVO will extend all necessary support and coordinate with KEC / Client for the inspection at factory / site as required. Material shall be shipped by the vendor only after receipt of formal dispatch clearance from KEC / Client.

Scope of inspection would be as per QAP of M/s. Switching AVO in lines with the RFP requirement for the items being procured. In case PDI is requested by Client, expenses incurred for inspection team on travel, food and stay and Third-Party Inspection would be borne by KEC.

#### **15. Dispatch/ Packing Instruction.**

M/s. Switching AVO shall not make the Supply available for transport or dispatch the Supply directly without KEC's prior written consent, failing which KEC reserves the right to return the Supply to the Supplier at Supplier's risk and expense. KEC project Team shall give Dispatch clearance after receipt of Test report from M/s. Switching AVO

Dispatch clearance would be given based on inputs from BEL on requirement of Pre-Dispatch Inspection (PDI). PDI is as per requirements mentioned in RFP and is as per Client discretion. In case PDI is not required by client, same would be intimated to M/s. Switching AVO in advance.

M/s. Switching AVO to forward vehicle details along with Tax Invoice Immediately to KEC Project Team (this is as per end client mandate for obtaining necessary approvals at AF Station for smooth movement of vehicles and Inward of material).

- ✓ Trucks shall be fully covered with tarpaulin.
- ✓ No stickers shall be pasted on the carriers delivering material. (eg. On Defence/Air Force duty, Defence material etc.)
- ✓ Video/ Photographs of all such consignments are to be taken prior to the dispatch of vehicle and preserved for future reference. This picture is to be shared with [mandalparitosh@kecrpg.com](mailto:mandalparitosh@kecrpg.com) for records and future submission to BEL if required
- ✓ Details of vehicles (Driver's license, RC copy) along with date of arrival at each site is to be intimated at least 2 days in advance for necessary approval from AF Stations for entry and smooth unloading

Kindly acknowledge receipt of this Purchase Order and arrange for execution at the earliest. Please return copy of this PO duly signed and stamped by you for our record within 3 working days of receipt. This PO shall be treated accepted in case no acknowledgement is received within 3 working days from the date of receipt of this PO. Kindly refer General Terms & Conditions applicable for this order.

All further correspondence with respect to this order may please be addressed to the following person. Kindly mention our Purchase Order reference numbers in all correspondence.

Mr. Dilipsinh Sodha (AM Procurement – Smart Infra) Tel. No.: +91-8879633319,  
Email: [sodhdb@rpgsmartinfra.com](mailto:sodhdb@rpgsmartinfra.com)

Thanking you,  
Yours faithfully,

For KEC International Limited



Authorized Signatory

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## Annexure 2

### GENERAL TERMS & CONDITIONS to Purchase Order No for Supply 7100014309 & For 7600049048

#### 1. DEFINITIONS AND INTERPRETATION

- 1.1 Purchaser shall mean KEC International Limited, a company incorporated under the provisions of the Companies Act, 1956 and having its registered office at RPG House, 463, Dr. Annie Besant Road, Worli, Mumbai-400030 (India) and includes its successors and assigns ("KEC");
- 1.2 Supplier shall mean **SWITCHING AVO ELECTRO POWER LIMITED,,**
- 1.3 Client shall mean **Bharat Electronics Limited**
- 1.4 Project shall mean **Request for Proposal for System integration of Integrated Perimeter Security System (SI- IPSS) Package 9 for Bhuj Location in the state of Gujrat.**
- 1.5 Contract/ Purchase Order shall mean the Purchase Order and the Sellers acceptance of the Purchase Order.
- 1.6 Goods shall mean goods agreed in the Contract to be bought by the Buyer from the Seller (including any part or parts of them), including Goods required to be delivered in performance of the Services and Goods returned to the Seller for repair in accordance with the Contract, as further described in the Specification

#### 2. GENERAL TERMS

- 2.1 The Supplier shall supply to KEC and KEC shall purchase from the Supplier the Goods on the terms and conditions contained in this Contract.
- 2.2 The Scope of Work is provided under Terms & Conditions to this PO Clause no 13
- 2.3 The Goods to be supplied by the Supplier to KEC shall be as per the technical specifications specified under RFP of the Client shared with the Supplier, and within the delivery schedule communicated by KEC.

#### 3. GOODS, QUANTITY AND PRICES:

- 3.1 The details of item, quantity and prices are as per Purchase Order. The prices are FOR destination.
- 3.2 Prices mentioned in Price Schedule include the following costs
  - i) The cost of all type tests (performed in a Lab approved by Client or Manufacturer's lab), and acceptance, routine and sample tests, special tests if any (required by Client) and inspection of the materials before shipment as per the Client specification / Contract.
  - ii) Independent Inspection Agency (if required)  
If required by Client, there will be inspection by third party/ Independent Inspection Agency. All cost towards the Independent Inspection will be borne by KEC.
  - iv.) The clearance for quantity/manufacturing/supply of material will be given to Supplier after inspection and in a single lots separately by KEC's project division
  - v.) Hedging clause: Not applicable

