



AI Engineering Services Limited

**NTA, NSCBI Airport,
Kolkata-700052**

Internal Tender Ref. No.: KOL-PUR/AIESL/NS/154-25

Date: 02-12-2025

NOTICE INVITING TENDER (NIT)

Bid Details Summary

SN	PARTICULARS	DETAILS
1.	Name of the Work	Tender for Supply & Commissioning of 1 no. of 115 Volt, 400 Hertz AC Frequency Converter Unit for A320/B737 family Aircrafts for AIESL, NSCBI Airport, Dum Dum, Kolkata-700052, West Bengal.
2.	Earnest Money Deposit	Rs 62,000.00
3.	Security Deposit	5% of Contract Value
4.	Availability of bidding documents	Can be downloaded from www.aiesl.in and available on GeM
5.	Tender document Fee	NIL
6.	Last date, Time and place for receipt of bids	As per GeM notifications. Bids will be accepted through GeM only.
7.	Validity of the Offer	One Hundred Eighty (180) days from the last date of submission of Bid.

DISCLAIMER

- a) The information contained in this tender document (hereinafter referred to as the “Tender”) or and any information pertaining to the aforesaid subject matter provided subsequently to the applicants/Bidders in any form by AI Engineering Service Limited (hereinafter referred to as AIESL) shall be subject to the terms and conditions to which such information is provided contained herein and any other terms and conditions as may be prescribed by AIESL prior to award of the Tender.
- b) The purpose of this Tender is to provide all Bidders with the information that may be useful to them in the formulation of their proposals/Bids (hereinafter referred to as “Bids”) in response to this Tender. The statements and facts contained herein, which reflect various assumptions and assessments arrived at by AIESL do not purport to contain exhaustive / all the information on the aforesaid subject matter that each applicant may require for the purpose of submitting their Bids.
- c) Each Bidder should conduct its own due diligence, investigations & analyses and should check the accuracy, adequacy, correctness, reliability & completeness of the assumption, assessment & information contained in this Tender and shall obtain independent advice from appropriate sources, at no cost to AIESL.
- d) The information provided in this Tender to the applicants is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. AIESL accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.
- e) AIESL also accepts no liability of any nature whether resulting from negligence or otherwise, however caused arising from reliance by any applicant / Bidder upon the statements contained in this Tender.
- f) AIESL in its absolute discretion, but without being under any obligation to do so, may update, amend or supplement the information, assessment or assumption contained in this Tender, from time to time till the close date of the Tender.
- g) The Tender does not imply that AIESL is bound to select a Bidder or to appoint the Successful Bidder and AIESL reserves the right to reject all or any of the Bids or annul the tender process, without assigning any reason whatsoever at any time or abandon the procurement of Equipment and Services.
- h) The Bidder shall bear all its costs associated with or relating to the preparation & submission of its Bids including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by AIESL, or any other costs incurred in connection with or relating to in Bids. All such costs and expenses shall remain with the Bidder and AIESL shall not be liable in any manner whatsoever for the same or any other costs or other expenses incurred by the Bidder in preparation for submission of the bid, regardless of the conduct or outcome of the bid selection process as contained herein.



AI ENGINEERING SERVICES LIMITED

(A Govt. of India Undertaking)

Eastern Region, New
Technical Area NSCBI
Airport, Kolkata-700052
Website: www.aiesl.in

Bid Specific Additional Terms and Conditions for the Supply & Commissioning of 1 no. of 115 Volt, 400 Hertz AC Frequency Converter Unit for A320/B737 family Aircrafts for AIESL, NSCBI Airport, Dum Dum, Kolkata-700052, West Bengal.

AIESL Kolkata Base invites bids under TWO-Bids System i.e. Technical Bid and Price Bid through the Government e-Marketplace (GeM) portal for the procurement of 115 Volt, 400 Hertz AC Frequency Converter (Qty. 01 unit) for A320/B737 family Aircrafts.

Eligible and interested bidders/tenderers are requested to submit their bids in accordance with the terms and conditions mentioned below.

Sr. No.	Description	Requirement
1.	Equipment Type	Trolley mounted Static 90 KVA, 200/115V, 400 Hz, 3 Phase Frequency Converter for A320/B737 family Aircraft Electric Power Supply – Required Quantity – 01 (one) unit
	Supply Input Power	
2.	Input Voltage	415 Volt RMS \pm 10%, 3 Phase, 50 Hz
3.	Phase Rotation	Any: Automatic phase lock for ABC or CBA supply rotation
4.	Inrush current	Less than 2% of full load current
	Output Power	
5.	Output voltage	AC 200 V Phase to Phase, AC 115V Phase to Neutral (\pm 1%)
6.	Output frequency	400 Hz \pm 0.01%
7.	Voltage	\pm 1% Maximum



Sr. No.	Description	Requirement
	regulation	
8.	Voltage modulation	$\pm 0.5\%$ Maximum
9.	Voltage balance	Within $\pm 1\%$ for Balanced Loads Within $\pm 2\%$ for 25% Unbalanced Loads
10.	Phase separation	$120^\circ \pm 1^\circ$ for Balanced Loads $\pm 3^\circ$ for 25%
11.	Voltage trim adjustment	$\pm 5\%$ of nominal voltage
12.	Crest factor	$1.414V \pm 0.05 V$
13.	Overload capacity	110% for 1 hour 125% for 10 minutes 150% for 20 seconds 200% for 10 seconds 300% for 6 seconds
14.	Output power rating	90 KVA continuous duty 0.8 power factor lagging
15.	Total harmonic distortion	Total 2% maximum Single 1% maximum
	Environmental specifications	
16.	Ambient temperature range	Operating: 0 to $50^\circ C$ Storage: $-10^\circ C$ to $70^\circ C$
17.	Humidity	10% to 100% with condensation
18.	Audible noise level	Less than 68 dba @ 2 meters



