STANDARD BIDDING DOCUMENT (SBD)



GOVERNMENT OF SINDH

SHAHEED MOHTARMA BENAZIR BHUTTO INSTITUTE OF TRAUMA (SMBBIT), KARACHI

"PROCUREMENT OF GENERAL ITEMS MACHINERY PARTS & PLANT & MACHINERY"

TENDER REFERENCE # Ref # PROC/SMBBIT/(OTHERS-02)/2023-24

NOTE:

- **1. TENDER FEE: RS. 10,000/-(NON-REFUNDABLE)** IN SHAPE OF PAY ORDER IN FAVOR OF SHAHEED MOHTARMA BENAZIR BHUTTO INSTITUTE OF TRAUMA, KARACHI.
- 2. NO TENDER WILL BE ACCEPTED AFTER CLOSING OF THE TENDER BOX, WHAT SO EVER REASON MAY BE.
- **3.** ALL THE PARTICIPANTS MUST SIGN EACH & EVERY PAGE OF BID DOCUMENTS, ELSE OFFER WILL BE REJECTED.

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BIDDING DATA SHEET

Procuring Agency	SMBB Institute of Trauma, Karachi
Address	Chand Bibi Road, Karachi
Bid Validity	90 Days, As per SPPRA Rule 2010 (amended till date)
Amount of Bid Security	5% of Total Bid Quoted Price
Last date of Selling of Bid	As per mentioned in NIT
Date of Submission of Bid	As per mentioned in NIT
Place of Submission	13 th Floor, Planning and Procurement Department, SMBB Institute of Trauma, Karachi
Performance Security	5% of the Contract Value
Language of Bid	English
Currency of Bid	PKR
Bidding Procedure	Single Stage One Envelope Procedure 46(1)
Advance Payment	No Advance Payment will be allowed
Period of Completion	Financial Year 2023-24
Liquidity Damages	 @0.03 percent of the Contract Price for each day of delay until actual delivery or performance, up to a maximum deduction of 10% of the Contract Price. Once the maximum is reached, the purchaser may consider termination of the contract.
Inspection Authority	Inspection Committee of SMBB Institute of Trauma.
Place of Delivery	Store Department of SMBB Institute of Trauma, Karachi, and satellite trauma centers in different locations of Sindh Province.

INSTRUCTIONS TO BIDDERS

- Shaheed Mohtarma Benazir Bhutto Institute of Trauma (SMBBIT) invites sealed bids on Single Stage One Envelope Procedure 46(1) as per Sindh Public Procurement Rules 2010, (Amended till date) from Manufacturers / Importers / Sole Agents / Authorized Distributors for "PROCUREMENT OF GENERAL ITEMS MACHINERY PARTS & PLANT & MACHINERY" Tender Ref. #: PROC/SMBBIT/(OTHERS-01)/2023-24.
- 2. The tender shall be submitted with all documents in sealed envelope. The envelope must contain tender inquiry Number on the top, the name of the Bidder should be affixed on the face of the envelope. Envelope should be sealed and addressed to Planning & Procurement Department Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi and inserted in Tender box by hand or mail on the scheduled date and time, else tender will not be entertained and would be returned unopened to the bidders.
- 3. Bidders are required to check that Tender Documents issued to them are complete in all respects as per table of content.
- 4. Bidders should examine carefully the table of content. They should visit and inspect the site at their own expense, responsibility and obtain all necessary information prior to submitting the tender. Any detail/specification missing in the document should be obtained from **Planning & Procurement Department**, SMBBIT Karachi before bidding. Once the tender is submitted, it will be assumed that no further clarification was required.
- 5. Tender Fee in shape of pay order in favor of **Shaheed Mohtarma Benazir Bhutto Institute of Trauma** (**SMBBIT**) must be attached; else the offer will be rejected.
- 6. Bidder will attach **BID SECURITY** (as per amount mentioned under Bidding Data) in shape of pay order issued from any scheduled Bank of Pakistan in favor of **Shaheed Mohtarma Benazir Bhutto Institute of Trauma (SMBBIT), Karachi submit with bid**.
- 7. The original bid shall be typed or written in indelible ink by the bidder or person duly authorized. The person or persons signing the bid shall initial all pages of the bid. The name and designation of each person signing must be mentioned below the signature.
- 8. The Bidder shall indicate on the appropriate Price Schedule (in PKR) the units (where applicable) and total bid price of the goods/services it proposes to supply/execute under the contract.
- 9. No bidder shall be allowed to alter or modify his bid after the bids have been opened. However, the Procuring Agency may seek and accept clarification to the bids that do not change substances of the bids.
- 10. The Procuring Agency may reject all or any bid or proposal at any time prior to the acceptance of a bid or proposal. Subject to relevant provision of SPPRA Rules, 2010 (Amended till Date). The Procuring Agency upon request communicate to bidder who submitted a bid or proposal, the grounds for its rejection of all bids or proposal, but is not required to justify those grounds.

- The quoted rates should include all costs of whatsoever description and expenses necessary for the whole work together with all risks, taxes, liabilities and obligations, specific or implied, in the Tender Documents. Arithmetical errors, if any shall be corrected and Tender price amended accordingly.
- 12. No unauthorized alteration may be made in the Tender documents. If any such alteration is made, tender may be liable for rejection.
- 13. Clarification, revision, addition or deletion, in the tender documents may be made by the authority before the submission and opening of Tender in the form of Addendum/Corrigendum. This will be made only by formal Addendum/ Corrigendum issued by the concerned authority and will become part of the contract documents. Each Addendum shall be signed by the Vendor and returned with other Tender documents.
- 14. The vendor has to quote only one rate for each work as per tender specifications. Hand written tenders or any over writing, cutting, should be signed.
- 15. The entire Tender Documents, listed duly priced, signed & stamped on each page and completed must reach at designated place in due time and dates as defined in the Bidding Data of the Tender.
- 16. Contractors who win the tender will be required to enter into a Contract Agreement as defined in the Form of Agreement.
- 17. No bidder shall contact the Procuring agency on any matter relating to its bid, from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Procuring agency, it should do so in writing.
- 18. The bid security will be forfeited to the Government, if the bidder withdraws his bid after opening and before the expiry of the bid validity period or fails to sign the contract in stipulated time if the bid is accepted.
- 19. Conditional tender and tender without bid security shall not be considered.
- 20. Bids shall remain valid for a period of 90 days after the date of bid opening and same may be extended in terms of Rule 38 (2) (3) (4) of SPPRA Rules.
- 21. Bids submitted late due to any reason whatsoever, shall not be considered and returned unopened to the bidder or his authorized representative.
- 22. Bid / offer will be evaluated as per criteria for evaluation of bid's terms & conditions.
- 23. The quoted rates once offered by the firms will not be changed during the contract period.
- 24. The quoted rates should be in Pak. Rupees and must be valid till contract period that is 1 year starting from signing of contract agreement; Orders will be placed as per requirement after receiving demand from the concern department of Shaheed Mohtarma Benazir Bhutto Institute of Trauma.
- 25. All Bidders should provide **<u>SAMPLES FREE OF COST</u>** of the each quoted products.

- 26. All bidder(s) must submit samples (in commercial pack) of all quoted items as per specification mentioned in the technical bid; each sample pack should be marked with Section & Item # (as mentioned in bill of quantities and price schedule). List of sample along with item brochures / leaflet duly acknowledged should also be submitted in the office of Planning & Procurement Dept. 13th floor SMBB Institute of Trauma at least 2 days before the submission of the tender. Non submission of the samples will lead to rejection of item(s).
- 27. The tendered rate should be inclusive of all applicable taxes to Federal & Provincial Govt. or local bodies and will be deducted from the bill of the contractors / suppliers.
- 28. All the (applicable) Government taxes (Income Tax, General Sales Tax / Sindh Sales Tax, 0.35% Stamp Duty of the value of the contract amount will be affixed on the bills or on the contract agreement of the full contract value by the Contractors / Suppliers.
- 29. All documents should be submitted duly paginated / flagged and the detailed of the documents should also be mentioned in front of the Index, else Procurement Committee reserves the right to accept or reject bid.
- 30. The bidders shall quote their firm and final price both in figure and in words on free delivery basis to Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi.
- 31. Distributor once nominated by the manufacturer / importer will be for the whole contract period and manufacturer / importer cannot change its distributor during the contract period in any case.
- 32. No manufacturer / importer shall authorize their distributor / agent / any firm or person to quote the same item, which the manufacturer is quoting itself in any tender. Failing those offers of both the manufacturer as well as other bidder shall be ignored.