#### 4. APPROVAL, TYPE TEST AND MQP:

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- 4.1 The Supplier shall provide necessary Drawings, approvals, approved MQP, approved type test of the Client within 10 days from the date of LOA for submission to Client. For drawing and MQP approval the Supplier shall provide complete technical support without any cost to KEC.
- 4.2 The Supplier shall submit the valid approved Type test reports of similar items for onward submission to Client for approval. However, if, Client insists for fresh type test, the same will be carried out by Supplier at his own cost.
5. QUANTITY VARIATION
- 5.1 The quantities indicated in the Price schedule are provisional and are subject to variation of +/- 10% of the order amount during the execution of contract. Supplier shall be responsible for execution of such finalized quantity for this Contract without change in unit price and other Terms and Conditions during the tenure of this Contract even if the final/spare quantity is released by KEC's Client beyond delivery schedule.
- 5.2 M/s. SWITCHING AVO to undertake full responsibility to complete the supply of all Qty in its entirety within the agreed time schedule in full compliance to RFP and within 3 to 4 weeks from the date of receipt of PO and partial delivery of the Material and Qty not allowed.
- 5.3 Variation made necessary because of any default of the Supplier in performance of its obligations under the Contract shall not be deemed to be variation and such change shall not result in any adjustment of the Value or the Delivery Date.
- 5.4 Risk of advance procurement of material by Supplier or manufacturing by the Supplier before prior approvals from KEC will be on Supplier account.
6. TECHNICAL PARTICULARS:
- 6.1 All the technical parameters of the Client specification shall be fully applicable for Supplier's supplies. The offered materials shall conform to material, testing, packing and other technical details of Client Specification / Contract. Materials offered by Supplier shall fully meet the various standards and the technical requirements as mentioned by Client in the tender documents and the onus for ensuring the technical acceptance of Supplier's designs, materials, testing by Client will fully rest with Supplier.
- 6.2 Any modifications, improvement necessary to meet Client Specification/requirement will be done by the Supplier without any extra cost to KEC. (Not applicable)
7. INSPECTION & TESTING
- 7.1 All types of Routine Tests, Acceptance Tests, and Sample Tests on the raw materials, work-in-progress(Stage inspection) ,Hardware Component Acceptance Testing Procedures, Software Component Acceptance Testing Procedures and finished materials and inspection prior to dispatch as per Client technical specifications and testing requirement stated in the tender / contract specification of the Project shall be performed by Supplier in the presence of representative of KEC / Client/ Agency appointed by Client.
- 7.2 All materials and Goods related to conducting the tests to be arranged by the Supplier.
- 7.3 Incase client insists for inspection during manufacturing and before dispatch, requisite facilities shall be extended by the Supplier without any extra cost to KEC.
- 7.4 Supplier shall give advance intimation of 2 days prior to date of FAT (Inspection) being offered to enable KEC / Client to organize the logistics for Inspectors material inspection & pre-shipment inspection.
- 7.5 In case of any additional tests, the same will be at Supplier's cost. Incase Supplier has previous type test reports for same product, KEC shall submit to the Client for acceptance and waiver of type tests. Incase insisted upon, these type tests to be carried out at Supplier's cost.



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- 7.6 Incase inspection is to be done in presence of Client, all costs related to Client (travel, accommodation, food) to be borne by KEC
- 7.7 After successful inspection, the Inspection Team shall sign and stamp the inspection clearance certificate prepared by the Supplier and the Supplier can thereafter proceed with packing and dispatch of the Goods to KEC's Site.
- 7.8 If FAT and any other tests has to be repeated for reason attributable to Supplier then the cost of inspection including international travel, local transport at the place of Supplier, hotel accommodation and food of client/consultant shall be borne by KEC
- 7.9 In the event of test results not satisfying the requirements of the Technical specifications or guaranteed performance, the manufacturer/Supplier shall improve the Goods until satisfactory results are obtained and shall conduct retests at his own expense.
- 7.10 Any delay in delivery due to the retest shall not constitute a release of Supplier from his responsibilities for delay. All expenses incurred by Client in attending the retest shall be borne by the supplier.
- 7.11 Incase type test fails, KEC reserves the option to cancel the order and procure without any liability to KEC from any other sources acceptable to the Client. Additional cost (if any) that will be borne by KEC while switching to the alternate source will be passed on to the Supplier.
- 7.12 No inspection or lack of inspection by Client or work, plant or materials, whether carried out or supplied by the supplier, shall not relieve the Supplier from his liability to complete the contract works in accordance with the contract or exonerate him from any of his guarantees.
8. PACKING
- 8.1 Protection of Goods  
The Goods must be properly packed and the package containing the Goods must be sufficiently strong to withstand rough handling form the Supplier's site, and while in transit, stowage and storage to final delivery to KEC's Site to prevent deterioration or damage to the Goods. Packing list must be included in each box or individual units of packing of Goods.  
The Supplier shall take suitable precautions and measures to protect the Goods against dampness, moisture, rain, rust, shock and deformation and special precaution should be taken to prevent rusting of steel and iron parts of the Goods during transit and during storage at Site.
- 8.2 Packing Material  
All packing requirements shall fully comply with Client specifications. All packing material for packing of the Goods will comply with all relevant statutory requirements and regulations. The Supplier will indemnify KEC against all claims or liability suffered or incurred by KEC as a result of such packing material not so complying as stated above.
- 8.3 Improper Packing  
If the Goods is damaged and/or lost attributable to improper packing or inadequate protective measures the Supplier will be liable for repair and/or replacement of the Goods and/or part of the Goods free of cost to KEC.
- 8.4 For Goods supplied from outside the Client's Country:  
Upon shipment, the Supplier shall notify KEC and the insurance company contracted by the Supplier to provide cargo insurance by telex, cable, facsimile, electronic mail, or EDI with the full details of the shipment. The Supplier shall promptly send the following documents to KEC by mail or courier, as appropriate, with a copy to the cargo insurance company:

- (a) Two copies of the Supplier's invoice showing the description of the Goods, quantity, unit price, and total amount;
- (b) Usual transportation documents;
- (c) Insurance certificate;
- (d) Certificate(s) of origin; and
- (e) Estimated time and point of arrival in the Client's Country and at the site. ( Not applicable)

8.5 For Goods supplied locally (i.e., from within the Client's country):

Upon shipment, the Supplier shall notify the Client by telex, cable, facsimile, electronic mail, or EDI with the full details of the shipment. The Supplier shall promptly send the following documents to KEC by mail or courier, as appropriate:

- (a) Two copies of the Supplier's invoice showing the Goods' description, quantity, unit price, and total amount;
- (b) Delivery note, railway receipt, or truck receipt;
- (c) Certificate of insurance;
- (d) Certificate(s) of origin; and
- (e) Estimated time of arrival at the site.