Sr. No.	Description	Requirement
	Metering, Indicators & Controls	
19.	Parameters to display	LCD/Digital – Output voltage, output ammeter, output frequency, elapsed time
20.	Operating controls	Main ON / OFF MCCB; Load ON / OFF Push Button; Test Mode / Aircraft Mode Selector
21.	System indicators	a. Mains R, Y, B – LED b. Output U, V, W – LED c. Load - ON LED
22.	Protection indicators	a. Output Under / Over voltage b. Output Overload / Short circuit c. Input Over / Under Voltage d. Input phase fail / reversal e. Over temperature f. Audible alarm
23.	Protections	a. Output Under / Over voltage b. Output Overload / Short circuit c. Input Over / Under Voltage d. Input phase fail / reversal e. Over temperature



Sr. No.	Description	Requirement
		f. Output phase reversal
	Other Features	
24.	Interlocking	28 V DC supply to provide interlock signal to output contactor in Test Mode
25.	Flasher & Lights	At least one Flasher to indicate unit in operation status and two LED flood lights not less than 40 watts each shall be provided on top of the SFC unit.
26.	Environmental protection	Compliant with at least IP55 standards
27.	Trolley & Accessories	<p>Specifications for the trolley on which the Static 90 KVA Frequency Converter will remain mounted -</p> <ul style="list-style-type: none"> a. Trolley made of MS channel base frame mounted on four solid non-marking wheels of adequate capacity. b. The trolley is to be designed for towing by tractor or platform truck with maximum speed of 20 kmph. c. Canopy on top for all weather condition. d. Separate cable drums for incomer and output cables shall be provided with proper stoppers to avoid movement or rotation of drums during trolley movement. Handles shall be provided on the drums for winding the cables. e. Tow hook/handle shall be provided with swivel front wheels for ease of movement and towing.



Sr. No.	Description	Requirement
		<p>f. Brakes: Trolley to be provided with a tow handle lowering of which should engage the brakes for the trolley at the front wheels.</p> <p>g. Metal chokes shall be provided for each wheel as stopper to avoid unnecessary movement of trolley when parked.</p> <p>h. Trolley to have adequate suspension system to take the load of the SFC and the cable drums with cables.</p> <p>i. All items including the SFC, trolley etc. to have proper painting.</p> <p>j. The trolley and/or the SFC unit to have lifting provision.</p>
	Cables	
28.	Input cable (main supply panel to unit)	<p>Cable Length – 50-meter, 4 x 1 core, 50 sq. mm rubberized copper cable for main power & 50 meter, single core, multistrand & 10 sq. mm rubberized copper cable for earthing. The cables are to be bound together in cloth/ woven/ PVC cover with one end fitted with a Mains Plug (Male) connector for connection to Mains Distribution Panel Socket (Female). The second end is to have copper lug for termination at the SFC unit. Both the plug and socket are to be supplied by the successful vendor.</p>
29.	Output cable (unit to aircraft)	<p>Cable Length – 50-meter, 4 x 1 core, 70 sq. mm rubberized copper cable for main power and 2 core 2.5 mm sq. rubberized copper cable for E & F signal. The cables are to be bound together in cloth/ woven/ PVC cover. One end is to be fitted with 6 PIN NATO</p>



Sr. No.	Description	Requirement
		connector (Female) (Anderson Airmotive make only) for connection to Aircraft. The second end will have copper lugs for SFC termination.
30.	Standards	<p>DFS400 - Specification for 400 Hz aircraft power</p> <p>ISO 6858 - Aircraft ground support electric supplies</p> <p>IEC 60529 - Degrees of protection provided by enclosures (IP Code)</p>

1. **Mode of Procurement:**

The procurement process shall be conducted through the **Government e-Marketplace (GeM) Portal** in compliance with GeM norms and General Financial Rules (GFR) of the Government of India.

2. **Delivery, Installation, Commissioning & Acceptance:**

- The final supply, installation, commissioning & testing is to be completed within 90 days from the date of placement of order.
- The supplier shall be responsible for the transportation and safe delivery of the Frequency Converter to AIESL Kolkata Base.

Delivery type: Delivered Duty Paid (DDP) at the below-mentioned address-

The goods shall be consigned in the name of consignee viz
Dy. General Manager (PPMM),
AI Engineering Services Ltd.
New Technical Area / Maintenance Hangar,
NSCBI Airport, Dum Dum
Kolkata – 700052, India

- The supplier shall install the Frequency Converter at the designated site and ensure it is operational.
- The supplier shall conduct a full test run to verify the Frequency Converter's performance (on A320/B737 family aircrafts & with load bank).



- e) The supplier shall provide necessary on-site training to AIESL personnel regarding the operation and maintenance of the Frequency Converter. The training should cover the units' operations, maintenance and troubleshooting procedures, safety systems, information about Do's & Don'ts & all other areas which are necessary for smooth functioning of the machines.
- f) The supplier shall ensure proper calibration and setup of all parameters as per OEM recommendations.

g) **Acceptance:**

Upon commissioning of the power supply units, vendor shall demonstrate at site, trouble free operation of the power supply units in supplying electrical power to A320/B737 family aircrafts, per the specifications, for at least 30 days, based on which the final acceptance of the power supply units will be given.

h) **PACKING & MARKING:**

The Equipment should be so packed to withstand the hazards normally encountered with the means of transport, including loading and unloading operation. Fragile items should be packed with special packing materials depending on the type of material. All protrusions shall be suitably protected. The successful bidder shall be held liable for all damages or breakages to the Machine(s)/Equipment(s) due to defective or insufficient packing.

All packages should be marked for easy identification

3. SPECIAL TERMS & CONDITIONS:

- i. In case of unsatisfactory performance of the successful tenderer (s) either in relation to quality of material or adherence to delivery schedule, Company reserves its right to cancel part or whole of the order and forfeit such amounts, as the Company may deem reasonable due to the loss of goodwill, business and goods due to such unsatisfactory performance, from the security deposit (s)/EMD deposited by the successful bidder.
- ii. **Pre-delivery Testing & Inspection:**

The power supply units shall function to such capacities and / or outputs as defined in the specifications and shall meet the specifications prescribed in the technical specification. The bidder shall carry out all the relevant test, adjustments and inspection before dispatch of the machines (and submit test certificate and relevant documents to this effect).