TERMS & CONDITIONS OF TENDER

- Shaheed Mohtarma Benazir Bhutto Institute of Trauma (SMBBIT) invites sealed bids on Single Stage One Envelope Procedure 46(1) as per Sindh Public Procurement Rules 2010, (Amended till date) from Manufacturers / Importers / Sole Agents / Authorized Distributors for "PROCUREMENT OF GENERAL ITEMS MACHINERY PARTS & PLANT & MACHINERY" Tender Ref. #: PROC/SMBBIT/(OTHERS-02)/2023-24.
- 2. PERFORMANCE SECURITY: The successful bidders will have to deposit the requisite Performance Security Bond in the shape of a Pay Order / Demand Draft or Bank Guarantee (as per amount mentioned under Bidding Data) in favor of Shaheed Mohtarma Benazir Bhutto Institute of Trauma (SMBBIT). The same will be released after successful completion of supply & contract period. Moreover, security deposit shall be forfeited by the Procuring Agency if contractor fails to comply with terms and condition of the contract at any stage during contract period.
- **3.** Bid should be inclusive of all Government taxes (if applicable) and the same will be paid by the Contractor except withholding tax.
- 4. The firm will be responsible for supply of "PROCUREMENT OF GENERAL ITEMS MACHINERY PARTS & PLANT & MACHINERY" Tender Ref. #: PROC/SMBBIT/(OTHERS-02)/2023-24 at consignee address. (Shaheed Mohtarma Benazir Bhutto Institute of Trauma SMBBIT Karachi). If it fails, the Security Deposit will be forfeited.
- 5. Procurement Committee shall disqualify a contractor, whether pre-qualified or not, if it finds at any time, that the information submitted by bidder concerning his qualification and professional, technical, financial, legal, or managerial competence as contractor was false and materially inaccurate or incomplete at any stage.
- 6. The Procuring agency reserves the right at the time of contract award to increases / decrease & delete, the items / quantities of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.
- 7. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If the bidder does not accept the correction of the errors, its bid will be rejected, and its bid security may be forfeited.

- 8. 20% of the due General Sales Tax / Sindh Sales Tax (if applicable) will be deducted from the bill of the Contractors / Suppliers while remaining 80% will be deposited by the Contractors / Suppliers themselves.
- **9.** No tender will be entertained without Bid Security which will be forfeited to Government Treasury, in case of non-submission of Performance security within seven (7) days of receipt of letter of Acceptance.
- **10.** Quantities of tender items are on estimated basis and could vary according to the amount sanctioned, released and as per discretion of Procurement Committee.
- **11.** All manufactured and other items should be used in accordance with the instructions, specifications in the Tender Document and also in accordance with generally accepted norms of good workmanship.
- **12.** The Bidder shall sign and stamp the Integrity Pact provided at Bid in the Bidding Document for all Provincial Government procurement contracts. Failure to sign such Integrity Pact shall make the bidder non-responsive.
- **13.** If the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Procuring agency shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in Bidding Data of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in Bidding Data. Once the maximum is reached, the Procuring agency may consider termination of the Contract.
- **14.** Supplies are required as early as possible. The bidder may, however, give their short guaranteed delivery period by which the supply will be completed positively.
- **15.** The Technical evaluation carried out by the Committee Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi will be final, which will be assessed on experience basis of the relevant specialty.
- **16. PURCHASER'S RIGHT TO VARY QUANTITIES** The Shaheed Mohtarma Benazir Bhutto Institute of Trauma Authority reserves right to increase / decrease or delete the quantities., at the time of award of contract and also reserves the right to enhance the quantity of goods / services originally specified in the schedule of requirement without any change in unit price or other terms and conditions of goods at any time during defined period.
- **17. PURCHASER'S RIGHT TO ACCEPT ANY BID AND REJECT ANY OR ALL BIDS:** The SMBBIT Authority reserves the right to purchase full or part of the store or ignore / scrap / cancel the tender as per relevant rules of SPPRA-2010 (Amended till date).
- **18. REDRESSAL:** Redressal of Grievances & settlement of dispute will be as per SPPRA Rule-2010 (Amended till to date).
- **19. BID EVALUATION (T.E.R):** Bid evaluation will be considered on following grounds for approval of company as mentioned in **Annexure # A**.

20. If a bidder elects to submit alternative bid without enclosing a separate tender purchased slip/pay order and Bid security of requisite amount in shape of pay order, bid form and valid Manufacturer Authorization, all such alternative bids will be rejected as non-responsive.

I / We agree to above mentioned terr	ms & conditions:	
Name of Contractor	Signature	
CNIC NO.		(Copy must be attached).
Full Address		
Rubber Stamp		

CRITERIA FOR EVALUATION OF BID

(Bidders are required to submit following documents in mentioned sequence)

S. #	List of Documents	Yes	No
1.	 Compliance of Terms & Conditions / Instructions mentioned in the SBD. 1. Attached authorized person CNIC copy. 2. Signed & stamped each and every page of Terms & Condition & all 		
	bidding documents. (If compliance of above points not found offer will be rejected).		
2.	Relevant Experience with documentary proof (at least Last Three Years) Attach Supply / Purchase Order / Award of Contract (Public / Private Sector / Semi - Government Organizations) Provincial / Federal / Local must be attached.		
3.	Registration with Income Tax – NTN (Attach Valid Certificate)		
4.	Copy of Financial year Paid Income tax and return (Recent Last Three Years)		
5.	Copy of Professional Tax (Attach Recent Valid Certificate Copy)		
6.	 a) General Sales Tax (Mandatory) b) Sindh Sales Tax (If applicable) / Sindh Board of Revenue (Registration is not required for procurement of Goods) 		
7.	Financial year Paid Income tax and return 2022-23 / 2023-24 regarding financial soundness of the firm to do business up till PKR 100 million or more .		
8.	Submission of undertaking on legal valid and attested stamp paper that the firm is not blacklisted and litigated by any institute of Federal, Provincial Government or any Department / Agency / Organization / Autonomous body or Private Sector Organization anywhere in Pakistan. (Undertaking should be as per given sample as per attached Table of Content Point # 11). (ANNEXURE-D)		
9.	Submission of Undertaking on legal valid and attested stamp paper that supply of required items within stipulated time. (ANNEXURE-E)		
10.	Bidder already providing services at SMBBIT should obtain & attach a satisfactory performance certificate from competent authority of SMBB Institute of Trauma (for the financial year in which the bidder last provided its services).		
11.	Pay order / Bank Draft of Bid security should be attached along with bidding document.		
12.	Authorization / Distributors Agency Agreement with Manufacturer.(Where Applicable)		
13.	Bid Letter Form on bidder's letter head as per sample of this bidding documents duly sign and stamp. (ANNEXURE-C)		
14.	Soft Copy (USB) containing all documents and form (In Excel/DOC format and searchable)		

NOTE:

1. The offer will not be entertained if the above mentioned documents are not found attached.

2. Bidder should take their unapproved samples within 30 days after the BER announcement, Institute will not be responsible for any claim made after 30 days.

- 3. The technical evaluation carried out by the Procurement Committee, SMBBIT, Karachi will be final, which will be assessed on technical aspect and clinical experience basis of the Consultant(s) in the relevant specialty.
- 4. All bidder(s) must submit samples (in commercial pack) of all quoted items as per specification mentioned in the technical bid; each sample pack should be marked with Section & Item # (as mentioned in bill of quantities and price schedule). List of sample along with item brochures / leaflet duly acknowledged should also be submitted in the office of Planning & Procurement Dept. 13th floor SMBB Institute of Trauma at least 2 days before the submission of the tender. Non submission of the samples will lead to rejection of item(s).
- 5. Specifications approved by the Consultant(s) in the relevant specialty will be considered by the Procurement Committee.

I / We agree to above mentioned.		
Name of Contractor	Signature	
CNIC NO.		(Copy must be attached).
Full Address		
Rubber Stamp		

SCHEDULE OF REQUIREMENT

FOR SHAHEED MOHTARMA BENAZIR BHUTTO INSTITUTE OF TRAUMA KARACHI (SMBBIT)

The Shaheed Mohtarma Benazir Bhutto Institute of Trauma Authority reserves right to increase / decrease or delete the quantities., at the time of award of contract and also reserves the right to enhance the quantity of goods / services originally specified in the schedule of requirement without any change in unit price or other terms and conditions of goods at any time during contract period **i.e. 1 year** from the signing of Contract Agreement.

Item(s) mentioned in Bill of quantities & Price schedule are on estimate basis procurement committee and end user purchase item(s) as and where required basis, after the acceptance of the tender by the bidder(s) / Firm(s), signing of the contract, purchase order will be issued during the Contract period and if purchase order is not executed by the bidder(s) / Firm(s), the performance security shall be forfeited to the Government Accounts without any notice.

1. **DELIVERY:** 100% quantity shall be supplied **within Three months** from the date of Supply order / Award of tender. The Liquidated / damages in the event of completion beyond the given schedule shall be (mentioned in bidding data sheet). In case of failure hospital reserve the right to take any action according to SPPRA Rules 2010 (Amended till date).

(If bidder gives supply time more than one month that bid will not be considered / acceptable).

2. NAME AND ADDRESS OF THE CONSIGNEE: Store Department of SMBB Institute of Trauma, Karachi, and satellite trauma centers in different locations of Sindh Province.

3. DISPATCH INSTRUCTION: Free Delivery to the Consignee. i.e. Store Dept. SMBB Institute of Trauma, Karachi and satellite trauma centers in different locations of Sindh Province, Between 09:00 am to 03:00 pm.

4. **PART SUPPLY / PART PAYMENT:** Allowed

(Note: It should be mentioned on the Delivery Note 1st Supply, 2nd Supply and Final Supply & on Invoice / Bill that this is 1st Bill, 2nd Bill and in the last supply Final Bill) else in delay of payment the firm will be held responsible).

I / We agree to above mentioned.

Name of Contractor	Signature	
CNIC NO		(Copy must be attached).
Full Address		
Rubber Stamp		

<u>SCHEDULE OF REQUIREMENT/ BILL OF QUANTITIES (BOQ) OF</u> <u>PROCUREMENT OF GENERAL ITEMS MACHINERY PARTS &</u> <u>PLANT & MACHINERY</u> <u>Tender Ref. # PROC/SMBBIT/(OTHERS-02)/2023-24</u>

SECTION A: GENERAL ITEMS

S. NO.	Scope of Work	Qty	UOM	Unit Price	Total Price
1	Stainless Steel Racks Required for Operation Theater and CSSD SS rack size 48"x18"x72" with 8 stages distance between each partition 8" maximum load capacity 1500kg (same as existing or better)	30	Racks		
2	Stainless Steel Racks Required for Operation Theater and CSSD SS rack size 36"x18"x72" with 8 stages distance between each partition 8" maximum load capacity 1,000kg (same as existing or better)	20	Racks		
3	MS Storage Racks required for Stores MS racks size 48" x 18" x 72" with 4 adjustable stages maximum load capacity 500kg (same as existing or better)	50	Racks		
4	MS Heavy Duty Storage Racks required for Warehouse MS racks size 108" x 24" x 84" with 3 adjustable pallets maximum load capacity 1000kg (same as existing as warehouse racks or better)	80	Racks		
5	Vacuum Regulator with jar with lid having capacity of 1 liter auto-cleavable – Re-useable Warranty should be 1 year during maintenance period	150	Pcs.		
6	Oxygen Flow meter wall type Warranty should be 1 year during maintenance period	300	Pcs.		
7	Oxygen Flow meter for cylinders	100	Pcs.		
8	Lead Apron with Thyroid shield (Best Quality)	20	Sets		

9	 Instrument Trolleys Frame constructed of 2¹/₂cm stainless steel pipe Trolley fitted with stainless steel sheet shelves Shelves are 2cm recessed trays for safety of instruments Mobile on 75mm dia. Wheels Size: 43 x 73 x 82(H) cm ISO9001 & CE certified fabrication (Same as existing at SMBBIT) 	20	Nos.	
10	Linen trolley with cover (Same as existing at SMBBIT or better)	30	Nos.	
11	Hampers trolley for soiled linen with cover (Same as existing at SMBBIT or better)	20	Nos.	
12	Oxygen cell for Hamilton C2	40	Pcs.	
13	Oxygen cell for Medec Saturn Evo. & Celius lite	13	Pcs.	
14	SpO2 probe adult for Infinium, OMNI 3	70	Pcs.	
15	Reusable 5 channel leads ECG for Infinium, OMNI 3	40	Pcs.	
16	SpO2 probe paeds for Infinium, OMNI 3	20	Pcs.	
17	Reusable NIBP cuff (paeds) single way tube without bladder for Infinium, OMNI 3	20	Pcs.	
18	Reusable NIBP cuff (XL) single way without bladder for Infinium, OMNI 3	20	Pcs.	
19	SpO2 probe paeds for Nihon kohden Monitor	20	Pcs.	
20	Nozzle connector b/w Hose pipe and cuff for Infinium, OMNI 3, Nihon kohden & Medec.	200	Pcs.	
21	Reusable NIBP cuff (Adult) single way tube without bladder for Infinium, OMNI 3	80	Pcs.	
22	Hamilton C2 expiratory cover & Membrane	40	Pcs.	
23	SpO2 probe adult for BLT, V6	30	Pcs.	

24	SpO2 probe paeds for BLT, V6	10	Pcs.	
25	Reusable Cuff for Tourniquet (Ulrich Elsa) Size 24x4	6	Pcs.	
26	Reusable Cuff for Tourniquet (Ulrich Elsa) Size 28x5	6	Pcs.	
27	Reusable Cuff for Tourniquet (Ulrich Elsa) Size 11x3	6	Pcs.	
28	Reusable Cuff for Tourniquet (Ulrich Elsa) Size 18x3	6	Pcs.	
29	Hamilton C2 Loudspeaker	10	Pcs.	
30	Hamilton C2 P&T Knob	25	Pcs.	
31	Laryngoscope Bulb	50	Pcs.	
32	Fiber Optic Laryngoscope Bulb	50	Pcs.	
33	Hamilton Ventilator Air and O2 Probe	40	Pcs.	

 ${\rm I}\,/\,{\rm We}$ agree to above mentioned.

Name of Contractor	Signature	
CNIC NO		_ (Copy must be attached).
Full Address		
Rubber Stamp		

SECTION B: FIRE & SAFETY RENOVATION WORK

Description	Unit	Tentative Qty.	Rate	Amount
Supply, Installation & Testing Commissioning DXC4, Four Loop, Networkable Analog Addressable Fire Alarm Control Panel with Batteries as per existing panel	Nos	2		
Supply, Installation & Testing Commissioning DXC RS232 Kit for Panel to Software RMU Connectivity with Interface RS232 / 485 to IP 10/100Mhz	Nos	3		
Supply, Installation & Testing Commissiong of Graphics Software Analogic Panel with Liscense complete with Core i7 PC, 8Gb Ram, 1TB HDD Hard drive, HDMI Port, Licensed windows 10 OS & Associated Accessories for Existing System already Installed at site	Set	1		
Supply & Installation of Optical Smoke Detector (Make & Model as per existing at Site)	Nos	310		
Supply & Installation of Manual Call Point (Make & Model as per existing at Site)	Nos	30		
Supply & Installation of Sounder (Make & Model as per existing at Site)	Nos	30		
Supply of FP 200 PH 30 Fire Resistant (Make & Model as per existing at Site)	Coil	1		
 Note: All above items are supply, installation, testing & commissioning basis complete job with 2 years warranty all standard certification required for Fire & Safety protocols. Software upgradation included in warranty maintenance period. Brand should be quoted must be international recognition. Bidder should have backup support engineers on 24/7 on call and office of said bidder will mandatory to have workshop and trained engineers. Bidder should visit and inspect the site at their own expense, responsibility and obtain all necessary information prior to submitting the tender. Any detail/specification missing in the document should be obtained from Planning & Progurament Department SMPRIT - Karachi before bidding. Once the 				
	Supply, Installation & Testing Commissioning DXC4, Four Loop, Networkable Analog Addressable Fire Alarm Control Panel with Batteries as per existing panel Supply, Installation & Testing Commissioning DXC RS232 Kit for Panel to Software RMU Connectivity with Interface RS232 / 485 to IP 10/100Mhz Supply, Installation & Testing Commissiong of Graphics Software Analogic Panel with Liscense complete with Core i7 PC, 8Gb Ram, 1TB HDD Hard drive, HDMI Port, Licensed windows 10 OS & Associated Accessories for Existing System already Installed at site Supply & Installation of Optical Smoke Detector (Make & Model as per existing at Site) Supply & Installation of Manual Call Point (Make & Model as per existing at Site) Supply of FP 200 PH 30 Fire Resistant (Make & Model as per existing at Site) All above items are supply, installation, testing & warranty all standard certification required for Fir Software upgradation included in warranty maint Brand should be quoted must be international rec Bidder should have backup support engineers on mandatory to have workshop and trained enginee Bidder should visit and inspect the site at their ov information prior to submitting the tender. Any d	Supply, Installation & Testing Commissioning DXC4, Four Loop, Networkable Analog Addressable Fire Alarm Control Panel with Batteries as per existing panelNosSupply, Installation & Testing Commissioning DXC RS232 Kit for Panel to Software RMU Connectivity with Interface RS232 / 485 to IP 10/100MhzNosSupply, Installation & Testing Commissiong of Graphics Software Analogic Panel with Liscense complete with Core i7 PC, 8Gb Ram, 1TB HDD Hard drive, HDMI Port, Licensed windows 10 OS & Associated Accessories for Existing System already Installed at siteSetSupply & Installation of Optical Smoke Detector (Make & Model as per existing at Site)NosSupply & Installation of Sounder (Make & Model as per existing at Site)NosSupply of FP 200 PH 30 Fire Resistant (Make & Model as per existing at Site)NosAll above items are supply, installation, testing & commiss warranty all standard certification required for Fire & Safet Software upgradation included in warranty maintenance per Brand should be quoted must be international recognition. Bidder should have backup support engineers on 24/7 on ca mandatory to have workshop and trained engineers. Bidder should visit and inspect the site at their own expense information prior to submitting the tender. Any detail/speci	DescriptionUnitQty.Supply, Installation & Testing Commissioning DXC4, Four Loop, Networkable Analog Addressable Fire Alarm Control Panel with Batteries as per existing panelNos2Supply, Installation & Testing Commissioning DXC RS232 Kit for Panel to Software RMU Connectivity with Interface RS232 / 485 to IP 10/100MhzNos3Supply, Installation & Testing Commission of Graphics Software Analogic Panel with Liscense complete with Core i7 PC, 8Gb Ram, 1TB HDD Hard drive, HDMI Port, Licensed windows 10 OS & Associated Accessories for Existing System already Installed at siteSet1Supply & Installation of Optical Smoke Detector (Make & Model as per existing at Site)Nos30Supply & Installation of Manual Call Point (Make & Model as per existing at Site)Nos30Supply of FP 200 PH 30 Fire Resistant (Make & Model as per existing at Site)Coil1All above items are supply, installation, testing & commissioning basis cor warranty all standard certification required for Fire & Safety protocols. Software upgradation included in warranty maintenance period. Brand should be quoted must be international recognition. Bidder should have backup support engineers on 24/7 on call and office of mandatory to have workshop and trained engineers. Bidder should visit and inspect the site at their own expense, responsibility information prior to submitting the tender. Any detail/specification missing	DescriptionUnitQty.RateSupply, Installation & Testing Commissioning DXC4, Four Loop, Networkable Analog Addressable Fire Alarm Control Panel with Batteries as per existing panelNos2Supply, Installation & Testing Commissioning

I / We agree to above mentioned.

Name of Contractor	Signature	
CNIC NO		(Copy must be attached).
Full Address		
Rubber Stamp		

SECTION C: PLANT & MACHINERY:

S. NO.	Scope of Work				UOM	Unit Price	Total Price
	A Supply, erection, connecting, testing and commissioning of 1400 KVA Standby, 1250 KVA Prime Power, 400/230 V, 50 Hz 3 Phase, 1500 RPM, 0.8 PF 4-Wire, neutral grounded Diesel Generator Set			Qty 2	Nos.		
	making necessary arrangement with the existing distribution system complete with M.S Base Frame, dat service fuel oil external storage tank of 2500 liter capacity, starting DC Batteries with heavy duty suitable battery charger, exhaust silencer, water cooled radiator, brushless alternator engine control panel, anti-vibration mounting, acoustic enclosure, complete as specification. Country of Origin: USA, Western Europe Chinese make not acceptable.				L/S		
		Renovation of Powerhouse Renovation of Powerhouse with all a Complete soundproofing of Powerho complete paint job		1	L/S		
		Shifting of Materials/Equipment Transportation & shifting of existing Genset & other materials to the other location within the city		1	L/S		
	Tec	chnical Specification					
		Engine		1			
	1	Perkin / Caterpillar / Cummins					
		UK,USA / European origin					
	2	Alternator Stamford, Leroy-somer UK, USA, European based or equivalent from the same origin	Stamford (CGT) / Equivalent (European) The alternator shall be drip-proof, screen protected as per IP-23 degree of Protection. The rotor shall be dynamically balanced to minimize vibration. The engine and alternator shall be directly coupled by means of self-aligning flexible.				
1	3	COUPLING	The engine and alternator shall be directly coupled by means of self-aligning flexible flange coupling to avoid misalignment. The coupling shall be provided with a protecting guard to avoid accidental contract. Caterpillar / F.G Wilson / European/ USA /				
	4	Generator assembled by	equivalent				
	5	Output frequency	50HZ				
	6	Rated speed	1500rpm				
	7	Prime power	1250 KVA				
	8	Standby power	1400 KVA				
	9	Rated voltage	400/440 Volt 3 Phase, 4 Wire				
	10	Power factor	0.8				
	11	Nominal frequency	50 Hz				
	12	Voltage regulation (Max.)	≤±0.5%				
	13	Steady speed droop(%)	≤±0.5%				
	14	Exciter type	self excitation brushless				
	15	Class of Insulation	H Class				
	16	Gen set Controller module	EMCP4 / DSE7420/ Power Wizard latest model (Which can support InteliGen NT ComAp and complete Remote monitoring capabilities)				
	17	Protection grade	IP23				
	18	Speed governor	Electronic				
	19	Cooling system	Cooling system is designed for max ambient temp, Deg. 50C at rated load				

			Radiator fan and belt drive Fan and belt guard			
			Coolant drain line with valve			
			Coolant level sensor with water level			
			switch/ indicator Max. water temperature at load			
			Outlet water temperature Thermostat temperature range			
	20	Battery Charger	Automotive Battery Charger			
	21	Batteries	Gel Type With 900 CCA (3 Years Warranty)			
			Overload shutdown Short circuit shutdown			
			Low oil pressure shutdown Under & Over speed shutdown Under & Over voltage shutdown			
	22	Engine Protections	Over winding temperature shutdown			
			Phase sequence, Phase Failure monitoring			
			and tripping Under & Over Frequency Monitoring and tripping Reverse Power			
			Monitoring and tripping			
			Voltmeter Frequency meter Ampere meter			
	23	Metering	Hour meter, KWH Meter Alarms and faults			
			Oil pressure gauge Water temperature gauge Battery voltage & Fuel level			
			Heavy duty fabricated steel skid type based			
	24	Generator Frame	frame with anti- vibration mounting /Isolators, Engine and alternator shall be			
			mounted on a same frame steel skid.			
			Built-in damper for anti-vibration Two The bidder is to provide all OEM			
			recommended parts including consumables			
			(excluding Oil and Coolant) Required for schedule maintenance / operation for first 8			
			Service (minimum up to 2000 running hours			
			of operation) of the equipment but not limited to the following			
	25	Parts	1. Oil Filter (8 sets)			
			2. Fuel Filter (8 sets)			
			3. Water Separator (8 sets)			
			4. Air Filter (2 sets)			
			5. Fan Belt (2 sets)			
			6. Genuine AVR (1 set)			
	26	Warranty	Two year or 4000 working hours which one is earlier from the date of testing and			
			commissioning			
	Note: Vendor has to provide Operation & Maintenance during					
	"Maintenance Period" of 24 months after completion of job in all respects, including manpower deployment with existing manpower					
	of the Institute and providing them all operational trainings of the system and replacement or repairing of spare parts and consumables along with periodic servicing during maintenance period as per manufacturer operational manuals of equipment and required					
	applicable standards all necessary drawings & its software access					
	after the supply, Installation and commissioning, at no extra cost.BFabrication, providing, installation and testing of					↓
	B					
		synchronizing and AMF/ATS panel including all safeties to control 04 Nos. Generating sets as per load				
2	requirement with attached drawings.			1	Nos.	
	Technical Specification					
	1 Refurbishment/Upgrading of Existing LV Panels:					
						 •

	execute all the works. The Work shall include Testing, and commissioning of existing Synchronizing and AMF / ATS Panel installed at site, complete in all respects with arrangement and replacement of required spare parts.			
	The Automatic synchronization system contains all necessary functions for protection and control of the 4 Nos. Gen-set in parallel with KE by providing provision of Grid synchronization and soft changeover mechanism complete in all respects as per required applicable standards. It also contains all necessary 3-phase measuring circuits and all values and alarms are presented on the LCD display.			
1.1	Supply, installation, testing and commissioning of Auto Synchronization module which is capable to synchronize all the Gen sets of following capacities 4 Nos. 1250 kW Diesel Gen Set.	1	Job	
1.2	Supply installation, testing and commissioning of Control wiring & Containment between DG Set + Synch Module and synch Module on already provided ACB's inside enclosure or LV Panel with other accessories for DG sets system for Auto Synchronizing, Load Sharing and Load Management facilities. The Synch. Modules shall be enclosed in already provided Panel with ventilation fan. Complete in all respect.	1	Job	
1.3	Note: The existing panel size on site is 1800mmx750mmx800mm Supply & Installation of motor mechanism, UVT and Shunt coil for LV breaker which is already installed in existing LV Panel. The Contractor / Vendor shall also provide the services for existing breakers before energizing. Note: The already installed Merlin Gerin ACB capacity is 1600A &, model No is M20 Hi.	1	Job	
1.4	Supply, termination and laying of all required control cable will be supply by vendor. Control cables will be laying through already installed cable trays.	1	Job	
1.5	Supply installation, testing and commissioning of Bus Bar link to ACB. The Bus Bar shall be consist of 99.99% imported Copper of appropriate rating to meet the designed load requirement of 6300A including all safeties to be connected with existing busbar, Complete in all respect as per Standard.	1	Job	
2	The Contractor shall arrange the temporary connection between Incoming Busway and Outgoing Busway of Diesel Genset # 02 while working on Synchronizing panel and replacing its bus bar as per required applicable standards.	1	Job	
3	De-termination of existing cables installed from Diesel Gen Set # 01 to LT panels and handover to client.	1	Job	
4	Interconnection between Busways and 02 Nos. of Diesel Gen, Sets using 99.99% Imported Copper bus bars links and appropriate measures and materials as per required applicable standards.	1	Job	
5	Interconnection between Busways and 04 Nos. of Diesel Gen. sets using 99.99% Imported Copper bus bars links and appropriate measures and materials as per required applicable standards.	1	Job	
6	Interconnection between Busways and SYNCHRONIZING and AMF / ATS Panel using 99.99% Imported Copper bus bars links and appropriate measures and materials as per required applicable standards	1	Job	
7	Interconnection between Busways and Main LT Panels (Load Bus 1, Load Bus 2, Load Bus 3) placed in Electric room using 99.99% Imported Copper bus bars links and appropriate measures and materials as per required applicable standards	1	Job	
8	Complete System Quality inspection & check from a reputable recognized third- party vendor having experience of working in Generators, Switchgear and Synchronization Panel, during and after completion of all the works and before starting/energizing the system. Third-party inspection report must cover all the technical details of design & system compatibility and material quality after performing the required tests as per standards and payment will be made after submission of satisfactory compliance report with installation and completion report. Third-part inspection vendor must be registered and recognized with EIS or any other regulatory authority.	1	Job	
9	Operation & Maintenance during "Maintenance Period" of 24 months after completion of job in all respects, including manpower deployment with existing manpower of the Institute and providing them all operational trainings of the system and replacement or repairing of spare parts and consumables along with periodic servicing during maintenance period as per manufacturer operational manuals of equipment and required applicable standards, at no extra cost.	1	Job	
	SCOPE OF WORK			
10	Location of Site: 2 nd Floor of SMBB Institute of Trauma, Karachi			
	Main Points of Contract:			

1. Bidders must carefully read all the details of this bidding document and may visit and inspect the existing generating and allied systems at his own expense and responsibility, prior to submission of tender. After submission of bid, he shall be liable to comply all the terms and conditions including but not limited to mentioned in this document and no claim whatsoever shall be entertained. 2. Re-modification, Balance Work, Testing, and commissioning with full functionalization of existing 2 Nos. Cummins DG Sets (1250kW each) and its allied accessories installed at site complete in all respects with spare parts arrangement and replacement including all safeties & monitoring accessories to control & measure operational parameters and ensure that these 02 Nos. DG sets 1250kW each is compatible for connecting with each other as per required applicable standards and also maintain suitable operational environment for these generators to work. 3. Supply, Installation, Re-modification, Balance Work, Testing, and commissioning with full functionalization of Synchronization module and existing SYNCHRONIZING and AMF / ATS Panel installed at site including wiring, components, all accessories etc. including panel modification required (if any), complete in all respects with spare parts arrangement& replacement and existing bus bar replacement with 99.99% Imported Copper busbar of appropriate rating to meet the designed load requirement of 6300A including all safeties & monitoring accessories to control & measure operational parameters of 4 nos. of generating sets (02 Nos. of Cummins DG Sets. & 02 Nos. of Newly installed Diesel Gen set, 1250kW each) in parallel with KE by providing provision of Grid synchronization and soft changeover mechanism as per required applicable standards. The synch module shall be capable of communicating with the already present generator synch panel. The panels must be properly earthed and earth testing report must be provided. 4. The contractor shall arrange OEM trained technical resource of sync modules and PLC system to ensure uninterrupted power supply during installation and commissioning activities. 5. Complete control & Power wiring including termination at both ends module to module, module to generator or wherever required will be in scope of works. Complete in all respects. 6. Arrangement of temporary interconnection between Incoming Busway and Outgoing Busway of Diesel Genset # 02 while working on Synchronizing panel and replacing its busbar to ensure system integrity and backup power availability during work as per required applicable standards. 7. De-termination of existing cables installed from Diesel Genset #01 to LT panels and handover to client. 8. Interconnection between Bus ways and 04 Nos. of Diesel Gensets using 99.99% Imported Copper bus bars links and appropriate measures and materials as per required applicable standards. 9. Interconnection between Busways and SYNCHRONIZING and AMF / ATS Panel using 99.99% Imported Copper bus bars links and appropriate measures and materials as per required applicable standards. 10. Interconnection between Busways and Main LT Panels (Load Bus 1, Load Bus 2, Load Bus 3) placed in Electric room using 99.99% Imported Copper bus bars links and appropriate measures and materials as per required applicable standards. 11.Submission of manufacturer manuals, connection drawings, software, and programming manuals of all work after making them functional. 12. Submission of Copper certificate, breaker certificate, Synchronization module certificate, technical catalogues, component lists, Control drawings etc.

13. Submission of Third-party testing & inspection certificate.

- 14. Submission of operation & instruction manual, drawings and schematics in hardcopy and softcopy form detailing operating procedure and showing system failure scenarios of all equipment.
- 15. Supply, installation, re-modification, repairing, testing, and commissioning including transportation, shifting, and storing material at site, manufacturer manuals, drawings, submittals must be included in quoted price of all works & accessories, complete in all respects.
- 16. Repairing and shifting (as decided location) of existing Gen sets of 02 Nos. all the damages done to the building and existing system during work if any at no extra cost.
- 17. The contractor will do all the above work with his own forces and equipment.
- 18. The project will be on Turnkey basis which means that the contractor will be responsible for arranging all required items on its own including but not limited to batteries, sensors, even screws etc.
- 19. The essence of the contract is to ensure that the Diesel Generators Nos. 04 and Synchronization panel are functional and be able to run the desired load as mentioned in the specifications above all gen sets.
- 20. Operation & Maintenance during "Maintenance Period" of 12th months after completion of job in all respects, including manpower deployment with existing manpower of the Institute and providing them all operational trainings of the system and replacement or repairing of spare parts and consumables along with periodic servicing during maintenance period as per manufacturer operational manuals of equipment and required applicable standards, at no extra cost.

Manufacturing Experience/Quality Assurance:

- Subject to compliance with the requirements of the Contract Documents, acceptable manufacturers are to be firms regularly engaged in manufacture of all material specified in this document, whose products have been in satisfactory use under similar service conditions for not less than ten years.
- The manufacturer shall have more than 10 years' experience in the supply and installation of synch module for projects in Pakistan and must have a permanently residing team of certified technician available at site within 36 hours of complain.

LV Switchgear Panel/Synchronization Panel:

The Low Voltage Distribution Panels shall be completed in all respects with material and accessories, factory assembled, tested, and finished according to the Specifications and to the standard requirements.

The Low Voltage Distribution Panel shall:

- i. be front operation type,
- ii. be suitable for 400 Volts, 3 phase 4 wire, 50 Hz system,
- iii. be designed for flush mounting of all instruments on the front side,
- iv. have incoming and outgoing cable termination arrangement, terminal block/line up terminals,
- v. be provided with stainless steel name plate on the front side of door,
- vi. have all incoming and outgoing connections from top or bottom according to site requirements,

- vii. have door grounded by flexible braided copper strip,
- viii. have wiring diagram in the pocket inside the door of Panel.
- ix. have hinged protective metallic door required with knob/handle.
- x. have cable hanging arrangement.
- xi. have all Adjustable Type breakers
- xii. have Control breakers (MCB Type)

All the components used in the Distribution panel shall be type tested and must comply with the requirements of applicable standards.

Components:

The Synchronization Panel shall be provided with components required for the satisfactory operation of the panel and of the electrical system and must comply with the requirements of applicable standards. Specifications of typical components which maybe included but not limited to are follows:

i. Control module

The synchronization control module monitors the generator and indicates operational status and fault conditions, automatically starting or stopping the engines smartly on demand load or fault conditions.

- a) Control module should have comprehensive load sharing capabilities with minimum configurable 12 inputs and 12 configurable outputs.
- b) It should have an ability to record the 500 minimum log events to facilitate easy maintenance.
- c) Control module should have an extensive numbers of fixed monitoring and metering and protection features are included as well as comprehensive communication and system expansion option.
- d) Module should have following key load share features:
- Sequential set start.
- Manual voltage/ frequency adjustment.
- Automatic hour run balancing.
- Dead bus sensing.
- Bus failure detection.
- Direct governor and AVR control.
- Main (utility de-coupling test mode option.
- It should have built-in reverse relay protection.
- Flexibility to synchronies from Grid power
- e) RS485 remote communication ports should also be available with back lit LCD screen.
- f) Standard Features:
- Voltage (L-L, L-N)
- Current (Phase)
- Average Volt, Amp, Frequency
- kW, KVAr, kVA (Average, Phase, %)
- Power Factor (Average, Phase)
- kW-hr, KVAr-hr (total)
- Generator stator and bearing temp (with optional module)

g) Generator Protection:

- Generator phase sequence
- Over/Under voltage (27/59)
- Over/Under frequency (81 O/U)
- Reverse Power (kW) (32)
- Reverse Reactive Power (KVAr) (32RV)
- Overcurrent (50/51)

h) Engine Monitoring:

- Coolant temperature
- Oil pressure
- Engine speed (RPM)
- Battery voltage
- Run hours
- Crank attempt and successful start counter
- Enhanced engine monitoring (with electronic engines)
- i) Engine Protection
- Control switch not in auto (alarm)
- High coolant temp (alarm and shutdown)
- Low coolant temp (alarm)
- Low coolant level (alarm)
- High engine oil temp (alarm and shutdown)
- Low, high and weak battery voltage
- Over speed
- Over crank
- Low Oil Pressure

j) Control

- Run / Auto / Stop control
- Speed and voltage adjust
- Local and remote emergency stop
- Remote start/stop
- Cycle crank
- k) Inputs & Outputs
- Two dedicated digital inputs
- Three analog inputs
- Six programmable digital inputs
- Eight relay out
- Two programmable digital outputs
- 1) Communications
- Primary and accessory CAN data links
- RS-485 annunciator data link
- Modbus RTU (RS-485 Half duplex)
- ii. Bus Bars

The Bus bars shall be imported, tinned, made of 99.9% pure Copper high conductivity including accessories like, Fischer plates, nuts & bolts, mounting accessories etc. complete in all respects, electrolytic tin platted copper and shall be completely isolated and mechanically braced for the specified fault level. The identification of bus bars shall be by providing heat shrink color coded sleeves on complete bus bar lengths and these shall be red, yellow, and blue for phases and black for neutral. The earth bus bar shall be green.

The bus bars shall be for three phases, neutral and earth and shall be of appropriate size to meet the electrical and mechanical requirements of the system and must be suitable for the designed load of 6300A. The temperature rise shall not exceed 45oC at rated current.

Imported Copper certificate shall be submitted with bill of lading. Imported copper shall be checked prior to the installation at site.

iii. Digital Multimeter and Analyzers

All meters shall be flush mounting, Digital type with built-in selector switches. The front dimensions shall be $96 \times 96 \text{ mm}$ for meters.

The meters shall be of accuracy class 1.5 The ammeter shall be suitable for connection to 5 Amps secondary of current transformers or directly through shunt. The ammeters and voltmeters shall have measuring range as per the panel in which meters are installed.

iv. Current Transformers

Current transformers shall be provided having suitable transformation ratio. The current transformers shall be of suitable burden having accuracy class 1.0 The current transformers shall have 5 amps secondary.

v. Motorized/Manual Changeover Switches

Changeover switch must have three stable positions, unaffected by voltage fluctuations and vibrations, protecting loads from network disturbances. It must be capable of safe on-load switching for any type of load such that with its on-load transfer capabilities, it is not necessary to isolate loads prior to transfer.

vi. Electronic Voltage Relay

The voltage relay monitors the over voltage and the under voltage and the phase sequence L1, L2, L3 in an alternating three phase mains. Adjustment range +20% - 20% of the nominal voltage.

vii. Air-Circuit Breaker

TP ACB with Motorized Spring Charge mechanism, Tripping coil, shunt trip coil, & adjustable UVT and Overload, ground fault, instantaneous, long & short time protection

Other possible components:

viii. Shunt Trip

- Under Voltage Trip
- Motor mechanism

	Synchronizing Module
	Battery Charger
	Dry Batteries
	• Digital Voltmeter + VSS
	• Digital Ammeter + ASS
	• CT's
	• 14- Pin Relay with Base
	 Indication Lights R, Y, B
	 DP MCB
	• TP MCB
	Control Fuses with Base
	 Emergency Stop
	Key Switch
	 Push Reset
	Panel Socket
	 Panel Light with limit switch
	 Louver, Exhaust Fan with Thermostat
	 2.5mm Line Up Terminal
	• 2.5mm Line Op Terminar
Instal	lation:
Ilistai	
	All screws, nuts and bolts used for fixing the distribution board shall be galvanized.
	The Panel installation shall include connecting all incoming and outgoing cables.
	The cable entry in the boards shall be provided from top or bottom as required.
	All labor, equipment and tools required for complete installation and shall be
	provided by the Contractor. All outgoing and incoming cable connections shall be
	made, and special care shall be taken in fixing cable boxes and in cable connections
	to have no danger of leakage during operation. Earthing connections shall be made
	with the existing earthing pits of generators made by the previous contractor. The
	installation work must comply with the requirements of applicable standards
Minin	num Technical specifications of Synchronization Modules:
	The synch controller modules must have the following minimum features but not
	limited to:
1.	Expandable for both single and multiple gen-sets operating in standby or parallel modes.
2.	Detachable modular construction for a variety of extension modules
3.	Built-in synchronizer and load sharer to allow an integrated solution for gen-sets in standby, island
5.	parallel or mains parallel. Native cooperation of at least 4 gen-sets.
4.	
5.	
6.	Ability to connect with touch screen type HMI and/or other displays.
7.	Capable of auto start load sharing, multi generator load share, mains control and bus-tie breaker
	control without need for separate control/automation PLC-based system
8.	Should be able to synchronize both electronic and non-electronic gensets.
9.	Automatically control change over from mains (utility) to generator supply or run generator in
	synchronization with the main (utility) to provide no-break operation.
	. Support of engines with ECU (Electronic Control Unit)
	. Integrated genset solution and signal sharing via CAN bus or similar protocol
	. Genset performance log
	. Built-in PLC (no external automation system or PLC required)
	. Separate TFT display
15	Configurable soft keys

15. Configurable soft keys16. Trends

 shifts per day and hours per shift, he expects to work. ii. A list of all major items of constructional and erection plant, tools and vehicles proposed used in carrying out the Works at Site, including number of each kind, make, type, capacity equipment, working condition, which shall be deployed by him for Electrical Work and Ere Testing and Commissioning of the Works, in sufficient detail to demonstrate fully th equipment and installation will meet all the requirements of the Technical Provisions. iii. Design drawings and operation scenarios of Synchronization panels and components wh proposes to use during the work. iv. The procedure for installation of equipment and transportation of equipment and materials site. v. Organization chart indicating head office & field office personnel involved in manage supervision, and engineering of the Works to be done under the Contract. vi. The contractor shall list in this Schedule the key personnel he will employ from Head office 		Plug and play
 fault conditions, automatically starting or stopping the engines smartly on demand load o conditions. On the synchronization control module must be able to run 1 generator for emergency load i of synch failure. It must have monitoring system on Modbus or TCP/IP which can be displayed on simple de PC via software provided along with modules. Control module should have an extensive number of fixed monitoring and metering and prot features included as well as comprehensive communication and system expansion option. Automatic synchronizing and power control (via speed governor or ECU) Baseload, Import / Export, Temp by Power Peak shaving Voltage and PF control (AVR) Generator measurement: U, I, Hz, kW, KVAr, KVA, PF, kWh, kVAhr Mains measurement: U, I, Hz, kW, KVAr, PF Inputs and outputs configurable for various customer needs I× RS232 / 2× RS485 / RJ-45 interface with Modbus support Event-based history with customer-selectable list of stored values; RTC; statistic values Interface to remote display units USB slave interface The synchronization module must comply with the requirements of applicable standards. Proposed method of Performing Works: The contractor is required to submit a narrative outlining the method of performing the Works. The narrative should indicate in detail and include but not limited to: The sequence and methods in which he proposes to carry out the Works, including the num shifts per day and hours per shift, he expects to work. A list of all major items of constructional and erection plant, tools and vehicles proposed used in carrying out the Works at Site, including number of each kind, make, type, capacity equipment and installation will meet all the requirements of the Technical Provisions. Design drawings and operation scenarios of Synchronization panels and components wh proposes to used wing		
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 It must have monitoring system on Modbus or TCP/IP which can be displayed on simple de PC via software provided along with modules. Control module should have an extensive number of fixed monitoring and metering and prot features included as well as comprehensive communication and system expansion option. Automatic synchronizing and power control (via speed governor or ECU) Baseload, Import / Export, Temp by Power Peak shaving Voltage and PF control (AVR) Generator measurement: U, I, Hz, kW, KVAr, kVA, PF, kWh, kVAhr Mains measurement: U, I, Hz, kW, KVAr, PF Inputs and outputs configurable for various customer needs I x RS321 / 2x RS485 / RJ-45 interface with Modbus support Event-based history with customer-selectable list of stored values; RTC; statistic values Interface to remote display units USB slave interface The synchronization module must comply with the requirements of applicable standards. Proposed method of Performing Works: The sequence and methods in which he proposes to carry out the Works, including the num shifts per day and hours per shift, he expects to work. A list of all major items of constructional and erection plant, tools and vehicles proposed used in carrying out the Works at Site, including number of each kind, make, type, capacity equipment, working condition, which shall be deployed by him for Electrical Work and Err Testing and Commissioning of the Works, in sufficient detail to demonstrate fully th equipment, working condition, which shall be deployed by him for Electrical Provisions. Disgin drawings and operation scenarios of Synchronization panels and components wh proposes to use during the work. The procedure for installation of equipment and transportation of equipment and materials site. Organization chart indicating he	20.	The synchronization control module must be able to run 1 generator for emergency load in
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- i. Contractor will submit a list of at least 5 reputable, recognized third-party vendors engaged in supply, installation, testing & commissioning of Diesel Generators, Switchgears, and Synchronization panels & modules for last 10 years.
- ii. Client will choose a vendor from the contractor provided list. However, client has the right to include any other vendor name in the above list and choose other than the provided list, if deemed necessary.
- iii. The third-party vendor will thoroughly inspect & check all the works performed by the contractor as mentioned in this contract and will provide satisfactory certificate after performing the required tests as well in compliance with the requirements of applicable standards.
- iv. Third-party inspection report must cover all the technical details of design & system compatibility and material quality after performing the required tests in compliance with the applicable standards.
- v. The system will be energized after the obtaining of the above satisfactory certificate and the third-party vendor will be present at the time of energization.

2. Pre-energization Check:

Prior to energization, check all new and reused existing branch circuit cable, components, and wires for continuity of circuitry and for short circuits. Correct malfunction when detected.

3. Voltage and Current Values:

The voltage and current in each circuit shall be measured and recorded after all connections have been made and the circuit is under load.

4. Earth Resistance Test:

Earth resistance tests shall be made by the Contractor on the existing earthing system of Generators made by the previous contractor, separating and reconnecting each earth connection as required in compliance with the applicable standards.

5. Submittals:

Contractor shall furnish all instruments and personnel required for tests. Submit copies of certified test results and satisfactory certificates for review. Test reports shall include circuit tested, test type, date and time of test, test results, relative humidity, temperature, and weather conditions etc.

Final Submissions:

- 1. Contractor will submit operation, service & instruction manuals, drawings and schematics in hardcopy and softcopy form detailing operating procedure and showing system failure scenarios.
- 2. Manufacturer manuals of Generators and Synchronization panels & modules.
- 3. Single line diagram and layout of the complete power generation system.
- 4. Programming manuals, connection diagrams of Generators and Synchronization panels & modules showing & detailing operational & fault scenarios.
- 5. Copper certificate, breaker certificate, synch modules certificate and their catalogues, technical specifications, and company manuals.
- 6. As-built drawings showing all details including bus-bars arrangement and ratings/specifications.
- 7. Shop drawings, Isometric & disposed view of panels.
- 8. Technical catalogues of synchronization modules.
- 9. Component list of Synchronization panel.
- 10. Programming manuals & control drawings of synch panels and modules.
- 11. Testing, Commissioning, Monitoring, Installation& Completion report with Third Party Verification.
- 12. Earthing testing report of the system.
- 13. Any other necessary drawings, documents, manuals etc.
- 14. Magar testing report of the system.

Note: Vendor has to provide Operation & Maintenance during "Maintenance Period" of 24 months after
completion of job in all respects, including manpower deployment with existing manpower of the Institute
and providing them all operational trainings of the system and replacement or repairing of spare parts and
consumables along with periodic servicing during maintenance period as per manufacturer operational
manuals of equipment and required applicable standards all necessary drawings & its software access after
the supply, Installation and commissioning, at no extra cost.

Note:

1. The technical evaluation carried out by the Procurement Committee, SMBBIT, Karachi will be final.

I / We agree to abo	ove mentioned.		
Name of Contracto)r	Signature	
CNIC NO			(Copy must be attached).
Full Address			
Rubber Stamp			
Signature of M	anufacturers /Importe	ers/Sole Agents/Contractors:	
Name of Firm:			
Full Address: -			
Telephone No.	Office:	Cell No:	
Email Address	(if any)		

(ANNEXURE- C)

BID LETTER FORM

From: (Registered name and address of the bidder) To: Executive Director, Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi – 74200

Dear Sir / Madam,

Having examined the bidding document and amendment thereon we undersigned, offer to provide services to the works including in conformity with the terms and conditions of the bidding document and amendments there on, for the following work in response to your tender call dated______

Tender Title:

We undertake to provide services/execute the above project or it part assigned to us in conformity with the said bidding documents for an estimated sum of Rs. _____ (Rupees -

_____) (total bid amount in words and figures) which may vary in accordance with the schedule of prices attached herewith and coverage options made by SMBBIT or its user organization.

If our bid is accepted, we undertake to;

1) Provide services/execute the work according to the time schedule specified in the bid document,

2) Obtain the performance guarantee of bank in accordance with bid requirements for the due performance of the contract, and

3) Agree to abide by the bid Term & conditions, Special Conditions and all criteria of bidding document including pre-bid meeting minutes if any, which remain binding upon us during the entire bid validity period and bid may be accepted any time before the expiration of that period.

4) We understand that you are not bound to accept the lowest or any bid you may receive, nor to give any reason for the rejection of any bid and that you will not defray any expenses incurred by us in bidding.

Place: Date: Bidder's signature and seal.

CONTRACT AGREEMENT

<u>Tender Title</u>

This Contract Agreement (hereinafter called the Agreement) made on _____ day of _____Year.

BETWEEN

M/s.

A Contractor, having its office at **Bidder's address.** (Hereinafter mentioned as Contractor), which expression shall be deemed to mean and include its successors-in-interest and permitted assigns;

AND

SHAHEED MOHTARMA BENAZIR BHUTTO ISTITUTE OF TRAUMA A department under Government of Sindh, having its office at SMBBIT, Chand Bibi Road, Karachi Sindh, Pakistan hereinafter mentioned as "the Client", which expression shall be deemed to mean and include its successors-in-interest and permitted assigns; WHEREAS the Contractor has agreed to render certain services i.e. "**Tender Title**" to SMBBIT Karachi and has necessary know how and staff in the respect.

AND

WHEREAS the Client is desirous of availing the services offered by the contractor for "**Tender Title**" for its premises at the cost of **Rs.** _____/- (The contract amount) as per below mentioned **BOQ**.

Brief particulars of the services which shall be supplied / provided by the Supplier are as under:

Item. #	DESCRIPTION	Unit Quantity	Unit	Quoted Rate

Now this agreement witnesseth as follows:

1. In this agreement words and expression shall have the same meanings as are respectively assigned to them in the Terms & Conditions of Tender Enquiry referred to.

2. The Following documents after incorporating addenda, if any except these parts relating to Instruction to bidders, shall be deemed to form and be read and constructed as part of this Agreement, viz:

- a. Purchase order(s)/ Letter of Acceptance where applicable.
- b. The completed Form of Bid along with Schedules to Bid.
- c. Condition of Contract & Contract Data
- d. The priced Scheduled of prices
- e. The specifications

- 3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to execute and complete the Works and remedy defects therein in conformity and in all respects within the provisions of the Contract.
- 4. The Purchaser hereby covenants to pay the Supplier, in consideration of the execution and completion of the Works as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
- 5. The Contract Price of tender will be Rs: ____/Year;
- 6. That estimated cost of tender is on approximate basis and may vary in case of forced majeure or as per the demand of situation.

IN WITNESS WHEREOF the parties hereto have caused this Contract Agreement in accordance with their respective hands and seals, the day, month and the year first above written.

This contract will be extendible on the same rates till the allocation of new tender.

Signature of the Supplier

Signature of the Purchaser

(Seal)

(Seal)

Signed, Sealed and Delivered in the presence of:

Witness:

Witness:

(Name, Title and Address)

(Name, Title and Address)

FORM OF PERFORMANCE SECURITY

(Bank Guarantee)

Guarantee No	•
Executed on:	
Expiry date:	

[Letter by the Guarantor to the Employer]

Name of Guarantor (Bank) with complete address (Scheduled Bank in Pakistan):

Name of Principal (Contractor, Manufacturer, Supplier or any bidder) with complete address:

Penal Sum of Security (express in words and figures):

Letter of Acceptance No._____ Dated: _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bidding Documents and above said Letter of Acceptance (hereinafter called the Documents) and the said Principal we, the Guarantor above named, are held and firmly bound unto the Chief Operating Officer (COO), SMBBIT, Karachi (hereinafter called the Employer) in the penal sum of the amount stated above for the payment of which sum well and truly to be made to the said Employer, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has accepted the Employer's above said Letter of Acceptance for ______ (Name of Contract) for the ______ (Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents- during the original terms of the said Documents and any extensions thereof that may be granted by the Employer, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Condition of Contract are fulfilled.

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

We, ______ (the Guarantor), waiving all objections and defences under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer without delay upon the Employer's first written demand without cavil or arguments and without requiring the Employer to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the Employer's written declaration

that the Principal has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to Employer's designated Bank & Account Number. PROVIDED ALSO THAT the Employer shall be the sole and final judge for deciding whether the Principal (Contractor) has duly performed his obligations under the Contractor has defaulted in fulfilling said obligations and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the Employer forthwith and without any reference to the Principal or any other person.

IN WITNESS WHEREOF, the above-bounden Guarantor has executed this Instrument under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Witness:

1.

Guarantor (Bank)

(Name, Title, Signature & Seal)

Signature: _____

2.____

(Name, Title, Signature & Seal)

Name: _____

Title: _____

AFFIDAVIT (on Judicial Stamp Paper)

I/We, the undersigned [Name of the Supplier] hereby solemnly declare and undertake that:

- 1. I/We have read the contents of the Bidding Document and have fully understood it.
- 2. The Bid being submitted by the undersigned complies with the requirements enunciated in the bidding documents.
- 3. The Goods that we propose to supply under this contract are eligible goods within the meaning of this SBD.
- 4. The undersigned are also eligible Bidders within the meaning of the Standard Bidding Documents.
- 5. The undersigned are solvent and competent to undertake the subject contract under the Laws of Pakistan.
- 6. I/We have not paid nor have agreed to pay, any Commissions or Gratuities to any official or agent for SMBB Institute of Trauma related to this Bid or Award or Contract.
- 7. I/We are not blacklisted or facing debarment from any institute of Federal, Provincial Government or any Department / Agency / Organization / Autonomous body or Private Sector organization anywhere in Pakistan.
- 8. That undersigned has not employed any child labor in the organization/unit.
- 9. I/We understand that the Selection and Rate Contracting Committee of the Procuring Agency is not bound to accept the lowest or any other bid they may receive.

I/We affirm that the contents of this affidavit are correct to the best of our knowledge and belief.

Signatures with stamp

Name: _____

Designation:

CNIC No._____ (Copy must be attached)

For Messrs. [Name of Supplier]

UNDERTAKING (Stipulated Time)

I/We, the undersigned [**Name of the Supplier**] hereby solemnly declare and undertake that: Supply of Quoted items will be delivered in stipulated time as mentioned in bidding data.

Signatures with stamp Name: ______ Designation: ______ CNIC No._____ (Copy must be attached) For Messrs. [Name of Supplier]

INTEGRITY PACT

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC PAYABLE BY THE SUPPLIERS/CONTRACTORS/CONSULTANTS

Dated:

Contract Number:NO.Contract Value:Rs.Contract Title:Tender Title

M/s. ______hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh (GoS) or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoS) through any corrupt business practice.

Without limiting the generality of the foregoing, **M/s.** _______ represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit, in whatsoever form, SMBBIT Karachi (PA), except that which has been expressly declared pursuant hereto.

M/s. ______ certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with PA and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

M/s. ________ accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to PA under any law, contract or other instrument, be voidable at the option of PA.

Notwithstanding any rights and remedies exercised by PA in this regard, **M/s.** ______agrees to indemnify PA for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to PA in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by **M/s.** ______ as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit, in whatsoever form, from PA.

M/s._____

Executive Director / DDO