9. DELIVERY AND TRANSFER OF RISK AND TITLE

9.1 Delivery

- (a) The Goods shall be delivered under the Contract on FOR Destination within Delivery Schedule. Supplier shall be responsible for any delay in delivery (for reasons attributable to Supplier) and shall not be eligible for any Delivery extension on this account. Any Adjustment in delivery to meet KEC's site requirement during execution of contract /completion of project shall be ensured by Supplier.
- (b) Supplier shall provide project progress schedule specifying the complete plan including but not limited to manufacturing, inspection, dispatch etc. on fortnightly basis.

9.2 Transfer of Risk and Title

The full and unrestricted title to the Goods shall pass to the Purchaser when the first of the following events occurs:

- (a) When the Purchaser pays for the Goods or part thereof in accordance with the Purchase Order;
- (b) When the Goods or part thereof are delivered, however, such transfer of title will be without prejudice to Purchaser's right to refuse the Goods in case of non-conformity with the requirements of the Purchase Order.
- (c) All Goods with respect to which ownership has been vested in the Purchaser in accordance with clause 9.2 shall be registered by Supplier as being held on behalf of the Purchaser and as being the property of Purchaser and such Goods shall be segregated by the Supplier and shall be marked or otherwise identified as such.
- (d) Irrespective of transfer of title to the Goods, Supplier shall remain responsible for risk of loss or damage until delivery of the Goods to the delivery point specified in the Purchase Order in accordance with the specified delivery terms.
- (e) Supplier shall ensure that in contracts with its sub suppliers' provisions similar to those incorporated under clause 9.2 are included to secure the Purchaser's rights as stated above.
- (f) Supplier shall arrange that any rights and titles (together with the obligations connected herewith) which the Supplier may acquire vis-à-vis, sub suppliers or any sub supplier may acquire vis-a-vis third parties, can if so required by Purchaser be assigned to Purchaser.

10 INSURANCE

- 10.1 FOB: The Supplier shall keep all the Goods as mentioned in the Contract insured from all risk, including third party claims at the Supplier's cost till the goods are loaded on board.

- 10.2 The Supplier shall provide insurance covering for an amount equivalent to 110% of the FOB/Contract Value in freely convertible currency from eligible country on all risk basis as per 'ICC- A risks' category including war, terrorism and strikes on only 90 days deferred unpacking. Coverage exist, irrespective of order placed on FOB basis and valid for 90 days after receipt of Goods/ material at final destination.

## 11 SHORTAGES/DAMAGES:

- 11.1 Supplier shall ensure the items being dispatched are complete in all respects and without any short supplies. Supplier shall furnish an undertaking stating the following:  
"We hereby certify that the items being dispatched against Purchase Order No \_\_\_\_\_ dated \_\_\_\_\_ and packing list ref \_\_\_\_\_ dated \_\_\_\_\_ are complete in all respects as per our scope of supply against the above-mentioned Purchase Order."  
In case of short supplies from any cause whatsoever, Supplier shall at his own cost and risk, repair and make good the same.
- 11.2 Within 60 days from the date of arrival of material/ Goods at project site store, KEC shall submit "Damages / Shortages Report "to Supplier and Supplier shall arrange for the replacement of the same. In case of any damage indicated by KEC, Supplier will depute Supplier representative for site inspection (if necessary) in order to carry out remedial measures / arrange free replacement.
- 11.3 In case of any manufacturing defects in the materials/ Goods are observed after receipt at site of Project or during erection or testing commissioning or thereafter, such material/Goods shall be replaced by Supplier without any additional cost to KEC without loss of time, meeting with Client requirements. In any case, the replacement must be completed within the timelines prescribed by the Purchaser and or Client.
- 11.4 It is agreed by Supplier that in the event, Supplier is unable to supply the quantities of Goods as required and mentioned in this Order in reasonable time period, KEC shall be at liberty to terminate the contract.

## 12 CHANGES IN TECHNICAL SPECIFICATION OR SCOPE

- 12.1 The changes to the technical specification of the Goods or scope of delivery of Goods if incorporated in writing form and mutually agreed by the Parties, shall apply with the same effect as if they were a part of the technical specification or scope of delivery of Goods.
- 12.2 KEC's request for change in the technical specification or scope of delivery of Goods shall be in writing. If necessary, the Supplier shall diligently but in no event later than 7 days after receiving such request advise KEC of any change in agreed Contract Price/delivery time schedule which may result from such changes. The Parties shall thereafter mutually agree on the changes and sign suitable amendment to the Contract incorporating the changes.
- 12.3 With the specific written approval of KEC the Supplier may make necessary technical alteration during the progress of manufacture and delivery of the Goods, which do not effect the quality and performance levels of the Goods. KEC may give such written approvals subject to change in agreed Contract Price and/or delivery time schedule being agreed to.
- 12.4 Any approval by KEC to change as set forth in the changed specifications shall not release the Supplier of their obligations under this Contract.
- 12.5 Notwithstanding anything contrary contained herein, Supplier agrees and undertake that:
- 12.5.1 any changes to technical specifications or scope which KEC has made, shall be binding upon Supplier;
- 12.5.2 Supplier shall continue to supply the Goods as per KEC's Specification/Delivery Schedule, pending the mutual agreement on price between the Parties.