Pre-delivery inspection by AIESL, if done, shall not relieve the bidder from his overall responsibility to satisfy all design requirements and performance as specified and to corroborate the performances through all necessary inspection and tests as specified. The approval of Purchaser or passing of any inspection or test shall not prejudice the right of the Purchaser to reject the equipment if it does not comply with the specifications when installed or give complete satisfaction in service.
- iii. Wherever deemed necessary, AIESL may seek clarifications on any aspect from the Tenderer.
- iv. It is the responsibility of the successful Bidder to obtain necessary approval/ clearance from statutory organizations wherever applicable for the equipment/ systems under the scope specified.



4. Warranty and After-Sales Support:

- a) The supplier shall provide at least **one-year warranty** for the Frequency Converter from the date of successful commissioning and acceptance by AIESL authority.
- b) The supplier shall provide after-sales support, including troubleshooting assistance and spare parts availability during the warranty period.
- c) The supplier shall provide full after-sales support during the warranty period, including troubleshooting assistance, preventive and corrective maintenance, replacement of defective parts, software or firmware updates (where applicable), and assured availability of spare parts for the entire duration of the warranty term. OEM must provide written assurance for **spare parts availability for at least 10 years** post-supply.
- d) Bidder must provide OEM-authenticated documents confirming warranty coverage, service centre availability, spare support, and response commitments.
- e) In the event of any deviation / non-performance as per technical specification, the successful bidder will ensure repairing of the equipment / defective part(s) failing which will give free replacement with new machines or replacement of defective parts or adjust the proportionate claim from the retention money/Performance Guarantee.
- f) All replacement equipment/parts during the warranty period shall be supplied by the Successful tenderer, free-of-cost at AIESL, NSCBI Airport, Dum Dum, State – West Bengal. All defective parts shall be returned by Purchaser to the Successful tenderer, if requested, on Freight to pay basis. Should the Successful tenderer fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost (including freight, insurance etc.) of the successful tenderer the whole or any portion of the defective parts.

5. Terms and Conditions:

- a) The Frequency Converter's brand and model must be with current version and meet all the specified parameters as outlined in the Specification table.
- b) The bidder shall complete the supply & commissioning of the item within the stipulated delivery schedule (i.e. 90 days from the date of placement of order) otherwise penalty/LD shall be applicable as per the terms of the tender. Non-acceptance of the delivery schedule will lead to the disqualification of the bidder.
- c) Our payment terms is 30 days credit. Payment shall be made after submission of undisputed bill after successful commissioning and acceptance by AIESL authority. Non-acceptance of the payment terms shall lead to the disqualification of the bidder.
- d) The payments shall be made after deduction of all applicable taxes and duties.



- e) Any deviation from the specified parameters must be approved by AIESL prior to delivery.
- f) AIESL reserves the right to accept or reject any bid and annul the Bid process without assigning any reason.
- g) Bid validity is 180 days from the date of opening of bid.
- h) For providing repairing services inside the hangar during the warranty period, it will be the responsibility of the successful L1 bidder to arrange AEP passes for their personnel and material at their own cost. AIESL will provide the necessary support if required by the successful L1 bidder.
- a) The successful bidder has to bring tools tackles and other facilities, during the course of the commissioning/repairing job.
- b) The successful bidder must ensure the adherence to the law of land applicable in the state of West Bengal. AIESL will not be responsible for any damage to man or material deployed by the successful L1 bidder to work at AIESL's premises.
- c) The successful L1 bidder shall be solely responsible for the acts and deeds of their personnel deployed by them for the job. AIESL will, in no way, be responsible for violation of any rules/regulations/instructions of the concerned agencies and/or for any loss or damage caused by their personnel to AIESL and/or third party and any such loss or damage shall have to be compensated/borne by the successful L1 bidder.
- d) The successful L1 bidder shall at his own risk and cost ensure that their employees deployed to carry out the work of AIESL are insured against all attendant risks that may be associated with the job.
- e) The successful bidder shall indemnify AIESL for any loss or damage to their property, equipment or personnel directly or indirectly arising out of or resulting from the negligence of the personnel deployed by the successful L1 bidder. Any loss or damages caused to the AIESL's property, equipment and personnel due to their operation/repair/maintenance job will be recovered from the pending bills/ security deposit of the successful L1 bidder.
- f) Compliance of Security Regulations:

The successful vendor should ensure verification of character and antecedents of their personnel by Police before deployment, since AIESL is "protected industry" and Airport is "protected area". Every employee's photograph, copy of police verification of character and antecedents and contractor undertaking to be furnished to Regional Security Officer, AIESL, NTA, Dum Dum, Kolkata, if required.

The contractor shall ensure that all the safety and security regulations of AIESL, BCAS, Airports Authority of India or any other agency associated with Airports activity are strictly adhered to and complied with by personnel deployed.



Any violation of security regulations and indulging in illegal activities by his personnel will be at the cost/risk of Contractor.

6. Purchase Preference Policies of the Government

AIESL reserves its right to grant preferences to the following categories of eligible Bidders under various Government Policies/ Directives subject to submission of valid certificate under specific category and related field of product for which tender is floated:

- a) Bidders from Micro and/ or Small Enterprises (MSEs) under Public Procurement Policy for the Micro and Small Enterprises (MSEs) Order, 2012 as amended from time to time.
- b) Start-ups Bidders under Ministry of Finance, Department of Expenditure, and Public Procurement Division OM No F.20/212014-PPD dated 25.07.2016 and subsequent clarifications.
- c) Purchase preference to make in India would be provided in line with the Letter no. P45221/2/2017-PP (BE-II), dated 16th September 2020, issued by Public Procurement Division, Department of Investment and Internal Trade, Ministry of Commerce, Government of India as amended from time to time.