## 13 LIQUIDATED DAMAGES

### 13.1 For delayed delivery

- (a) In case of the delivery by the Supplier of the Goods is delayed for the reasons not attributable to KEC beyond the delivery schedule or any extension thereof with the exception of the Force Majeure event as specified under Project Documents and change of technical specification or scope as agreed between the Parties hereto the Supplier shall be liable for payment of liquidated damages to KEC.
- (b) The rate of liquidated damages shall be one (0.5%) per cent per week or part thereof subject to a maximum of ten (10 %) per cent of the Contract price.
- (c) The Supplier agrees that the amount stated as liquidated damages in the above clause may be deducted from any money owing by KEC to the Supplier.
- (d) The Parties hereto agreed that the liquidated damages mentioned in the above clause are a genuine pre-estimate of the loss that KEC will suffer and are not by way of penalty, provided always that the above provisions are without prejudice to any other rights or remedies available to KEC under this Contract or otherwise at law.
- (e) Notwithstanding anything contained contrary herein, the time extension given by KEC to the Supplier shall not mean waiver of imposition of Liquidated Damages by KEC.

## 14. PERFORMANCE BANK GUARANTEE (applicable) as per clause no 6 Applicable

- 14.1 The value of the Performance Bank Guarantee (PBG) shall be ten (10%) of the value of the Contract.
- 14.2 At the request of KEC, the value of the PBG shall be enhanced if the upward variation in amount of the Contract is more than that specified in clause of Quantity Variation herein above. Similarly, KEC shall agree to reduce the value of the PBG if the downward variation is more than that specified in clause of Quantity Variation herein above.
- 14.3 Subject to the above clause, the value of PBG shall remain constant and unchanged i.e. 10% of the Final Contract value, until the expiry of PBG or any extended period, irrespective of part shipment/s made in pursuance of the Contract.
- 14.4 The PBG shall be valid for a period of 42 months. The validity shall be extended further for such required periods at the request of KEC, if in KEC's opinion such extension is necessary.
- 14.5 The PBG shall be issued from an Indian scheduled bank (other than cooperative banks) or Nationalized Banks or International Banks having branch/es in Mumbai.
- 14.6 The PBG shall be strictly in the format as given by KEC

## 15. WARRANTY ( back to back as per RFP)

### 15.1 The Supplier hereby represent and warrant to KEC that:

- (a) they have the power and authority to execute this Contract and to perform and observe all of the terms and conditions stated herein;
- (b) they have the right to sell the Goods free from all charges and encumbrances and that KEC will enjoy quiet possession of the Goods;
- (c) the Goods to be supplied will be brand new, unused (only pre-tested in shop floor) and free from any material defects and shall be of good workmanship in accordance with the technical specification as provided by Client;
- (d) the Goods shall comply with any sample of the Goods supplied to KEC, if any;

- (e) the Goods will comply with all statutory requirements and regulations including those relating to the safety, manufacture, packaging, labeling, transportation and sale of the Goods;
  - (f) the Goods does not infringe any patent, copyright, trademark or other proprietary rights.
- 15.2 The Supplier's obligation as to all the Goods under the aforesaid warranty shall be effective for a period of 84 months from the date of commissioning. This will be applicable also during the AMC / Extended Warranty period.
- 15.3 If during the aforesaid warranty period any Goods fails to meet the warranty as provided in above clauses and KEC informs the Supplier in writing the nature of such failure, the Supplier shall make good, replace or modify the Goods or part thereof with all possible speed at the Site. All the costs associated with such repair/replacement including all direct cost such as taxes, duties transportation, supervision of the Goods shall be borne by the Supplier.
- 15.4 If the Supplier does not repair and/or replace the defective or deficient Goods after receipt of notice from KEC within fifteen (15) days nor gives appropriate response within seven (7) days, then KEC shall have the right to repair or replace such part after a written notice to the Supplier at the Supplier's risk and costs.
- 15.5 If KEC incurs any service level penalties from the Client due to default in the Goods or services by the Supplier, then Supplier shall bear the service level penalties on back to back basis.

## 16. PAYMENT TERMS

- 16.1 Refer the Terms & condition of clause no 05.

## 17. TAXES, DUTIES AND LICENSES

- 17.1 The Contract Price is inclusive of all taxes and duties including but not limited to GST, Custom duty, central excise duty, special duties and all various cess applicable to the Goods.
- 17.2 The Supplier shall be solely responsible for filling all statutory returns and to ensure that all compliances with respect to taxes and duties are done in time. The Supplier hereby indemnifies the Purchaser for all losses, damages, costs, penalties which the Purchaser may suffer due to Suppliers default for not/under paying taxes, duties, cess and for non-furnishing of returns in time.
- 17.3 The Supplier shall be solely responsible for ensuring that all the licenses required in connection with the Supplies of the Goods shall be obtained by the Supplier at its own costs and the same shall be valid and subsisting during the currency of the Contract.
- 17.4 The Supplier also hereby indemnifies the Purchaser for all the penalties in the hand of the statutory authorities which is levied on the Purchaser for the default of the Supplier

## 18. INDEMNITY

The Supplier shall indemnify KEC and each of KEC's employees, authorized representatives and agents from and hold each of them harmless against any and all claims, damages, actions, demands and proceedings by any person whatsoever against KEC including any (i) personal injury and death to any personnel or for any damage to any property resulting from any and arising out of and from any defect in the Goods or (ii) any

inaccuracy and breach or non-fulfillment of any of the representations or warranties made by the Supplier in this Contract or (iii) any liability which KEC may incur to any other person whatsoever and against all claims, demands, proceedings, damages, costs and expenses made against or incurred by KEC for reason of any breach of the Contract by the Supplier.

#### 19. DOCUMENTATION ( If any)

The Manufacturer/Supplier shall submit the following documents as per the following schedule.

Sr. No	Document	Submittal
1	Invoice	
2	Packing list	
3	Delivery Challan	
4	Test Certificates	
5	Inspection Certificate	
6	Approved Drawings	
7	Insurance Certificate	
8	Warranty Guarantee Certificate	
9	Acknowledge Lorry Receipt	

#### 20. TERM

This Contract will take effect from the date of issuance of this PO and will in continue in full force and effect until one month after expiry of period of warranty / AMC / one month after final acceptance certificate issued by KEC / Client, whichever is later or until otherwise terminated in accordance with this Contract.

#### 21. CHANGE IN LAW

Any changes in law, rules, regulations, by-laws, or the interpretation of the same by the Courts of competent jurisdiction having the authority regarding the effect of changing the Taxes, Duties etc. shall be to the account of the Supplier.

#### 22. DEFAULT, SUSPENSION AND TERMINATION

##### 22.1 Suspension by KEC

KEC may at any time suspend the Contract for any reason whatsoever. Upon receipt of a notice of suspension the Supplier must cease the supply of Goods in accordance with the directions received and must immediately recommence the supply of the Goods when written directions to do so are received by the Supplier from KEC.

##### 22.2 Termination by Force majeure Event

If by reason of a Force Majeure Event the Supplier is prevented from performing any part of this Contract for a continuous period of ninety (90) days or more, KEC may at any time thereafter terminate this Contract by written notice to the Supplier with immediate effect.

##### 22.3 Termination by KEC

- (a) Without prejudice to its other rights or remedies under this Contract or at law, KEC may terminate this Contract if:
  - (i) the Supplier fails to deliver the Goods to the Site by the delivery date(s); or
  - (ii) the Supplier is in breach of any other of material obligations under this Contract (other than breach stated above and if the breach is not capable of being remedied or the breach is capable of being

- remedied and the Supplier fails to remedy the breach to KEC's satisfaction within fifteen (15) days after notice in writing has been given to the Supplier requiring such breach to be remedied; or
- (iii) the Supplier file's a petition seeking protection under any applicable bankruptcy laws or an action by third party seeking such protection is filed against the Supplier.
- (b) Notwithstanding any other provision of this Contract, KEC may terminate this Contract at any time without assigning any reason by providing thirty (30) days written notice to the Supplier.
- (c) The termination of the Purchase Order in accordance with this clause shall neither relieve the Supplier of its accrued obligations for Warranty or Latent Defects or its accrued liability to pay Liquidated Damages for Delay and/or Performance nor shall entitle him to reduce the value of Performance Guarantee

#### 22.4 Suspension and termination payment

- (a) If this Contract is suspended as stated above, then all payments under this Contract will be suspended until the work under this Contract is resumed.
- (b) If the Contract is terminated as per clause 25.3 (b) KEC will pay to the Supplier all amounts for the Goods supplied and accepted by KEC up to the date of termination. provided such Goods meets the necessary technical requirements as per this Contract.
- (c) If the Contract is terminated in accordance with clause 25.3 (a) then the KEC shall not be liable to make any further payments to Supplier until the cost of execution and all other expenses incurred by the KEC in completing the supplies have been ascertained (herein called "the Cost of Completion"). If the Cost of Completion when added to the total amounts already paid to the Contractor as at the date of termination exceeds the Contract Price, the Supplier shall upon demand pay to KEC the amount of such excess. Any such excess shall be deemed a debt due by the Supplier to KEC and shall be recoverable accordingly. If KEC completes the Supplies and the Cost of Completion plus the amount properly allocable to the Goods supplied by the Supplier up to the date of termination are less than or equal to the Contract Price, the Purchaser shall pay Supplier an amount properly allocable to Goods supplied by Supplier prior to termination for which payment was not made to Supplier.

22.5 KEC may upon such termination complete the Supplies himself and / or by employing any other contractor. KEC or such other contractor may use for such completion such of the documents made by or on behalf of the Supplier, as they may think proper. Upon completion of the supplies, or at such earlier date as KEC thinks appropriate, KEC shall give notice that the Suppliers documents will be released to the Supplier. The Supplier shall remove or arrange removal of the same from such place without delay and at its cost

### 23. INTELLECTUAL PROPERTY RIGHTS

- 23.1 The Supplier hereby warrants to KEC that the Goods or its parts to be supplied by the Supplier does not infringe any patent and/or intellectual property rights existing validly as of the date of delivery of the Goods.
- 23.2 The Supplier agrees to defend at its own cost any suit proceeding brought against KEC based on a claim raised by third parties that any Goods/part of the Goods constitute an infringement of any such patent and/or intellectual property.