7. Earnest Money Deposit (EMD)

- (a) The bidders shall deposit along with the technical bid, an Earnest money of Rs.62,000.00 (Rupees Sixty-Two thousand only) through payment gateway method to the AIESL's bank account, details mentioned below and upload the proof of deposit along with the technical bid. The Earnest money deposit will be refunded to the Bidders, whose offers have not been accepted. Earnest Money Deposit of the successful Bidders, whose offer is accepted will be kept until the time, the Bank Guarantee/ Security Deposit is not received.

Process to follow for submission of Earnest Money Deposit as below:

1. Visit AIESL website www.aiesl.in
 2. Choose “**Payment**” option at the bottom of the site screen
 3. Choose “**Vendor**” option
 4. Fill up relevant compulsory fields to proceed further for requisite EMD amount payment.
 5. Take screen shot/print out after successful payment made.
- (b) Tenders without the EMD shall be rejected.
 - (c) In case a bidder withdraws his bid during the process of evaluation of tender, or fails or refuses to accept the contract if awarded in his favor, the Earnest Money Deposit will be forfeited.
 - (d) EMD of the bidders, who do not qualify in the ‘Technical Bid’, will be refunded to them within two months of the award of contract.
 - (e) EMD in respect of the successful bidder can be adjusted against Security Deposit/ Performance Bank Guarantee.
 - (f) **Exemption from submission of Earnest Money Deposit (EMD):**

As mentioned in Section 7(4) of Ministry of MSME's Notification No.S.02119 (E) dated 26th June, 2020 an enterprise registered with any other organization under the ministry of MSME shall registered itself under Udyam Registration with effect from 01.07.2020, The **MSEs** registered under **Udyam Registration/NSIC under single point registration scheme/Public Sector**



Unit/Central/State Government Undertakings/Handicraft Boards, Khadi Village and Cottage Industries/ Social Welfare Organizations/Handicraft and Blind Associations/ Units registered with the Central Purchase Organizations (e.g. DGS&D) and Start-ups recognized by DPIIT are exempted from payment of Earnest Money Deposit (EMD). The valid MSME/Udyam Certificate or Start-up India certificate that is to be submitted by the vendor shall be of relevant current period, comprising of such similar nature of business as mentioned in Bid document.

8. Liquidated Damages:

In the event of delay in supplying beyond the delivery schedule as detailed in the P.O., the successful bidder will intimate the reason for such delay and seek extension of delivery date accepting liquidated damage @ ½ % of the order value per week or part thereof up to maximum of 10% of the order value. However, where LD is imposed and still the delivery is not done even after paying maximum LD, the supplier shall intimate the reasons for such delay in writing to AIESL management. In case the justification provided by the supplier is not accepted by AIESL, AIESL reserves the right to take any suitable decision in this regard including cancellation of the entire P.O. or part thereof.

9. Penalty:

During the warranty period, the successful vendor will be informed by AIESL about any snag/fault in the supplied unit. The successful vendor has to apply for Airport/Aerodrome Entry Permit (AEP) to attend the supplied unit at Kolkata airport within 2 working days of receiving such information. Subsequently, successful vendor has to attend the fault immediately on receiving the AEP. Any delay in applying for the AEP or delay in attending the fault immediately after issuance of the AEP, as described above, will attract a penalty of Rs.1000/- per day of delay which will be deducted from the Security Deposit /Performance Guarantee (SD) / (PG) or from any pending bill/invoice of the successful vendor. Penalty at the same rate will be imposed if the supplied unit is not made serviceable within 2 days for minor snags and within 5 days for major snags involving replacement of spares from the date of issuance of AEP to the successful vendor.

10. Price Preference for MSME:

Since tender item cannot be split or divided, etc. the MSE quoting a price within the band L1 + 15 % may be awarded for full/complete supply of total tendered value, subject to meeting technical specifications and willingness to match the L1 rate, by bringing down their price to L1 price in a situation where L1 price is from a Party other than an MSE.

Validity to avail Exemption / preferences shall be available only if:

- a) The MSEs registered or Start-ups recognized by DPIIT for the particular trade / item, for which the Tender is relevant, would be eligible for exemption/preference. However, the decision of AIESL on exemption/preference will be final and unchallenged.
- b) The registration certificate issued under Udyam Registration must be valid as on close



date of the Tender. The Successful Bidder should ensure that the same is valid till the end of the Contract period.

- c) The MSEs, who have applied for registration or renewal of registration under Udyam Registration but have not obtained the valid certificate as on close date of the Tender, are not eligible for exemption / preference.

11. Rate Negotiation:

It is not the general practice of “AIESL” to carry out Post Tender Negotiations. Therefore, Tenderers are advised in their interest to submit their best quotes in response to this Tender. “AIESL”, however, reserves the right to carry out negotiations after evaluation of Price bids in exceptional cases with the L-1 bidder.

12. Rejection of Bids (Technical-Bid & Price-Bid):

The Technical & Price-Bids received in response to this Tender will be rejected, without evaluation, on the following grounds:

- a) If the Technical-Bid and / or the Price-Bid (only of technically qualified Bidders) has been received after due date and time.
- b) If the Technical-Bid and / or the Price-Bid have been received by email.
- c) If the Technical-Bid and / or the Price-Bid have been received unsigned / incomplete.
- d) If the Technical-Bid and / or the Price-Bid have not been received.
- e) Price Bid received along with Technical Bid
- f) If the price bid is attached with the technical bid or if any type of price quote has been given in the technical bid.
- g) Tenders, not accompanying required information and documents are liable to be rejected. Any request for subsequent submission of any information / documents may not be entertained. However, AIESL can ask for information / documentation from the Bidders.
- h) Conditional Bids (Technical / Price-Bid) would not be accepted and shall be rejected.
- i) Bids not filled in the manner and as per formats, shall be rejected.
- j) Bids not fulfilling the Eligibility criteria as specified in the Tender shall be rejected during technical evaluation.
- k) In case both the Tender Forms, i.e. Part-A (Technical Bid) & Part-B (Price Bid of only technically qualified Bidders) not received in required format.
- l) If the Bids are submitted in different names.
- m) Ineligible Bids shall not be entertained, and the decision of AIESL in this regard would be final. No correspondence in the regard will be entertained.



n) Non-receipt of EMD if does not qualify for EMD exemption.