### 24. FORCE MAJEURE

- 24.1 A "Force Majeure" means an event or circumstance or combination of events and circumstances beyond the reasonable control of the Party that wholly or partly prevents or unavoidably delays an affected Party in the performance of its obligations under the Contract, which amongst other, include Act of God, Natural calamity, war, terror, strike (except of Supplier's employees) etc.
- 24.2 If either Party is prevented from performing any of its obligations under the Contract by such cases of Force Majeure, it shall give written notice to the other Party within fourteen (14) days of such occurrence, describing the event supported by authentic documents, along with the extension of time, if any, required by it to perform its obligations under this Contract.
- 24.3 All the activities under the Contract shall be deferred and the affected Party shall be wholly or partially



excused from performance of such obligation the time for the performance of the Contract shall stand extended accordingly. No Party shall have any claim for any losses incurred or damages suffered due to the Force Majeure events.

24.4 The affected Party shall use all reasonable efforts to minimize any delay in its performance of the Contract as a result of Force Majeure events and shall keep the other Party duly informed.

24.5 In case of the inability of the affected Party to perform the Contract for a period of more than ninety (90) days due to Force Majeure events, then both the Parties shall mutually discuss and decide whether to:

- a. continue the Contract on same terms and conditions or
- b. renegotiate and continue the Contract with fresh terms.

24.6 In case no mutual consensus is arrived at between the Parties within thirty (30) days from the date of expiry of the ninety (90) day period referred in clause above as to continuance of the Contract, then the non-affected Party may terminate this Contract by giving seven (7) days written notice to the other Party and the payments if any, shall be made as stated in clause 25.4 (b) Termination Payment .

Notwithstanding anything contained herein, the events or circumstances that shall not constitute Force Majeure with respect to the Supplier are:

- a. late delivery to Supplier of machinery, Goods, spare parts or consumables, unless due to an act or omission of Purchaser;
- b. Delay in the performance of any Supplier's sub-supplier and/or sub-contractor or another third party;
- c. Normal wear and tear of and random flaws in materials and Goods or breakdowns in Goods;
- d. Unavailability of funds;
- e. Adverse weather conditions;
- f. Strikes by Supplier's personnel or labour disturbances involving Supplier's personnel;
- g. Failure to perform the supply caused by Supplier's negligent or intentional acts, errors or omissions or breach of, or defaults under the Purchase Order.

## 25. RISK PURCHASE

In case of any failure by the Supplier to supply the Goods as per the specifications and within the agreed time scheduled or in case the Supplier commits any breach of the terms of this contract, KEC reserves the option to cancel the order and procure the Goods and/or service, without any additional liability to KEC, from any other source acceptable to the Client/KEC and at the risk and cost of the Supplier

## 26. CONFIDENTIALITY

Throughout the term of this Contract and for a period of 6 years after its termination or expiry, the Supplier shall maintain strict confidentiality of the information/data of KEC that is disclosed to the Supplier and shall not disclose such confidential information/ data to any third party without the prior written consent of KEC. The Supplier may however disclose the confidential information to its employees, directors, officers, who have a need to know such confidential information in connection with the execution of the Contract.

## 27. GOVERNING LAW AND SETTLEMENT OF DISPUTES



#### 27.1 Governing Law

This Contract shall be governed by and construed in accordance with the laws of India and the courts at Mumbai shall have exclusive jurisdiction in relation to the interim reliefs as provided under the Arbitration and Conciliation Act, 1996.

#### 27.2 Settlement of Dispute

Any dispute, controversies and differences which may arise between the Parties hereto in, relation to or in connection with this Contract shall be settled amicably by the Parties through mutual discussions, within a period of thirty (30) days from the date of receipt of a written notice of such dispute by a Party from the other Party, failing which the dispute shall be referred and settled through arbitration proceedings under the Arbitration and Conciliation Act, 1996 by an arbitral tribunal consisting of a sole arbitrator. The arbitration proceedings shall be conducted in English, the seat and venue for the arbitration proceedings will be Mumbai and the award given by the arbitral tribunal shall be final and binding. The costs, charges, fees and expenses of the Arbitrator shall be borne equally by the Parties. The Parties shall bear their own legal and other costs pertaining to the arbitration proceedings. Both parties hereto agree that Supplier shall be obliged to carry out Supplier's obligations under the agreement even in the event a dispute is referred to Arbitration. It is further clarified that KEC shall be entitled to retain payment only related to subject matter under arbitration.

### 28. LIMITATION OF LIABILITY

28.1 Notwithstanding anything contrary contained herein, the aggregate liability of the Supplier whether under the contract, tort (including negligence) law or otherwise, shall be 2.5 times the total Contract price. However, Purchasers liability under the Contract shall be 100 percent value of the total Contract price under this Contract.

28.2 Clause 31 does not limit the liability of the Supplier:

- (a) arising due to breach of terms and condition of this Contract;
- (b) arising from the infringement of intellectual property rights;
- (c) in cases of death or personal injury resulting from the negligence, willful act or breach of this Purchase order by the Supplier;
- (d) in cases of third-party property damage, unless attributable to any negligence, willful act or breach of this Purchase Order by the Supplier (excluding damage to the Goods );
- (e) in cases of fraud, fraudulent misrepresentation, gross negligence, corrupt Acts, willful misconduct or illegal or unlawful acts;
- (f) from liability arising from any failure to pay (promptly or at all) any taxes;
- (g) the cost incurred by the KEC to get the work done by the third party due to fault or negligence on the part of the Supplier.
- (h) to the extent that liability cannot be excluded under applicable Law.

31.4 Notwithstanding any other provision contained in this Purchase Order to the contrary, neither Party nor its agents and subcontractors shall be liable to the other Party, its agents and subcontractors, for any indirect, incidental or consequential damages, including loss of profit or revenues, loss of interest payments, loss of interrupted production, cost of downtime, etc.

### 29. MISCELLANEOUS

#### 29.1 Relationship of the Parties

Unless this Contract expressly provides otherwise, nothing in this Contract may be construed as creating a relationship of partnership, or a joint venture or of principal and agent or of trustee and beneficiary between the Parties. For the purpose of this Contract the Supplier shall be an independent contractor and will have no authority to enter into any contractual obligations in the name and on behalf of KEC.

#### 29.2 Entire Understanding

This Contract including all annexure attached herewith embodies the full and complete understanding of the Parties relating to the subject matter hereof and supersedes all former understandings, proposals, writings, representations, authorizations, contracts, written or oral relating to the subject matter hereof.

#### 29.3 No Adverse Construction

This Contract is not to be construed to the disadvantage of a Party because that Party was responsible for its preparation.

#### 29.4 No waiver

- (a) A failure delay, relaxation or indulgence by a Party in exercising any power or right conferred in the Party by this Contract does not operate as a waiver of such power or right.
- (b) A single or partial exercise of the power or right does not preclude a further exercise of it or the exercise of any other power or right under this Contract.
- (c) A waiver of a breach does not operate as a waiver of any other breach.

#### 29.5 Severability

If any of the terms and conditions of this Contract shall become unenforceable for any cause or reason whatsoever, the ensuing lack of enforceability shall not affect the other provisions hereof, and in such event the parties hereto shall endeavor to substitute forthwith such other enforceable provision as will most closely correspond to the legal and economic contents of the said terms and conditions.

#### 29.6 Subcontracting

The Supplier shall not sub-contract or assign the whole or part of their obligations under this Contract without KEC's written consent and such consent if given, shall not in any way whatsoever relieve the Supplier from any liability or obligation under this Contract.

#### 29.7 Notices and Communication

Any notice, communication, statement, request or correspondence required under the Contract shall be in writing, in English language and shall be delivered personally, or by courier or by registered mail to the address of the Parties mentioned hereinabove, or such other address as may be notified by the concerned Party to the other Party.

#### 29.8 Order of precedence and conflict in documents

All the annexures attached to this Contract and forming an integral part of this Contract are to be taken as mutually explanatory to one another. However, in case of conflict/contradiction between the annexures and clauses of this Contract, provisions in the Contract shall prevail.

#### 29.9 Amendment

This Contract may be amended in writing as may be mutually agreed between the Parties and which shall be duly signed by the authorized representative of the Parties.

#### 29.10 Set off:

In the event of any amount becoming recoverable under the Contract, from and payable by the Supplier to Purchaser, Purchaser shall be entitled to recover such amount by deducting in part or in whole from any sum payable or thereafter becoming payable to the Supplier by Purchaser, either under this Contract or under any other agreement with the Supplier. In the event that the amount so deducted by Purchaser is not sufficient to cover the full amount recoverable by Purchaser, the Supplier shall on demand by Purchaser make immediate payment of such remaining amount to Purchaser.

#### 29.11 Audit:

For the purposes of audit, Supplier shall keep all documents relating to the Contract for a period of 5 (five) years from the expiration of the warranty period. Purchaser, and its representative or agents shall have the right during

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normal business hours to examine and copy all documents of Supplier that are pertinent to the Contract. Supplier shall obtain equivalent rights of audit as those specified above from its sub-vendor and / or sub-contractors.

#### 29.12 Survival

Termination of this Contract will not affect clauses on Indemnity, Intellectual Property Right, Force Majeure, Confidentiality and Governing law & Settlement of dispute and other clauses which are of survival in nature shall survive on expiry or termination of this Contract.

This Contract is issued to you in duplicate. Please return one copy duly signed and stamped on each page within 3 working days on receipt of this Contract. In case we do not receive your written acknowledgement within 3 working days, we will treat this Contract as unconditionally accepted at your end.

#### 29.13 Right to modification of Terms and conditions:

The Company reserves the right to modify/alter/change all or any of these terms & conditions at any time w/o giving any notice or reasons whatsoever and same would be binding on all parties

## Annexure 3: Tech Specification and Compliance and BOM Details

### BOM DETAILS OF PER SET

SI No	General Details	Qty in (Set/Nos)	Total Qty (Set/Nos)	Bill of Material (BOM)
1	Data Centre (DC), (120 min backup)	1Set	6set (12Nos)	<b>40 KVA</b> High Performance With Input Isolation transformer with Delta to Star Configuration IGBT/PWM based True- On-Line Double Conversion Microprocessor Controlled UPS system in Parallel Mode.3 Phase Input & 3 Phase Output With Isolation Transformer
		128	768 Nos	12V,200 AH SMF ,64 Nos X 2 Battery Bank =128 Nos of Batteries
		1 Set	6 set	Accessories (SNMP Card, Battery Interconnecting Cable and Powder Coated 8 Nos M.S Rack with DC MCB)
2	Ground Defence Command Control (GDCC) (60 min backup)	1 set	6 set (12Nos)	<b>10 KVA</b> High Performance Input Isolation transformer with Delta to Star Configuration IGBT/PWM based True-On-Line Double Conversion Microprocessor Controlled UPS system in Parallel Mode.3 Phase Input & 3 Phase Output With Isolation Transformer
		40	240 Nos	12V,100 AH SMF Batteries ,20 Nos X 2 Battery Bank =40 nos of Batteries
		1 Set	6 set	Accessories (SNMP Card Battery Interconnecting Cable and Powder Coated 2 Nos M.S Rack with DC MCB)
3	Perimeters (Field UPS) (30 min backup)	1 Nos	48 Nos	<b>10 KVA</b> High Performance Input Isolation transformer with Delta to Star Configuration IGBT/PWM based True-On-Line Double Conversion Microprocessor Controlled UPS system. 3 Phase Input & 1 Phase Output With Isolation Transformer
		16	768 Nos	12V,75 AH SMF Batteries ,16 NosX 1 battery Bank = 16 Nos of Batteries
		1 Set	48 set	Accessories (Battery Interconnecting Cable and Powder Coated 2 Nos M.S Rack with DC MCB)