13. Security Deposit /Performance Guarantee (SD) / (PG):

The successful Tenderer will deposit 5 % of the total PO value, as Security Deposit/ Performance Guarantee with AIESL through payment gateway method to the AIESL's bank account. Detailed steps for SD/PG amount submission are mentioned below and upload the proof of deposit, within 2 (Two) weeks of issue of PO/Contract to ensure satisfactory performance of the supplied item.

Process to follow for submission of Security Deposit /Performance Guarantee (SD) / (PG):

- a) Visit AIESL website www.aiesl.in
- b) Choose “**Payment**” option at the below of the site screen
- c) Choose “**Vendor**” option
- d) Fill up relevant compulsory fields to proceed further for requisite SD amount payment.
- e) Take screen shot/print out after successful payment made

Alternatively, Bank Guarantee (BG) from a Scheduled Bank, in lieu of the said amount, will be accepted as Security Deposit.

The validity of the SD / BG will be from the date of successful commission and acceptance of the Frequency Converter till 60 days after completion of warranty periods and scheduled completion of all obligations under the contract/PO.

In case, SD is not deposited by the supplier in time, the same amount would be adjusted from the initial bills.

In case of breach of Contract OR violation of any terms of the Contract, the SD may be forfeited.

The SD shall not bear any interest. The cost of submission of SD or execution of BG would be borne by the successful tenderer.

Security Deposit will be refunded within 60 days after completion of warranty periods and scheduled completion of all obligations under the contract/PO, subject to, however, deduction of penalties, if any, that may be leviable under the terms of the contract/PO.

14. Evaluation of Bids:

a) Technical-Bids:

The Technical-Bids would be opened first & evaluated for compliance of “Eligibility Criteria” as specified in the Tender. The Technical-Bids shall be evaluated on the basis of details and documents provided by the Bidders or other documents in support of Eligibility Criteria of Technical Bid, Annexure-A.

b) Price-Bids:



"Price Bid" shall comprise the Price Schedule considering all financially relevant details, including Taxes and Duties as per Financial Bid Format.

The Price-Bids of only technically suitable Bidders, who qualify the "Eligibility Criteria" of the Tender, would be opened on a later date.

c) Bid Validity:

1. Price Offered by the Bidder should be valid for **180** days from the date of opening of the Technical Bid for consideration of AIESL.
 2. A bid valid for a shorter period shall be rejected as non-responsive.
- d) If required, before the expiry of the original time limit, the AIESL may request the bidders to extend the validity period for a specified additional period. The request and the bidder's responses shall be made in writing or electronically or as per GeM portal. A bidder may agree to or reject the request. A bidder who has agreed to the AIESL's request for extension of bid validity, in no case shall be permitted to modify his bid.
- e) It will be imperative for each Tenderer to fully acquaint himself with the local conditions and factors, which may have an effect on the execution of the Contract and/or the cost and submit bid accordingly.
- f) During the process of the evaluation of Bids, no queries shall be entertained from the Bidders with regard to the status of the Bids.
- g) Extension of closing date / due date / time of Tender: The date / time for submission of Bids and opening of Technical-Bids, may be extended at any time, at the sole discretion of AIESL.

15. Payment Terms:

On satisfactory acceptance of the item by the user section, a bill (in INR) raised in the name of AIESL is to be sent to the office of DGM, PPMM, AIESL, New Technical Area, Dum Dum, Kolkata – 700 052, India. The bill so raised must be submitted along with certified acceptance report by Competent Authority of AIESL. Our payment terms is 30 days credit. Payment shall be made on submission of undisputed bill after successful commissioning and acceptance by AIESL authority. Non-acceptance of the payment terms shall lead to the disqualification of the bidder.

16. Arbitration Clause: -

Any dispute or differences, whatsoever arising between the parties out of or relating to the construction, interpretation, application, meaning, scope, operation or effect of the Contract / Agreement or validity or the breach thereof, which despite best efforts cannot be amicably settled between the parties, shall be referred to "SCOPE FORUM OF CONCILIATION AND ARBITRATION — GOVT. OF INDIA" and the award made in pursuance, thereof shall be final and binding on the parties to the arbitration. The venue of arbitration shall be Kolkata and the arbitration proceedings shall be carried in English. The cost of the



arbitration shall be borne by the parties as per the award of the sole arbitrator.

17. Jurisdiction: -

Any dispute arising out of this tender whatsoever would be subject to the jurisdiction of Kolkata Courts only.

18. Force Majeure:

Neither Party hereto shall be liable for failure to perform or for delay in performing any of its obligations under the Contract other than those of billing and payment hereunder, if such failure or delay is caused or results from a condition or FORCE MAJEURE. The term FORCE MAJEURE as used in this contract means Act of God, War, Revolt, Riot, Fire Tempest, flood, earthquake, lightning, direct or indirect Consequences of war (declared/undeclared), sabotage, hostilities, National Emergency, Civil Disturbances, Natural calamities, Commotion, Embargo (Blockage) or any law or Promulgation, ordinance or Executive order whether Central or State or Local or Municipal Authorities, Regulation or Breakage/ Leakage, Bursting or Freezing of Pipeline. In the event of a force majeure situation, the affected party shall notify the other party in writing within a reasonable period, detailing the nature and expected duration of the force majeure event. If the force majeure event continues for a prolonged period, both parties shall mutually discuss and determine the next course of action, which may include extension of the contract timeline or termination without liability.