**M/s.Switching AVO Electro Power Limited do hereby confirm to KEC that, the following works are under scope of M/S Switching AVO Electro Power Ltd.**

Supply of following Items :-

RFP Desc	UoM	Bhuj	Naliya	Jamnagar	Adampur	Bhatinda	Halwara	Grand Total
2*40 KVA UPS (120 min backup)	Set	1	1	1	1	1	1	6
2*10KVA UPS (60 min backup)	Set	1	1	1	1	1	1	6
1*10KVA UPS (30 min backup)	Nos	6	8	8	8	8	10	48
<b>Grand Total</b>		<b>8</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>12</b>	<b>60</b>

Initially perimeter UPS room was to have 1 UPS, whereas, post revision of qty, perimeter UPS Room would have 2 UPS with independent battery racks. UPS provided for DC, GDCC and Perimeter are required to operate in parallel as normal mode of operation, thereby sharing the load. In the event of 1 UPS failing, the second UPS should take over the complete load.

Scope of Work for Switching AVO as follows: -

Supply of UPS, Batteries, battery racks with 2 years' warranty and 5 years of CAMC

1. Installation and commissioning of all UPS. All cables and accessories required for installation and commissioning would be in OEM Switching AVO scope.
2. Connection of UPS to AMF Panel would be in OEM Switching AVO scope.
3. Proving of UPS operations, ie, parallel mode of operation and proving of taking over of load by 1 UPS with other UPS shutdown for all locations to BEL and End Client.
- 4) Battery rack dimensions will be as per the details shared earlier by KEC Project team to Switching AVO as all room dimensions have been finalized with end Client.

Sr	Item	Compliance		
TECHNICAL PARAMETERS OF UPS (DATA CENTER & GDCC)				
C.1	Type	Phase		3-phase
		Parallel run option		Available
		Cut-in	Operation	Automatic
			Occasion	When input voltage is outside 415 ± 5%
				When input frequency is outside 50 ± 2 %
C.2	Input	Source		Commercial supply
		Voltage (V)		415 ± 5%
		Frequency		50 ± 10 %
		Power factor		> 0.98 at 100% load
C.3	Output	Voltage (V)		415 ± 5%
		Frequency (Hz)		50 ± 2 %
		Rating		i) 40 KVA ii) 10 KVA
		Waveform		Sinusoidal
		Capacity in terms of back-up time (min)	GDCC	60 min
			Data Centre	120 min
C.4	Battery	Housing		Required
		Servicing requirement		Maintenance free
		Charging		
		(i) Ripple Current (%)		≤ 5
		(ii) Ripple Voltage (%)		≤ 1
C.5	Instrumentation	Metered Input/ Output Parameters		Current, Voltage, Frequency
		Status indicator		Stand-by, Bypass, Off, On, Load on battery, Battery on charge,
		Emergency indicator		Over temperature, Battery low, System overload, Output over/low voltage
C.6	General	Total Harmonic Distortion (THD)	For 100% linear load	Less than 3 %
			For 100% non-linear load	Less than 8 %
		Safety standard		EN 50091-1/ BS EN 62040-1- 2:2003
		Emission and Immunity		EN 50091-2 & CE
		Transient voltage recovery time to nominal voltage (ms)		Not more than 10
		Cooling		Forced air
		Indication	Metered Parameters	Current
				Ampere-Hour
				Voltage
				Frequency
				Battery temperature
		Static by-pass switch	Type	Automatic & Manual
				Overload beyond rating

Sr	Item	Compliance		
			Event for auto operation	Battery run time expiry/ failure
				Inverter failure
<b>TECHNICAL PARAMETERS OF UPS (PERIMETER SENSORS)</b>				
D.1	Type	Phase	1-phase	
D.2	Input	Source	Commercial supply	
		Voltage (V)	230 $\pm$ 20%	
		Frequency	50 $\pm$ 10 %	
D.3	Output	Voltage (V)	230 $\pm$ 5%	
		Frequency (Hz)	50 $\pm$ 2 %	
		Rating	10KVA	
		Waveform	Sinusoidal	
		Capacity	30 min	
D.4	Battery	Housing	Required	
		Servicing requirement	Maintenance free	
		Charging		
		(i) Ripple Current (%)	$\leq$ 5	
		(ii) Ripple Voltage (%)	$\leq$ 1	
D.5	Instrumentation	Metered Input/ Output Parameters	Current, Voltage, Frequency	
		Status indicator	Stand-by, Bypass, Off, On, Load on battery, Battery on charge,	
		Emergency indicator	Over temperature, Battery low, System overload, Output over/low voltage	
D.6	General	Total Harmonic Distortion (THD)	For 100% linear load	Less than 3 %
			For 100% non-linear load	Less than 8 %
		Safety standard	EN 50091-1/ BS EN 62040-1-2:2003	
		Emission and Immunity	EN 50091-2 & CE	
		Transient voltage recovery time to nominal voltage (ms)	Not more than 10	
		Cooling	Forced air	
		Indication	Metered Parameters	Current
				Ampere-Hour
				Voltage
				Frequency
				Battery temperature
		Static by-pass switch	Type	Automatic & Manual
			Event for auto operation	Overload beyond rating
				Battery run time expiry/ failure
				Inverter failure