DECLARATION BY THE SELLER

I/We _____ (Name of the Business Entity)
having my/our registered office at _____ (City and State)
hereby declare that we have understood the Terms and Conditions outlined in this document and
that we shall adhere to the same and agree unconditionally to abide by / accept all the terms and
conditions, entire work scope, all specifications and all undertakings included in this Tender
Document. I hereby confirm that I am authorised to Sign the Tender Documents.

Authorised Signatory

Name:

Designation:

Date:

Place:

Signature (with date):

Company Seal:



ANNEXURE – ‘A’

TECHNICAL BID FORMAT

Table A

Sr. No.	Description	Furnish Information Here	Mention the relevant page no. of the submitted document for this information	Remarks
1	Name of the Company			
2	Nature of establishment (proprietary/partnership/company) Please enclose a copy of registration certificate			
3	In case of partnership/company please provide the names of the partners/ directors with full address/ telephone nos.			
4	a) Full address of the Regd. Office b) Telephone No. c) Mobile No. d) Fax No. e) Email Address f) Name of Contact person g) Name of 2 nd Contact person			
		Answer in YES or NO. If answer is No then tender stands rejected	Provide details	Mention the page no. as indicated in the
5.	The bidder must be an OEM or authorized dealer of Static Frequency Converter (SFC) unit brands suitable for A320/B737 family aircrafts.			



	<p>The bidder also may be OEM appointed authorized assembler of SFC units suitable for A320/B737 family aircrafts.</p> <p>In all cases, where the bidder is not the OEM, the bidder must submit the authorized dealership certificates/appointed authorized assembler certificates with validity period from the OEM.</p>			
6.	<p>The bidder (manufacturer or principal of authorized representative) must have regularly for at least the last 10 years, ending 31st March of the previous financial year i.e. year ending 2024-2025, manufactured and supplied SFC unit suitable for A320/B737 family aircrafts, with the same or higher specifications mentioned in the tender (has to establish with evidence the OEM has manufactured and supplied at least one number of the product of same or higher specification in the year 2014-2015 or before for use with A320/B737 family aircrafts).</p>			
7.	<p>The bidder' must have manufactured and supplied at least 1 (one) number of the product suitable for A320/B737 family aircrafts in at least one of the last five years ending on 31st March 2025, and out of which at least 1 (one) number of offered version/ model of the product must be in successful operation for at least 3 years on the date of bid opening. (Documentary evidence such</p>			



	as Purchase Order, Work Order, Completion Certificate, Performance Certificate from buyer etc. must be submitted with the bid)			
8.	Must have Turnover of at least Rs. 13 lakhs (Rupees Thirteen Lakhs) (equivalent amount in other currencies) per annum for last 3 financial years i.e. 2021-2022, 2022-2023 & 2023-2024. (Audited Balance Sheet & Profit & Loss A/c. duly certified by Chartered Accountant or certificate from Chartered Accountant certifying Annual Turnover for last three financial years must be submitted with the bid)			
9.	EMD of Rs.62,000.00 (Rupees Sixty-Two Thousand only).		D/D Number / Wire Transfer Number & Date	
10.	PAN Registration, if applicable, or its equivalent in its country of origin and acceptable to Govt. of India. (Copy of PAN card to be enclosed, wherever applicable)		PAN.....	
11.	Copy of Income Tax Returns for the last three accounting years to be enclosed, if applicable		2021-2022..... 2022-2023..... 2023-2024.....	
12.	Must submit a copy of GST Regn. (if applicable), if applicable		GST Registration No.	
13.	Whether any employee of AIESL or his/her spouse is related to your company in any capacity (if yes give details)			Any wrong declaration if detected later will render the Tender/ Contract



				void
14.	Whether any contract /LOI issued to the Tenderer was terminated / rescinded due non-compliance of Terms & Conditions of the Tender. / non-compliance of the provision of Statutory Labour laws/ Criminal Offences in the past			If Yes, not eligible
15.	Whether Tenderer was blacklisted by any Government agency.			If Yes, not eligible
16.	Any other information which Tenderer may like to furnish (Separate Sheet may be Enclosed if required.			

IMPORTANT: *Self-attested copy of documentary proof as required above must be furnished along with Technical Bid and in case the required information and documents with the technical bid are not furnished, the tender shall be rejected.*



Table B:

THE REQUIRED 01 NO. OF 90KVA AC FREQUENCY CONVERTER SHALL BE OF FOLLOWING SPECIFICATIONS:

Description / Technical Specifications			Acceptance to the Specification as placed in this table and agreed to supply with required Quantity (write YES/ NO only) Bid stands rejected if the answer is NO	Bidder's specifications	Remarks, if any
Sl. No.					
1.	Type of equipment	Trolley mounted Static 90 KVA, 200/115V, 400 Hz, 3 Phase Frequency Converter for A320/B737 family Aircraft Electric Power Supply – Required Quantity – 01 (one) unit			
1.1	Quantity	01 (one) number			
1.2	Make	Mention the name of the manufacturer.....			
1.3	Model	Mention the offered model number.....			
2.	Supply Input Power				
2.1	Input Voltage	415 Volt RMS \pm 10%, 3 Phase, 50 Hz			
2.2	Phase Rotation	Any: Automatic phase lock for ABC or CBA supply rotation			
2.3	Inrush current	Less than 2% of full load current			



Description / Technical Specifications			Acceptance to the Specification as placed in this table and agreed to supply with required Quantity (write YES/ NO only) Bid stands rejected if the answer is NO	Bidder's specifications	Remarks, if any
3.	Output Power				
3.1	Output voltage	AC 200 V Phase to Phase, AC 115V Phase to Neutral ($\pm 1\%$)			
3.2	Output frequency	$400 \pm 0.01\%$			
3.3	Voltage regulation	$\pm 1\%$ Maximum			
3.4	Voltage modulation	$\pm 0.5\%$ Maximum			
3.5	Voltage balance	Within $\pm 1\%$ for Balanced Loads Within $\pm 2\%$ for 25% Unbalanced Loads			
3.6	Phase separation	$120^\circ \pm 1^\circ$ for Balanced Loads $\pm 3^\circ$ for 25%			
3.7	Voltage trim adjustment	$\pm 5\%$ of nominal voltage			
3.8	Crest factor	$1.414V \pm 0.05 V$			
3.9	Overload capacity	110% for 1 hour 125% for 10 minutes 150% for 20 seconds 200% for 10 seconds 300% for 6 seconds			
3.10	Output power rating	90 KVA continuous duty 0.8 power factor lagging			
3.11	Total harmonic	Total 2% maximum Single 1% maximum			



Description / Technical Specifications			Acceptance to the Specification as placed in this table and agreed to supply with required Quantity (write YES/ NO only) Bid stands rejected if the answer is NO	Bidder's specifications	Remarks, if any
	distortion				
4.	Environmental specifications				
4.1	Ambient temperature range	Operating: 0 to 50 ⁰ C Storage: -10 ⁰ C to 70 ⁰ C			
4.2	Humidity	10% to 100% with condensation			
4.3	Audible noise level	Less than 68 dba @ 2 meters			
5.	Metering, Indicators & Controls				
5.1	Parameters to display	LCD/Digital – Output voltage, output ammeter, output frequency, elapsed time			
5.2	Operating controls	Main ON / OFF MCCB; Load ON / OFF Push Button; Test Mode / Aircraft Mode Selector			
5.3	System indicators	a. Mains R, Y, B – LED b. Output U, V, W – LED c. Load - ON LED			
5.4	Protection indicators	a. Output Under / Over voltage b. Output Overload / Short circuit			



Description / Technical Specifications			Acceptance to the Specification as placed in this table and agreed to supply with required Quantity (write YES/ NO only) Bid stands rejected if the answer is NO	Bidder's specifications	Remarks, if any
		c. Input Over / Under Voltage d. Input phase fail / reversal e. Over temperature f. Audible alarm			
5.5	Protections	a. Output Under / Over voltage b. Output Overload / Short circuit c. Input Over / Under Voltage d. Input phase fail / reversal e. Over temperature f. Output phase reversal			
6.	Other Features				
6.1	Interlocking	28 V DC supply to provide interlock signal to output contactor in Test Mode			
6.2	Flasher & Lights	At least one Flasher to indicate unit in operation status and two LED flood lights not less than 40 watts each shall be provided on top of the SFC unit.			
6.3	Environmental protection	Compliant with at least IP55 standards			
7.	Trolley & Accessories	Specifications for the trolley on which the Static 90 KVA Frequency Converter will			



Description / Technical Specifications			Acceptance to the Specification as placed in this table and agreed to supply with required Quantity (write YES/ NO only) Bid stands rejected if the answer is NO	Bidder's specifications	Remarks, if any
		<p>remain mounted -</p> <p>a. Trolley made of MS channel base frame mounted on four solid non-marking wheels of adequate capacity.</p> <p>b. The trolley is to be designed for towing by tractor or platform truck with maximum speed of 20 kmph.</p> <p>c. Canopy on top for all weather condition.</p> <p>d. Separate cable drums for incomer and output cables shall be provided with proper stoppers to avoid movement or rotation of while not in use. Handles shall be provided on the drums for winding the cables.</p> <p>e. Tow hook/handle shall be provided with swivel front wheels for ease of movement and towing.</p> <p>f. Brakes: Trolley to be provided with a tow handle lowering of which should engage the brakes for the trolley at the front wheels.</p> <p>g. Metal chokes shall be provided for each wheel as stopper to avoid unnecessary movement of trolley when parked.</p>			



Description / Technical Specifications			Acceptance to the Specification as placed in this table and agreed to supply with required Quantity (write YES/ NO only) Bid stands rejected if the answer is NO	Bidder's specifications	Remarks, if any
		<ul style="list-style-type: none"> h. Trolley to have adequate suspension system to take the load of the SFC. i. All items including the SFC, trolley etc. to have proper painting. j. The trolley and/or the SFC unit to have lifting provision. 			
8.	Cables				
8.1	Input cable (main supply panel to unit)	Cable Length – 50 meter, 4 x 1 core, 50 sq. mm rubberized copper cable for main power & 50 meter, single core, multistrand & 10 sq. mm rubberized copper cable for earthing. The cables are to be bound together in cloth/ woven/ PVC cover with one end fitted with a Mains Plug (Male) connector for connection to Mains Distribution Panel Socket (Female). The second end is to have copper lug for termination at the SFC unit. Both the plug and socket are to be supplied by the successful vendor.			
8.2	Output cable (unit to aircraft)	Cable Length – 50-meter, 4 x 1 core, 70 sq. mm rubberized copper cable for main power			



Description / Technical Specifications			Acceptance to the Specification as placed in this table and agreed to supply with required Quantity (write YES/ NO only) Bid stands rejected if the answer is NO	Bidder's specifications	Remarks, if any
		and 2 core 2.5 mm sq. rubberized copper cable for E & F signal. The cables are to be bound together in cloth/ woven/ PVC cover. One end is to be fitted with 6 PIN NATO connector (Female) (Anderson Airmotive make only) for connection to Aircraft. The second end will have copper lugs for SFC termination.			
9.	Standards	DFS400 - Specification for 400 Hz aircraft power ISO 6858 - Aircraft ground support electric supplies IEC 60529 - Degrees of protection provided by enclosures (IP Code)			
10.	Parts List, Instruction Manual & Drawings:	Must supply along with the product, the elaborate electrical/mechanical schematic drawings, clearly marking the starting system, the protection system, and the indications / safety devices employed etc. Supplier shall provide, along with the product, spare parts list with part nos. and quantity,			



Description / Technical Specifications			Acceptance to the Specification as placed in this table and agreed to supply with required Quantity (write YES/ NO only) Bid stands rejected if the answer is NO	Bidder's specifications	Remarks, if any
		operating instruction manual, maintenance manual, electrical wiring/circuit manual and service manual covering all the components.			
11.	Spares & Service Support	OEM must provide written assurance for spare parts availability for at least 10 years post-supply. If bidders are not OEM, then they must submit OEM's assurance certificate confirming spare parts availability for at least 10 years post-supply			

- The bidder must be an authorised dealer/distributor/manufacture of the specified Frequency Converter as on date and mention the same.
- The bidder must have a valid GeM registration and be compliant with all statutory requirements.
- The bidders other than OEM, must submit valid OEM's authorisation certificate.
- Bidders shall have the experience and proven track record of supply, installation and commissioning of at least 01 (one) no. of 115V, 400 Hz Static Frequency Converter for A320/B737 family aircrafts in any Central Govt./PSU/State Govt./MNCs/Corporate Companies during last 3 (Three) years from bid due date. Documentary evidence in this regard must be submitted along with the bid such as copy of Purchase Order detailing scope of supply and delivery document such as satisfactory performance certificate / work done satisfactory/work completion certificate etc. of above failing which offer will be rejected.
- Documents Required from the Bidders/Sellers: -
 - Company/Proprietor PAN Card.** [To be Uploaded Under "Experience Criteria/Certificate



Requested in ATC”]

2. **Company/Proprietor GST registration certificate.** [To be Uploaded Under “Experience Criteria/Certificate Requested in ATC”]
3. **OEM’s Authorisation Certificate:** Must be uploaded OEM’s authorized distributor Certificate.
4. **MSE/Udyam Certificate** (if applicable) for the particular trade / item for which the Tender is relevant.
5. **Compliance to Specifications and Supporting Documents** [All supporting documents like Catalogues, ISO Certificate, Pollution Certificate (if applicable), and other important documents to be uploaded under “Compliance of specifications and supporting document”].
6. **Certificate of Warranty (Yes/No)** of at least 1 year from the Date of Commissioning and acceptance by AIESL authority.
7. **Specification booklet or brochure** of quoted make/model of Industrial Mobile Fan must be uploaded along with technical bid.
8. The brand offered must have at least one **OEM-authorized service centre located in Kolkata**, with trained technicians and spare parts inventory. Address and contact details must be submitted with the bid.
9. OEM must provide written assurance for **spare parts availability for at least 10 years** post-supply. If bidders are not OEM, then they must submit OEM’s assurance certificate confirming spare parts availability for at least 10 years post-supply.

Authorized Signatory:

Name:

Date:

Company Seal

Note: Compliance sheet must be submitted duly filled signed and stamped by the bidders



ANNEXURE – ‘B’

PRICE BID

Sr. No.	Description	Quantity	Rate (Rs.)	Amount (Rs.) (Rate X Quantity)
1.	Supply of Trolley mounted Static 90 KVA, 200/115V, 400 Hz, 3 Phase Frequency Converter for Airbus 320/Boeing 737 family Aircraft Electric Power Supply as per technical specifications given in this tender document.	Mention Make & Model No. here Make..... Model.....	01 (One)	
2.	Rebate offered (If any)			
3.	Total Basic (Rs.) (1-2)			
4.	Taxes			
5.	DDP and unloading at location indicated by AIESL, NSCBI Airport, Dum Dum, Kolkata-700052	Lump sum		
6.	Any other charges, if any			
7.	NET DELIVERED PRICE [Rs.] [A] (3+4+5+6)			
8.	Erection & Commissioning Charges including charges for imparting training to AIESL staff as per job details mentioned in the tender document.			
9.	Taxes, if any			
10.	Total [B] (8+9)			
Grand Total [A+B]				
In Words – (Rupees.				

Notes:

1) LQ1 will be decided as per quoted rates under Grand Total.

2) Conditional offers, if any, are liable to be rejected at the sole discretion of “AI Engineering Services Limited”.

3) Rate Negotiation:

It is not the general practice of “AIESL” to carry out Post Tender Negotiations. Therefore, Tenderers are advised in their interest to submit their best quotes in response to this Tender.



“AIESL”, however, reserves the right to carry out negotiations after evaluation of Price bids in exceptional cases with the L-1 bidder.

- 4) That the above rates quotes had been filled after considering all the factors and all the costs and consequences related to the work scope, terms, and conditions of the Tender.
- 5) Royalty (presently 13% on the contract value), if applicable, will have to be paid by the successful vendor to the Airports Authority of India and the same will be reimbursed by AIESL on production of proper documents.
- 6) Successful vendor has to get Aerodrome/Airport Entry Permit (AEP) done for their employees at their own cost and initiative.
- 7) LQ-1 for any selected option will be decided on the basis of Total value as reflected against Grand Total (A+B) of the aforementioned table after loading, if applicable, as per mentioned herein.
- 8) Discounts & offers:
 - a) Unconditional discounts, if any, should be clearly indicated. Same would be applied to the quoted price during evaluation.
 - b) Conditional discounts, if offered, will not be considered for evaluation.
 - c) Conditional offers, if any, are liable to be rejected at the sole discretion of AI Engineering Services Limited.

IMPORTANT NOTE:

IF A BIDDER QUOTES NIL CHARGES / CONSIDERATION OVER AND ABOVE THE KNOWN MINIMUM CHARGES THAT ARE PAYABLE / APPLICABLE AS PER GOVERNMENT OR REGULATORY BODY, ETC. IN THE ABOVE FINANCIAL BID THEN THE BID WILL BE TREATED AS UNRESPONSIVE AND WILL NOT BE CONSIDERED.

Undertaking: I have carefully gone through and have understood and hereby agree to all the General Terms & Conditions, Work scope & specifications governing the tender and agree unconditionally to abide by / accept all the terms and conditions, entire work scope, all specifications and all undertakings included in this Tender Document. I hereby confirm that I am authorised to Sign the tender Documents.

Company Seal:

Signature:

Name:

Designation:

Company:

Date: