

NAME OF ITEM	:	SUPPLY, ERECTION AND COMMISSIONING OF
/ WORK		(I) 1010 KVA DIESEL GENERATING SET AND ITS
		ACCESSORIES AND (II) 1600 KVA 22KV/433V
		OUTDOOR TRANSFORMER - 2 NOS., AND
		ACCESSORIES FOR SALEM DCMPU LTD.,
TENDER REFERENCE NO	:	1111/Proj.4/2022, Dated:28.02.2022

### PART - I TECHNICAL BID

# THE TAMILNADU COOPERATIVE MILK PRODUCERS' FEDERATION LTD CHENNAI 600 035

Tender document issued to
M/s
Cost of Tender document remitted under
receipt No Date
(or)
Tender downloaded from website on
at free of cost

The Dy. General Manager (Engg.), TCMPF Ltd.,.

### **TENDER INFORMATION**

1.	Name and address of the Purchaser	:	The Dy. General Manager (Engg.), Tamilnadu Cooperative Milk Producers' Federation Ltd., Head Office, Aavin Illam, 3-A, Pasumpon Muthuramalinganar Salai, Nandanam, Chennai – 600 035. E-Mail: aavindgmeng@yahoo.co.in
2.	Name and address of the User		The General Manager, Salem DCMPU Ltd.,
3.	Name of the Item / Work	:	Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories for Salem DCMPU Ltd.,
4.	Tender Reference Number	:	1111/Proj.4/2022
5.	Source of Fund		DIDF Scheme
6.	Tender Estimated Value	:	Rs.550.00 Lakhs
7.	Earnest Money Deposit (EMD)		Rs.5,50,000.00
8.	Cost of Tender Document	••	Rs.2,000/- + 18% GST and Rs.100/- extra by post either by cash or demand draft in favour of TCMPF Ltd. payable at Chennai drawn from any Indian Nationalized Bank / Scheduled Commercial Bank.  Alternatively, Tender documents can also be downloaded from the designated website at free of cost (i.e.) www.tenders.tn.gov.in and www.aavinmilk.com for submission of tender by post (or) courier / www.tntenders.gov.in for e-submission.
9.	Sale of tender	:	From: 07.04.2022 To 11.05.2022
10.	documents  Date of Pre-Bid meeting	:	Time: 11.00 AM To 3.00 PM  Date: 20.04.2022  Time: 11.30 AM
	Last date and time for submission of the two part tender – both technical and commercial bids.		Date: 12.05.2022 Time: 2.00 PM
	Date and time of opening of Part I Technical Bid Document.	:	<b>Date:</b> 12.05.2022 <b>Time:</b> 2.15 PM
	Date and time of opening of Part II Financial Bid		Financial Bid will be normally opened within 60 days from the date of opening of Part I pre qualifications-technical bid. The date of opening of Financial Bid will be informed to the eligible tenderers who are found and declared as qualified as per Part I technical bid.
14.	Place of Sale of Tender Documents, Pre- Bid meeting & Part I Technical Bid and Part II Price Bid opening	:	The Dy. General Manager (Engg.), Head Office Tamilnadu Cooperative Milk Producers' Federation Ltd., Aavin Illam, 3-A, Pasumpon Muthuramalinganar Salai, Nandanam, Chennai – 600 035.

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### 1.0. TECHNICAL BID - CHECK LIST

### **PREAMBLE OF TENDER:-**

1.1. The Dy. General Manager (Engg.), Head Office, TCMPF Ltd. invites Bids by way of E-Submission / OFF Line from eligible bidders on behalf of The General Manager, Salem DCMPU Ltd., by two cover system for Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories for Salem DCMPU Ltd.,

### 1.2. BIDDER TO FILL IN THE CHECK LIST GIVEN BELOW:

### (State YES / NO for each item)

Kindly ensure compliance of the under-mentioned requirements, as per Tender Terms and Conditions.

### 1.3. The tender is offered for:

S.N.	Name of the work		Remarks	
1	Whether two covers for each item have been was sealed separately as "Technical bid" & "Commercial bid" (whichever is applicable) and both the covers enclosed in a common overall envelope duly superscribed as "Tender for Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories for Salem DCMPU Ltd."		Yes / No	
2.	Whether the EMD amount as detailed below is technical bid	enclosed in the		
Item No.	Name	EMD amount		
1.	Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories for Salem DCMPU Ltd.	Rs.5,50,000.00	Yes / No	
3.	If so, whether D.D. or Bank Guarantee is attached with the Tender offer - Part I / Tech.Bid		Yes / No	
4.	If so, Details of D.D. or Bank Guarantee N which drawn etc. may be furnished D.D./BG No(s)	e and Branch ging Director, It specified above rocurement Portal	Yes/No	
5.	If EMD exemption is sought for, whether necessary documentary proof/evidence such as EM Part – II as per MSMED Act 2006 for SSI Certificate / Udyog Aadhar enclosed			

	in the technical bid for tenderers from the state and if from outside the state (Tamilnadu) whether NSIC certificate enclosed	
6.	Whether details of infrastructural facilities such as equipment / man-power / financial statement (FY - 2018-19, 2019-20 & 2020-21) details etc., are enclosed.	Yes/No
7.	Whether details of past experience (i.e) Purchase order copy(s) for same capacity (or) above of DG Set and Transformer and Accessories	Yes/No
8.	Whether satisfactory performance certificate from client(s) for the above such supply with features mentioned in the technical specification tendered are enclosed	Yes/No
9.	If so, whether necessary supportive documents such as attested copies of Supply Order / Work order, delivery challans, enclosed.	Yes / No
10.	Whether copies of attested GST Registration certificates enclosed	Yes / No
11.	Whether copy of attested PAN card enclosed	Yes / No
12.	Whether the Minutes of Pre-Bid meeting duly signed and sealed has been enclosed along with Technical Bid Part-I	Yes/No
13.	Whether all the pages in the tender documents – Part I (Tech. Bid) and Part II (Commercial Bid) have been duly signed by authorized signatory	Yes / No
14.	Whether the Commercial bid is filled in detail in the prescribed format for break-up, equipment-wise and for abstract	Yes/No
15.	Whether these two sealed covers for Part - I "Technical Bid" and Part II – "Commercial Bid" – put in a larger cover duly superscribed, addressed and wax sealed at appropriate places.	Yes/No

**Note:** Please ensure that all the relevant boxes are marked YES / NO against each column.

**Important Note:** Bidders must ensure that all the required documents indicated in the tender document are submitted without fail. Bids received without supporting documents for the various requirements mentioned in the tender document are liable to be rejected at the initial stage itself.

### 2. TWO PART TENDER APPLICATION

### **TECHNICAL (PRE-QUALIFICATION) BID & PRICE BID APPLICATION**

To

M/s.

The Dy. General Manager (Engg.),
TCMPF Ltd.,
Head Office, Aavin Illam, 3-A,
Pagumpon Muthuramalingapar Salai

Pasumpon Muthuramalinganar Salai, Nandanam, Chennai – 600 035.

Sir,

Sub: Two Part tender – Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories for Salem DCMPU Ltd. – Submission of Documents – Regarding.

<><><>

Having examined the two part tender documents consisting of Part I technical bid pertaining to pre-qualification and part II commercial bid with price quote, I/We hereby submit all the necessary documents and relevant information for bidding the above mentioned tender.

The application is made by me/us on behalf of ...... in the capacity of ...... duly authorized to submit this two part tender offer.

Necessary evidence admissible in law in respect of authority assigned to me on behalf of the bidding firm is herewith attached.

I submit the documents herewith taking into consideration of all the instructions, terms and conditions in the detailed two part tender notice.

I/We understand that The Dy. General Manager (Engg.), TCMPF Ltd., Chennai reserves the right to reject any tender offer fully or partly without assigning any reasons thereof.

I/We hereby agree to hold the tender offer valid for acceptance for a period of 120 days from the date of opening of Part – I – Technical bid.

Signature of the Applicant Including title capacity

(NAME IN BLOCK LETTERS)

### Enclosures:

- 1. Evidence of authority to sign
- 2. Latest brochures if any
- 3. Part I pre-qualification Technical bid in separate sealed cover
- 4. Part II commercial bid with price quote in separate sealed cover.

### 3. INSTRUCTIONS TO THE TENDERERS

This two part tender document consists of:

Part I - Technical Bid for Pre-Qualifying

Part II - Commercial bid for price-quote schedule.

- 3.1 Read all the terms and conditions of the two part tender before to start filling up.
- 3.2 The tenderers are to submit the **original set** of the two part tender (both Part I Technical Bid and Part II Commercial Bid) duly filled in, attach necessary documents and are advised to retain the duplicate set of documents for records.
- 3.3 The part I – Technical Bid for Pre-qualification consisting of pages......and the Part II - Commercial bid for price-quote schedule consisting of pages...... should be submitted in two different covers duly superscribed as "Tender for the Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories for Salem DCMPU Ltd." and again put both the sealed technical bid cover and commercial bid cover in a larger wax sealed cover duly superscribed as "Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories for Salem DCMPU Ltd." and addressed to "The Dy. General Manager (Engg.), TCMPF Ltd, Head Office, Aavin Illam, 3-A, Pasumpon Muthuramalinganar Salai, Nandanam, Chennai – 600 035." either in person or by post so as to reach on or before the time and date specified. Tenders received after the specified date and time shall be summarily rejected.
- 3.4 The tenderer shall submit tenders in person or by post or courier or by electronic submission through the designated website www.tntenders.gov.in as provided in the TNTT Rule 18 (1) and 18 (3).
- 3.5 a).If the envelope is not sealed and super-scribed as instructed, no responsibility will be assumed for any misplacement of tender or premature opening of the envelope or parcel.
  - b). Telegraphic / FAX Tenders will not be accepted.
  - c). E-Tendering facility is available for this tender.
- 3.6 The quantities mentioned in the tender document are approximate. The tender accepting authority shall be permitted to vary the quantities finally ordered and execute the work through the contractor to the extent of 25% (Twenty five percent) either way of the requirements.

I agree to abide by the above instructions

- 3.7 Go through the check slip given and ensure compliance of the terms and conditions.
- 3.8 The tenderer is specifically informed that all the pages in both Part I Technical Bid and part II Commercial Bid should be signed at the bottom of each page without any omission by the authorized signatory with name and seal of the firm.
- 3.9 The signatory of the tender should indicate his/their status in which he/they have signed and submit necessary documentary proof admissible in law in respect of such authority assigned to him/them by the firm.
- 3.10 If the Qualification application is made by a FIRM in partnership, it shall be signed by all the partners of the firm with their full names and current address or by a partner authorized by the firm (either as per Articles of the Deed of Partnership / by power of attorney)- for signing in Tenders, Agreements etc. In which case, certified copy of the registered deed of Partnership along with the current address of all the partners and a certified photocopy of the Registered Power of Attorney issued in favour of the Signatory, should be produced.
- 3.11 If the Qualification Application is made by a Limited Company or a Limited Corporation, it shall be signed by a duly authorized person holding the Power of attorney for signing the application, in which case, the certified copy of the power of attorney shall accompany the qualification application. Such limited company or corporation shall also furnish satisfactory evidence of its' existence along with the Qualification schedule.
- 3.12 The tenderer who are downloading the document from the web site are instructed to check the web site for corrigendum after the date of pre-bid meeting, for any amendments (pre-bid minutes) (if any issued) They are instructed to down load the above amendments and enclose it along with the technical bid document duly authenticating while submitting without fail. Failure to submit the pre-bid minutes will lead to rejection of the tender offer.
- 3.13 The tenderer shall provide Raw material test certificates, Manufacturer Test Certificates and also arrange to provide instrument for identification of material to conform as per technical specification during the inspection.
- 3.14 Detailed evaluation done on the basis of the Documents / Records / Evidences / Certificates produced by the Applicant in the Technical Bid.

I agree to abide by the above instructions

### **4.0.GENERAL TERMS & CONDITIONS**

4.1. Tender under sealed two part tender system (i.e.) Technical Bid (Prequalification) & Price Bid (item rate tenders) are invited for and on behalf of The General Manager, Salem DCMPU Ltd., by The Dy. General Manager (Engg.), Head Office, TCMPF Ltd. for the Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories for Salem DCMPU Ltd.

4.2

- 4.2.1. The tenderer should be manufacturer / supplier of DG Set and Transformer
- 4.2.1.(a) The contractor should be an electrical ESA/EA license holder issued by a competent authority and furnish a copy of license along with part-1 technical bid.
- 4.2.2. The tenderer should have previous experience in having supplied and commissioned same capacity (or) above of DG Set and Transformer and Accessories, in India either to any cooperative institution or reputed dairies / firms.
- 4.2.3. The tenderer should have supplied and commissioned same capacity (or) above of DG Set and Transformer and Accessories, for which tender called for, and enclose copies of purchase order / supply order within a period of 5 years.
- 4.2.4.The performance certificate for above such supply for which Purchase Order / Supply order furnished as per 4.2.5 from the reputed purchaser shall be enclosed in the technical bid part I. The performance certificate received from purchaser / client should be of within a period of 3 years.
- 4.2.5.The Tenderer should have minimum experience of 5 Years in the manufacturing and supplying of DG Set and Transformer and Accessories. Copies of Registration of firms with list of activities/GST registration certificate etc. should be enclosed as supporting document.
- 4.2.6.If the tenderer is an authorized dealer / supplier of original equipment manufacturer (OEM), the tenderer shall furnish the authorization letter from the original equipment manufacturer (OEM) for supply of DG Set and Transformer and Accessories. The original equipment manufacturer (OEM) can authorize only one dealer / supplier
- 4.2.7.If the tenderer is an authorized dealer / supplier for DG Set and

  Transformer and Accessories then the experience of the manufacturer for

  Noted and agreed to the above

supply of DG Set and Transformer and Accessories, their performance shall be taken for evaluation of technical bids, even if the supply has been made either by the manufacturer directly or through other agencies.

4.3.

- 4.3.1 PART I TECHNICAL BID, wherein the pre-qualification, based on various factors such as supply, capacity etc., suitability and eligibility of the tenderer will be evaluated, considered and decided prior to opening of commercial Bids under PART II of the tender.
- 4.3.2.THE PART I technical bid shall be opened on **12.05.2022 at 02.15 PM**. in the presence of the tenderers or their authorized representative who opt to be present during the opening.

4.4.

- 4.4.1. The PART II Commercial Bid of the tenderers who do not satisfy any/all the terms and conditions specifically so mentioned under PART I technical, shall not be considered and shall not be opened as non responsive.
- 4.4.2.PART II Commercial Bid, wherein the rates tendered by those who qualify for and are selected as per the terms and conditions prescribed in PART I TECHNICAL BID only will be considered and decided for the award of the contract for the Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer 2 Nos., and Accessories for Salem DCMPU Ltd.
- 4.5. The Part II commercial bids shall normally be opened within 60 days from the date of opening of the Part I pre-qualification/ technical bid in the presence of tenderers or <a href="their authorized representatives">their authorized representatives</a> who opt to be present. The date of such opening of commercial bid will be informed separately to those who qualify in the PART I technical bid.
- 4.6. The tenderer is specifically informed that all the pages in both Part I Technical Bid and Part II Commercial Bid should be signed at the bottom of each page without any omission by the authorized signatory with name and seal of the firm.
- 4.7. The tender forms are not transferable or assignable.
- 4.8. The signatory of the tender should indicate his/their status in which he/they have signed and submit necessary documentary proof admissible in law in respect of such authority assigned to him/them by the firm. If the tender opening day is declared as a holiday, the tenders shall be

received and opened immediately on the next working day at the same time and place.

### 4.9 E.M.D. PAYABLE:

- 4.9.1 Tender must be accompanied with the prescribed amount of EMD along with tender, if e-tender, the EMD DD should be dropped in the tender box before closure time or may be paid through online in TN e-Procurement Portal and scanned copy of proof for payment of EMD (ie. e-payment receipt) has to be uploaded.
- 4.9.2 EMD Payable is as detailed below:-

SI. No.	Name of equipment	Qty.	EMD amount
1	Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories for Salem DCMPU Ltd.	1 Job	Rs.5,50,000.00

The EMD amount to be drawn by means of the **Demand Draft or it shall** be submitted by means of Bank Guarantee for the period of 12 months and extendable as and when required from any Indian Nationalised Bank or Scheduled Bank drawn in favour of the "Managing Director, TCMPF Limited," Payable at Chennai. IT SHALL BE ENCLOSED WITH THE PART I TECHNICAL BID ONLY. For e-Submission the EMD amount paid through online in the TN e-Procurement Portal. No other form of remittance shall be accepted.

- **4.9.3**.SSI Units claiming exemption from the payment of EMD,
  - Shall enclose a copy of EM Part II as per MSMED Act 2006 for SSI
     Certificate obtained from the General Manager, District Industries
     Centre / Udyog Aadhar, in respect of items manufactured by them for
     which tenders have been called for alone will be granted exemption
     from payment of EMD.
  - 2. In respect of SSI units located outside the state (Tamilnadu), such of these units registered with NSIC in respect of items manufactured by them for which tenders have been called for alone will be granted exemption from payment of EMD.
- 4.9.4. Tenders not accompanied with Demand Draft or Bank Guarantee or Online Payment towards the prescribed EMD or the relevant documentary proof for the exemption thereon shall be summarily rejected.

- 4.9.5. The EMD remitted by the tenderer shall be forfeited in full.
  - 1). If the tenderer submit fresh offer / revises offer in case of any omission subsequently after opening.
  - 2). If withdraws his tender or backs at before the expiry of validity period or after acceptance.
    - 3). If revises any of the terms quoted during validity period.

### 4.9.6. MODIFICATION AND WITHDRAWAL OF BIDS

- 4.9.6.1. No Tenderer shall be allowed to withdraw the tenders after submitting the tender.
- 4.9.6.2 A Tenderer may submit a modified Tender before the last date for receipt of tender: Provided that where more than one Tender is submitted by the same Tenderer, the lowest eligible financial tender shall be considered for evaluation.
- 4.9.6.3 Each bidder's modification notice shall be prepared, sealed, marked and delivered with the outer and inner envelops additionally marked MODIFICATION as appropriate.
- 4.9.6.4 No bid may be modified after the deadline for submission of Bids.
- 4.9.7 Bidders shall submit offers that comply with the requirements of the bidding documents, as indicated in the technical specifications. "Alternatives will not be considered".
- 4.9.8 Communication to the unsuccessful Bidders will be sent after the communication sent to the successful Bidder. Within 90 (Ninety) days from the date of the receipt of refund vouchers duly stamped and signed from the unsuccessful Bidder, refund of Earnest Money Deposit will be made.

### 4.10.PAN/GST REGISTRATION/CLEARANCE CERTIFICATE:

- 4.10.1.Tenderers shall furnish attested Photostat copies of valid GST Registration Certificates along with the tender technical bid Part-I.
- 4.10.2.Tenderers shall furnish attested Photostat copy of PAN Registration Certificates along with the tender technical bid Part-I.
- 4.10.3. Tenderers have to furnish the latest valid S.T. Clearance Certificate before issuance of final orders.
- **4.11.ENCLOSURES:** The tenderer should submit the following documents **duly** attested by Notary Public along with the Part I technical bid.
  - Purchase orders as supportive documents to show the past supply having supplied to any of the reputed dairies / firm(s) /coop(s) in India.

- 2). Satisfactory performance certificate from client(s) for the above equipments tendered.
- 3). If the tenderer is an authorized suppliers of a manufacturer, the tenderer shall furnish the authorization letter from the manufacturer for supply of DG Set and Transformer and Accessories
- 4). Photostat copies of valid GST Registration Certificate, PAN Certificate.
- 5). Infrastructure facilities Capacity of Firm / Supplier:-
  - (i). Structure and Organization with details of Technical Personnel etc. Annexure A
  - (ii). Financial Capability Statement Annexure B
  - (iii). Building, Plant and Equipments
  - (iv). Details of Abandonment of work Litigation / debarring done Annexure C
  - (v). Affidavit Annexure D
  - (vi). Credit Facilities Bank Certificate Annexure E

### 4.12. SECURITY DEPOSIT

The successful tenderers would be required to sign an agreement and furnish a Security Deposit of 5% of the order value, drawn by means of Demand Draft or it shall be submitted by means of Bank Guarantee for the period of 18 months and extendable as and when required from any Indian Nationalised Bank or Scheduled Bank drawn in favour of "Managing Director, TCMPF Ltd" payable at Chennai within 15 days of notifying them. The EMD already paid along with tender shall be adjusted against SD to be paid by the successful tenderer.

No exemption will be given from payment of Security deposit under any circumstances as per TNTT Act and the same should be remitted by above means. Any other form of remittance will not be accepted.

4.12.1.The security deposit will be refunded only after the expiry of 6 months from the date of satisfactory completion of the contract satisfactorily complying to the specification of the equipment to take care of the workmanship of the agency.

#### 4.13. AGREEMENT:

The successful tenderer has to execute an agreement on Rs.100/-non-judicial stamp paper incorporating the terms and conditions of the contract and the specification within 15 days from the date of intimation of the acceptance of the tender. In case of default of either of the

- conditions (i.e) remitting the security deposit or execution of the agreement within the time allowed, the EMD paid is likely to be forfeited by the Federation.
- 4.13.1. If the contractor fails to execute the contract satisfactorily at the tendered rate, the security deposit will be forfeited by the Federation.
- 4.13.2. If the Federation incurs any loss / additional expenditure due to the negligence of the contractor in connection with the work during the period of contract, the same shall be recovered together with all charges and expenses from the contractor.
- 4.13.3. The breakages or damages, if any, caused by the contractor to the property of the Federation, the cost will be recovered from the contractor.
- 4.13.4. **RATES AND PRICE:** This is a fixed price contract. Price adjustment clause (to account for raise or fall in the money value / statutory taxes during the contract period) is not operatable for this contract. However any variation in the statutory levies and Taxes by State Government / Central Government shall be effected on the end price to the benefit of either the contractor or Federation as the case it may be.
- 4.13.5. No interest shall be paid on Earnest Money Deposit/Security Deposit.
- 4.13.6. The Agreement in Rs.100/- non-judicial stamp paper shall be signed and returned within 15 days of receipt of the Design, Supply, Erection, Installation, Testing and Commissioning order along with the D.D. for Security Deposit.

### 4.14. DELIVERY SCHEDULE:-

4.14.1. Supply : 3 - 4 months from the date of

receipt of purchase order (or) 1 month from the readiness of site

whichever is later

4.14.2. Erection, 1-2 months from the readiness of

Installation, Testing and site (or) receipt of Materials at site

Commissioning whichever is later.

### **4.15. PAYMENT TERMS:**

### 4.15.1. SUPPLY:

a). If the single order of any successful tenderers is over Rs.1 crore., an advance payment of 10% of the basic value of the order will be considered against irrevocable bank guarantee for a period till completion of entire supply of DG Set and Transformer and Accessories and such advance shall Noted and agreed to the above

be recovered with interest applicable at the time of recovery from the bills payable at the time of release of 70% basic price + taxes and other charges.

### (OR)

70% of basic price + taxes and other charges shall be released on receipt of the DG Set and Transformer and Accessories (Equipment's wise) in good condition at site.

b). The remaining 30% payment shall be released after the Erection and satisfactory commissioning of the DG Set and Transformer and Accessories at site.

### (OR)

If the site is not ready due to unavoidable circumstances for carrying out the Erection, Installation, Testing and Commissioning of the equipments within 3 months period, then the balance 30% payment on supply will be considered for release on submission of irrevocable Bank Guarantee for a value equal to 30% of supply order value, for one year and extendable for another one more year with an agreement on a non-judicial stamp paper to a value of Rs.100/- (Rupees hundred only) for execution of project subsequently without altering the Erection, Installation, Testing and Commissioning charges.

### 4.15.2. ERECTION, INSTALLATION, TESTING AND COMMISSIONING:

- a). 70% of the Erection, Installation, Testing and Commissioning charges shall be released on satisfactory completion of the Erection, Installation, Testing and Commissioning of the DG Set and Transformer and Accessories
- b). Balance 30% of Erection, Installation, Testing and Commissioning charges shall be released after 3 months from the date of satisfactory commissioning and performance of the DG Set and Transformer and Accessories.

### N.B: NO OTHER TERMS OF PAYMENT WILL BE ENTERTAINED.

### **PENALTY CLAUSE:**

- 4.15.3. If the tenderer / Contractor fails in his due performance of the contract within the time fixed in the schedule accompanying the order or extension of time granted:-
  - (a) Liquidated damages will be levied at 1% per month for the number of days that the supply / work has been delayed for the contract value less than Rs.50,00,000/- (Rupees fifty lakhs) as below subject to:-

(i). The Liquidated Damages be imposed on the value of undelivered / delayed supply of materials / machineries instead of total value of contract, if the tender is for the Design, Supply, Erection, Installation, Testing and Commissioning of two or more number of machineries and where the materials / machineries can be put into use separately.

### (OR)

- (ii). The Liquidated Damages be imposed on the total value of the contract for delayed supply / completion of material / work as per the milestone fixed in the tender (i.e) turnkey job inclusive of Civil work, supply of Mechanical/Electrical item, Erection etc., since the machineries partly supplied could not be put into operation and affect the functioning of system and other accessories as per plan.
- (b). The Liquidated Damages be imposed for the delayed supply / Erection, Installation, Testing and commissioning at 0.5% per month, if the contract value is more than Rs.50.00 Lakhs (Rupees fifty lakhs). The maximum deduction is limited to 5% on LD.
- 4.15.4. Time being the essence of contract no variation shall be permitted in the delivery time as prescribed in the delivery schedule. If the tenderer fails to supply and execute the work in full or part of the order as per the delivery schedule, the Federation shall reserve the right to cancel the order besides forfeiture of Security Deposit.
- 4.15.5. Notwithstanding anything contained in the tender schedule, no obligation rests on the Federation to accept the lowest tender and the Federation shall also have the right to accept or reject any or all the tenders fully or partly without assigning any reasons.
- 4.15.6. For violation of any of the terms and conditions of the contract, the Federation reserves the right to terminate the contract, with or without notice as applicable.
- 4.15.7. On termination of contract, the Security Deposit is liable to be forfeited and any of the resultant loss beyond Security Deposit will be recovered from the contractor by legal means apart from forfeiture of any amount due to the contractor.
- 4.15.8. (a). If the tenderer defaulted in any of the previous tenders to execute agreement or to pay Security Deposit or to supply ordered quantity

either in part or full will not be eligible from participating in this tender.

(b). If the successful tenderer either in federation TCMPF or in the DCMPU defaulted to execute agreement or to pay Security Deposit or to supply ordered quantity either in part or full shall be debarred from participating in the subsequent tenders for a period of 3 years.

### **4.16. WARRANTY:**

A warranty certificate shall be furnished on the workmanship, parts and performance of the DG Set and Transformer and Accessories for a period of 18 months from the date of supply or 12 months from the date of satisfactory commissioning whichever is later. If any defects are noticed in the equipments during the warranty period the same should be rectified at site at free of cost and charges.

### 4.17. FORCE MAJEURE:

Failure or delay in the part of tenderer for supply due to force majeure causes enumerated here under shall be considered, provided the supplier produces documentary evidence.

- a. Any cause which is beyond the reasonable control of the tenderer.
- b. Natural phenomena, such as floods, drought, earthquakes and epidemics.
- c. Act of any Govt. Authority, domestic or foreign, such as wars declared or undeclared quarantines, embargoes licensing control on production or distribution restrictions.
- d. Accident and disruptions such as fire, explosion, increase in power cut with respect to date of tender opening etc.,
- e. Strikes, slow down and lockouts.

The cause of force majeure condition will be taken into consideration only if the supplier notifies within 30 days from the occurrence of such eventualities. The purchaser shall verify the facts and grant such extension as the facts justify. For extension due to force majeure conditions, the supplier shall submit his representation with documentary evidence for scrutiny by the purchaser and decision of the purchaser shall be binding on the time.

### 4.18. **DISPUTES AND ARBITRATION:**

In case of disputes arising out of this tender, an arbitrator as mutually acceptable to the tenderer and Federation will be appointed by the Managing Director, TCMPF Limited. The arbitrator's decision shall be final, conclusive and binding on both the parties.

### 4.19. LEGAL JURISDICTION

In case if either party to the tender is aggrieved by the award of the arbitrator so appointed as per clause 4.18 or otherwise, they can appeal to Court of Deputy Registrar (Dairying), Thiruvallur. The legal jurisdiction will be only Deputy Registrar (Dairying), Thiruvallur Court.

### 4.20. PERFORMANCE GUARANTEE:

If the value of supply order is Rs.50 lakhs or more, the contractor shall provide a performance guarantee at the time of getting 70% payment for the 10% of the supply order value of the DG Set and Transformer and Accessories ordered as Bank Guarantee from a Nationalized Bank / Scheduled Banks for a period of one year and extendable to one more year if needed.

### **4.21. INSPECTION:**

After issue of purchase order to L1 Firm, the material inspection will be conducted at Supplier's site and Purchaser's by TCMPF Ltd., / Third Party agency as the case it may be.

### 5.0. PRE QUALIFICATION CRITERIA - TECHNICAL BID (PART-I)

The pre-qualification tender/PART-I technical bid will contain the under mentioned aspects pertaining to the prospective suppliers about their suitability, capacity, financial status, antecedents, past performance etc. The conditions are:-

- 5.1. Tenders not accompanied with Demand Draft or Bank Guarantee or Online Payment towards the prescribed EMD or the relevant documentary proof for the exemption thereon shall be summarily rejected
- 5.1.1.The tenderer should be manufacturer / supplier of DG Set and Transformer and Accessories
- 5.1.1.(a) The contractor should be an electrical ESA/EA license holder issued by a competent authority and furnish a copy of license along with part-1 technical bid.
- 5.2. The tenderer should have previous experience in having supplied and commissioned same capacity (or) above of DG Set and Transformer and Accessories, in India either to any cooperative institution or reputed dairies / firms.
- 5.3. The tenderer should have supplied and commissioned same capacity (or) above of DG Set and Transformer and Accessories, for which tender called for, and enclose copies of purchase order / supply order within a period of 5 years.
- 5.4. The performance certificate for above such supply for which Purchase Order / Supply order furnished as per 5.3 from the reputed purchaser shall be enclosed in the technical bid part I. The performance certificate received from purchaser / client should be of within a period of 3 years.
- 5.5. The Tenderer should have minimum experience of 5 Years in the manufacturing and supplying of DG Set and Transformer and Accessories. Copies of Registration of firms with list of activities/GST registration certificate etc. should be enclosed as supporting document
- 5.6. If the tenderer is an authorized dealer / supplier of original equipment manufacturer (OEM), the tenderer shall furnish the authorization letter from the original equipment manufacturer (OEM) for supply of DG Set and Transformer and Accessories.
- 5.7. If the tenderer is an authorized dealer / supplier for DG Set and Transformer and Accessories, then the experience of the manufacturer for supply of DG Set and Transformer and Accessories, their performance shall be taken for evaluation of technical bids, even if the supply has been made either by the manufacturer directly or through other agencies.
- 5.8. The tenderer who are downloading the document from the web site are instructed to check the web site for corrigendum after the date

of pre-bid meeting, for any amendments (pre-bid – minutes) (if any issued) They are instructed to down load the above amendments and enclose it along with the technical bid document duly authenticating while submitting without fail. Failure to submit the pre-bid minutes will lead to rejection of the tender offer.

5.9. FINANCIAL: The tenderer shall have average annual sales turn-over for the last three financial years (2018-19, 2019-20 & 2020-21) equal to the tender estimated value and minimum annual sales turn-over in each of the last three financial years (2018-19, 2019-20 & 2020-21) shall not be less than 50% of the tender estimated value.

### **5.10. VALIDITY OF PRICE TENDER:**

- a). The tender offer shall be kept for acceptance for a period of 120 days from the date of opening of Part I Technical bid. The offers with lower validity period are liable for rejection.
- b). Further the tenderer shall agree to extend the validity of the bids without altering the substance and prices of their bid for further period, if any required by Federation (i.e) The Price Bid shall be valid for a period of at least 90 days (Ninety Days) from the date, notified for opening of Price Bid.

### 5.11. DEVIATION:

- a). The offers of the tenderers with deviations on technical / commercial terms of the tender will be rejected.
- b). No alternate offer will be accepted.
- 5.12. Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:
  - a). Made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
  - b). Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or
  - c). Participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the employer.

### Annexure – A STRUCTURE AND ORGANISATION

1	Name of the Applicant	:	
	Status	:	
	Individual contractor	:	
2	Sole Proprietary Firm	:	
_	Firm in Partnership	:	
	Private Limited Company	•	
	Public Limited Company	:	
3	Head Office/Registered office address with phone / Telex / Fax Number	:	
4	Contact Person Name Address Mobile No Email Address	:	
5	Regional Office address with Phone / Telex / Fax Number	:	
6	Local office (if any) address with Phone / Telex / Fax Number	:	
7	Field of activity of the Applicant as per deed of Partnership / Memorandum of Association / Articles of associates (Civil) Engineering Contractor / General Engineering Contractor / Electrical Items - Engineering Contractor etc, should be specified.)	:	
8	Country and year of incorporation	:	
9	Main line of Business	:	
10	Name, position, status, capacity etc, of the Key personnel/ directors of the company (Attach organization chart showing the structure of the company / firm)	:	
11	Name, capacity and address of the signatory who has Signed the Qualification Application. Attested copy of authorization issued (either by power of attorney or as per articles of Partnership Deed / Memorandum of Association) in favour of the signatory to sign the qualification Application price Tender/ Agreement should be appended.	:	

SIGNATURE OF THE TENDERER WITH SEAL

### Annexure - B FINANCIAL CAPABILITY (Please Annex self attested copies)

1	Name and address of the Applicant	:		1	
2	Income Tax Permanent Account No. C.I. H. No.				
3	GST Registration No.				
	Annual turn over as per audited statement of	:	TAX Year	Figures	Words
	account duly certified by the Chartered Accountant	:	2018-19		
4	during the preceding Three years (Attach attested copy	:	2019-20		
	of balance sheets)	:	2020-21		
	Financial Position	:			
	I. Cash in hand	:			
	II. Cash in Bank	:			
5	III. Current Assets	:			
	IV. Current Liabilities	:			
	V. Working Capital	:			
	VI. Net worth	:			
6	Outstanding value of works already committed and in progress and time left for completion. (Details for each work to be furnished separately)	:			
	Amount available in capital Account	:			
7	I. Paid up share capital of (Partners or Share holders)  II. Called up and subscribed	:			
	share capital III. Reserves under capital account	:			
	IV. Surplus under capital account	:			

SIGNATURE OF THE TENDERER WITH SEAL

	Net profit before tax during the proceeding three years	:	TAX Year	Figures	Words
8		:	2018-19		
		:	2019-20		
		:	2020-21		
	Applicant's financial arrangements.	:			
9	(a) Own resources	:			
	(b) Bank credits/ Over Draft	:			
	(c) Other source (Specify the source)	:			

SIGNATURE OF THE TENDERER WITH SEAL

### Annexure - C

# INFORMATION REGARDING CURRENT LITIGATION / DEBARRING / EXPELLING OF APPLICANT OR ABANDONMENT OF WORK BY THE APPLICANT

1. (a) Is the Applicant currently involved in any Arbitration / litigation relating to any contract works

Yes/No

- (b) If Yes, Details thereon
- 2. (a) Has the Applicant or any of it's constituent partners been Debarred/Expelled by any agency during the last Three years

Yes/No

- (b) If yes, Details thereon
- 3. (a) Has the Applicant or any of it's constituent Partners
  failed to complete, any contract work during the past
  Three years.Yes/No

(b) If yes, give details thereon

### **Dated Signature of Applicant with seal**

**Note:** It any information in this Annexure is found to be incorrect or concealed, the Qualification Application will be summarily rejected & price tender will not be opened.

### Annexure - D AFFIDAVIT

### (To be furnished in a Twenty Rupees Non-Judicial Stamp Paper duly Certified by Notary Public)

- 1). I/We the undersigned solemnly declare that all the statements made in the documents, records etc., attached with this application are true and correct to the best of my/our knowledge.
- 2). I/We the undersigned do hereby certify that neither my/our firm/company nor any of it's constituent partners have abandoned any work/works of similar nature and magnitude in India, during the Last Three years.
- 3). I/We the undersigned do hereby certify that any of the contracts awarded to me/us has not been terminated rescinded, due to breach of contract on my/our part, during the last Three Years.
- 4). I/We the undersigned authorize (s) and request any bank / person / firm / corporation / Government Departments to furnish pertinent information deemed necessary and requested by The Dy. General Manager (Engg.), TCMPF Ltd., Head Office, Aavin Illam, 3-A, Pasumpon Muthuramalinganar Salai, Nandanam, Chennai 600 035 to verify the statement made by me/us or to assess my/our competence and general reputation.
- 5). I/We the undersigned, understand(s) that further qualifying information / clarifications on the statement made by me / us may be requested by The Dy. General Manager (Engg.), TCMPF Ltd., Head Office, Aavin Illam, 3-A, Pasumpon Muthuramalinganar Salai, Nandanam, Chennai 600 035. and agree(s) to furnish such information/ clarification within SEVEN Days from the date of receipt of such request from The Dy. General Manager (Engg.), Aavin Illam, Head Office, 3-A, Pasumpon Muthuramalinganar Salai, Nandanam, Chennai 600 035.

### **Dated Signature of Applicant with Seal:**

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

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

(Title of the Officer)
(Title of the firm/Company)
(Date)

(Signature of the Notary Public)

### **Annexure - E**

### SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CREDIT FACILITIES

### **BANK CERTIFICATE**

This is to certify that M/s	is a reputed company with
a good financial standing.	
If the contract for the work, nam	ely, is awarded to
the above firm, we shall be able to pro-	vide overdraft/credit facilities to the extent
of Rs to meet their working	g capital requirements for executing the
above contract.	
Sig	nature of Senior Bank Manager
Na	me of the senior Bank Manager
	Address of the Bank

Stamp of the Bank

Note: Certificate should be on the letter head of the bank.

### 6.0 EVALUATION AND COMPARISON OF THE TENDER OFFERS

- 6.1. The tenders will be evaluated strictly as per the Tamilnadu Transparency in Tenders Act 1998 and the Tamilnadu Transparency in Tenders Rules 2000 and amendments made thereon in the Act & Rules by the Government.
- 6.2. The tender offers received will be examined to determine whether they are in complete shape, all required data's have been furnished, properly signed and generally in order and confirms to all the terms and conditions of the specification without any deviation.
- 6.3. For the purpose of evaluation of tender offers, the following factors will be taken into account for arriving the evaluation price.
  - a). The quoted price will be corrected to arithmetical errors.
  - b). In case of discrepancy between the price quoted in words and figures, lower of the two shall be considered.
  - c). The evaluation of offer will be computed by taking into account Design, Supply, Erection, Installation, Testing and Commissioning put together.
- 6.4 Bidders should quote their rates both in figures and in words for each item per unit and amount for each item of work for full quantity. Grand total of the whole contract should be furnished without fail in the Price Quote Schedule of Price Bid.
- 6.5 The bidder shall fill in rates and prices and line item total (both in figures and words) for all the items of the works described along with total bid price (both in figures and words). Items for which no rate or price is entered by the bidder will not be paid for by the purchaser when executed.
- 6.6 The evaluation for L1 shall be on total end price of all items.

### 7.0.TECHNICAL SPECIFICATION FOR SUPPLY, ERECTION AND COMMISSIONING OF 1010 KVA DIESEL GENERATING SET

### **PART- A- SUPPLY**

### 1.0. FUNCTIONAL REQUIREMENT

### 1.1. GENERAL DESCRIPTION:

1.1.1. The diesel engine would be used to generate three-phase AC electricity at around 415 Volts and 50 Hz. The generating set would be used in the plant to operate electrical equipment in case there is failure of the main source.

### 1.2. CAPACITY: 1010 KVA

### 2.0. DESIGN REQUIREMENTS

- 2.1.The diesel generator should be water-cooled, vertical type, SILENT Diesel Generating Set capable of developing 808 KW / 1010 KVA with CPCB approved acoustic enclosure comprising of Radiator Cooled, Diesel engine developing 1180 BHP at 1500 RPM, complete with standard accessories, coupled to Alternator rated at 808 KW / 1010 KVA at 415 Volts, mounted on Channel Iron Base Frame complete with Fuel Tank of 990 Litres capacity with Standard Manual Control Panel and Batteries.
- 2.2.The engine should be built to IS 4722 BS 5000, IEC 34/1, ISO 8528, BSS 5514, and ISO 3046 specifications and rated for continuous running of 24 hours with an overload capacity of 10% for a period of not exceeding 10 minutes of testing purpose.
- 2.3. The diesel Genset shall be provided with an integral acoustic enclosure.
- 2.4. The diesel generator should comply with noise limit of 75 db (A) at 1 Mtr.
- 2.5. The supplier should furnish a copy of type test certificate for the Genset.
- 2.6. The diesel Genset should be complete with the following:
  - a) Flywheel with housing to suit single and double bearing alternator.
  - b) Full flow paper element filters for Fuel, Lube oil, and bypass.
  - c) Dry type replaceable paper element air cleaner with restriction indicator.
  - d) Plate type Lubricating oil cooler.
  - e) Turbo charger, pulse tuned exhaust manifold stainless steel exhaust manifold connections and after coolers.
  - f) Engine RPM indicator.
  - g) Engine air-cooling system with cooling fan, radiator system and coolant inhibitor.

- h) Anti vibration mountings.
- i) Standard fuel tank with level indicator
- j) Flexible coupling for double ball bearing alternator.
- k) Electric Starting motor with Battery and alternator for charging.
- I) Holding bolts for combination base plate.
- m) Microprocessor based Genset controller with following features.
  - i. Digital Governing.
  - ii. Digital voltage regulation.
  - iii. Protection for alternator O/C.
  - iv. Analog / Digital Bar graph AC output metering.
  - v. Battery monitoring system. To sense and warn against the weak battery condition.
  - vi. Digital alarm and status message display.
  - vii. Generator monitoring system to display the status of all the Engine critical and Generator functions.
  - viii. Smart starting control system. Integrated fuel ramping to limit black smoke and frequency overshoot.
  - ix. Advance serviceability.
- n) Operational Performance: Minimum 3.5 Units / Litre of fuel at 80% load.
- o) Safety device for all critical components.

### 3.0 Alternator:

The engine shall be coupled to one suitable self-excited, self regulated brushless alternator developing 808 KW / 1010 KVA at 0.8 power factor, 3 phase, 50 cycles/second, 415 Volts AC power supply under NTP conditions when running at 1500 RPM. The alternator should be screen protected and fitted with end shield and ball / roller bearings. The windings should be of Class H insulation.

### 4.0 Base Frame:

Channel base frame, common for Engine & Alternator. The base frame shall have provision for mounting of acoustic enclosure & control panel on it. The base frame should be sturdy and shall have provision of lifting hook for convenient lifting of complete set i.e. along with canopy, engine, and alternator.

### 5.0 Make:

Engine: Cummins/Caterpillar/ Kirloskar/Greaves

Alternator: Stamford/Kirloskar/Jhoti

#### 6.0 Acoustic enclosure:

•	•	Accountic chiclosul ci						
	a.	Dismantle	5 sided					
		type						
	b.	Wall	100 mm					
		thickness						
	c.	Outer sheet	MS 16 SWG CRCA					

d.	inner sheet	GI perforated 24 SWG with 3 mm holes		
e.	insulation	Mineral / Rock wool with density - 64 kg/m3 inside		
		partitions shall be insulated 50 mm thick		
f.	Doors	Double door shall be provided to have access during removal and maintenance of DG machine. The doors shall be provided with hinges & see-through glass, 90-degree openable type.		
g.	Ventilation	Adequate ventilation shall be provided to meet air requirement for combustion and heat removal if required blower(S) may also be provided.		

- a) The canopy design & dimensions shall be of CPCB approved type.
- b) The canopy shall be suitable for outdoor application.
- c) The noise level shall not be more than 75 DB at a distance of 1 Mtr form the canopy in free field condition,
- d) Type approval certificate and COP certificate (if applicable ) from certification agencies mentioned in the MOEF notification No.371 (E) dt:17.05.02 as amended and applicable at the time of supply shall be provided along with the supply.

### 7.0.Control Panel:

Control panel shall be mounted either inside or outside the container / canopy. The enclosure shall have a see - through window for viewing the control panel if inside the canopy and a lockable access door suitable for 415 Volts; 3 phase; 4 wire; 50 Hz AC supply. Interconnecting of alternator and control panel with suitable size bus bars made of Aluminium with suitable incoming and outgoing terminations. Control panel should have Audio/visual & alarm annunciation window type for lube oil pressure/high water temperature/over speed/earth leakage etc. and Push buttons for start, stop, Accept, reset & Emergency stop switches. Electrical battery charging device to be provided in the control panel.

### 8.0. Control Panel Board:

The panel board should be powder coated, manufactured in 14/16 SWG CRCA sheet steel and consist of the following.

- a) ACB 2000 Amps 4 poles with microprocessor-based OC, SC & EF Release
- b) Voltmeter and Ammeter with selector switch.
- c) Frequency meter (Digital type)
- d) KW and PF meter.
- e) KWh meter.
- f) Indicating lamp for Load ON and set running.
- g) Current transformers of suitable ratio.
- h) Earth fault relay with tripping arrangements.
- i) Instrument fuses for all the instruments, control wiring duly wired and ferruled.

- j) ACB trip, Accept, Reset & Emergency stop functions.
- k) Overload tripping device (Adjustable from 50% to maximum 80% of full load current) to trip ACB
- 9.0. The panel shall be complete with all internal wiring with final coat of rust proof paint and with arrangement for receiving incoming and outgoing bus bars.
- 10.0.The base foundation details and relevant drawing shall be furnished along with the offer
- 11.0.Uncharged Batteries with connecting leads and terminals with Guarantee card to be supplied.
- 12.0. <u>Battery charger (IGBT / SMPS controlled)</u>; Type- SMPS/IGBT based Volt automatic float cum Boost battery charger with the following.
  - 1. DC Voltmeter (0 100 Volt DC)
  - 2. DC Ammeter (0 40 AMPS DC)
  - 3. Selector switch (Rotary type)

Auto Manual

Float / Boost

- 13.0. Supply and laying of weather-proof bus duct with suitable size bus bars from alternator to control panel, control panel to synchronising panel and from synchronising panel to new MV panel (Including Flexibles).
- 14.0.Preparation of Electrical drawing incorporating the Genset, busducts and change-over arrangements and obtaining approval from CEIG.
- 15.0.Obtaining safety certificate from CEIG for the Genset, control panel and synchronising panel.

### **PART - B ERECTION**

### 1.0.Scope of Work:

- 1. Unpacking, shifting, positioning of diesel genset with integral enclosure on foundation with AVMs, erection of control panel and fixing of diesel tank.
- 2. Supply and fixing of suitable size MS exhaust pipe of C class with all fittings, insulation, necessary cladding, and necessary supports for the required length of 10 meters with prober support should be provided.
- 3. Supply and fixing of suitable size Hospital / Residential silencer, thermal insulation with mineral wool, Cladding with Aluminium sheet.
- 4. Initial filling and charging of batteries including transportation.

- 5. Supply and providing wooden base battery stand
- 6. Providing Ashlock Earthing 5 nos., Two for the Generator neutral, Two for body, and one for control panel. Necessary compound earth work, brick work and RCC slab cover are in the scope of supply. All the earth pits are to be interlinked. Earth connections from earth pit to generator neutral, body of the generator, control panel and interlinking both the body earth pits are to be carried out with suitable size copper earth flats. Supply of copper flat is in the scope. The approximate distance may be taken as 120 meters.
- 7. Erection, Commissioning, and testing of the Generator set with full load and 10% overload for 10 minutes.
- 8. First fill of Diesel (tank full) and oil for commissioning is in the scope of the equipment supplier.
- 9. Preparation of Electrical drawing for the submission of approval from CEIG and getting approval of drawing and safety certificate from the CEIG is in the scope of the supplier (including the synchronising panel to new MV panel).
- 10. Any other works including materials for supply, erection, and commissioning of 1010 kVA Genset will be borne by the tenderer.
- 11. Supply, installation, testing and commissioning of synchronising panel incoming 2000 Amps 4 pole EDO ACB 2nos.and 3200A Bus Coupler-1No.,outgoing 3200 Amp EDO ACB 1 no., with Accessories and it should be connecting with existing 1010 kVA control panel and also it should be connected with new M.V panel.
- 12. The synchronising panel shall have AMF (Auto Mains Failure) Facility. In the event of a mains power failure and after a pre-set time delay, it should start the first DG Set automatically, after checking for all the safety parameters & interlocks. After the DG Set has started and developed voltage, its incoming ACB in the Synchronising Panel should close automatically. When the load on the first DG set crosses 80% of its capacity, the second DG set should start automatically and shall synchronise with the first DG set through the synchronising panel. All the necessary pre-requisite conditions for synchronising the two DG sets shall be checked & confirmed automatically. After synchronisation, both the DG sets shall share the load equally. As and when the load on the DG sets reduces to less than 80% of the individual capacity of the DG Set, one of the DG sets should stop & isolate itself from

synchronisation. There shall be facility for selecting any one of the two DG sets as the first DG set and vice versa. Upon mains supply resumption and after a pre-set time delay, loads shall be shifted to mains ACBs, and the DG set(s) shall stop. All the above activities shall happen automatically with all necessary interlocks. There shall be a manual override facility for all the automatic functions described above (viz.) DG Start, DG Synchronisation, DG Stop, Mains Resumption, etc.

- 13. Supply and laying of cubical type outdoor Bus duct 2000 Amps TPN aluminium bus bar for RYB phase and neutral. Boxes are fabricated with 16 SWG CR sheet with bus bar supported by CMC materials with earthing arrangements from 1010 kVA Genset to synchronising panel distance (30 mtrs. approximate) and synchronising panel to M.V. Panel. (3200 Amps TPN Aluminium Bus bar duct distance 15 mtrs) Busduct Alteration works from Existing DG to MV Panel to be shifted to new Synchronising Panel after energisation of new DG.
- 14. Supply and making end connection for suitable size control cables in copper armed cable with suitable size compression cable gland and jockets.

### 2.0.Manual and Training:

- Operation maintenance spare parts manual and programme adjustable (For adjusting restricted parameters at site during operation) manuals of the machines must be supplied.
- 2. The contractor should demonstrate proper functions of all mechanical & electrical controls, safeties, protective devices, and programmed parameter adjustment to our staffs with records.

### 3.0.Battery Limits

- 1. All the civil works related to the basement of the Genset will be carried out by the Salem Dairy.
- 2. The detailed drawings to be given by the supplier.

#### Note:

The bidder shall visit and inspect the site before quoting the tender

# 8.0.TECHNICAL SPECIFICATION FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories

### 1. Functional Requirement:

The work consists of supply and installation of the following equipments and works for HT substation to transform 22 KV HT voltage to 433 Volt for distribution to various sections to operate LT electrical equipments.

- (i) Three panel outdoor VCB switch Board 22 KV, 1 No 800 A, 26.3 KV/ 3 Sec
- (ii) Outdoor oil cooled Transformer 22 KV/ 433V, 2 Nos 1600 KVA
- (iii) MV panel 415 V 1 No
- (iv) APFC panel with capacitors and reactors 2 Nos 415 V, 500 KVAR
- (v) Cables and other accessories
- (vi) Supply and fixing of safety items
- (vii) Statutory Works

### 2. Technical Specification:

SI.No	DESCRIPTION OF WORK	QTY	иом
1	Three panel outdoor VCB switch Board 22 KV, 800 A, 26.3 KV/ 3 Sec		
	1 No. of 22KV, 800A 26.3KA/3 sec.3 Panel Outdoor VCB Switchboard	1	Set
	SITC of 1 No. of 22KV,800A, 26.3KA/3 sec., Outdoor, Metal-clad, 3 Panel VCB Switchboard of robust construction, Vermin and Dust proof, factory assembled, made of 2mm thick Sheet Steel, Powder-coated, having individual compartments. The enclosure shall be of IP5X Protection. The Panel shall have a detachable common canopy and a common base frame. All necessary accessories such as lifting lugs, earth flats, earthing studs, cable entry gland plates at the bottom, shall be provided in adequate numbers. Each compartment is to have a separate door & shall comprise the following:		
	(i). Incomer-1No., Comprising of:		

Sl.No	DESCRIPTION OF WORK	QTY	UOM
	a) 1No. of 22KV, 50Hz., 800Amps, 26.3KA/3 sec., Horizontal Isolation & Horizontal Draw-out Type, Three pole, Vacuum Circuit breaker, with manual/230V AC Motor Operated Stored Energy Spring Charged Operating Mechanism, 110V DC Closing Coil, 110V DC Shunt Trip Coil, 110V DC Anti-pumping Module, 6 N.O. + 6 N.C. Auxiliary Contacts, Mechanical ON/OFF/SPRING CHARGED/DISCHARGED Indications, Mechanical ON/OFF Push Buttons, Mechanical Operations Counter, etc.		
	b) 3 Nos. of Dry Type, Indoor, Resin Cast Potential Transformers of Ratio: $22KV/\sqrt{3}$ / $110 V/\sqrt{3}$ / $110 V/\sqrt{3}$ , Sec.1: Class 0.5 accuracy and 100 V Aburden per phase & Sec.2: Class 3P and 30 V Aburden per Phase		
	c) 3 Nos. of Indoor Cast Resin Current Transformers of Ratio:100-50/5-5A; Core 1: Class 0.5/5VA & Core 2: Class 5P10/5VA.		
	d) 1 No. of 96mm x 96mm Digital Ammeter with class 0.5 accuracy and within-built selector switch.		
	e) 1 No. of 96mm x 96mm Digital Voltmeter with class 0.5 accuracy and within-built selector switch.		
	f)1 No. of Digital Demand controller of Class 0.5 Accuracy, with RS 485 Port for MODBUS-RTU Communication Protocol		
	g) 1No.of Microprocessor based numerical relay with O/C, E/F and S/C Protection		
	h) 1No. of Microprocessor based numerical relay with UV & OV Protection.		
	i) 1 set of RYB Phase indication lamps.		
	j) 1 set of Indicating lamps to indicate OPEN, CLOSE, TRIP, SPRING CHARGED, TRIP CIRCUIT HEALTHY.		
	k) 1 No. of Test terminal block for metering CT.		
	l) 1 No. Trip/Neutral/close switch, Spring Return to Neutral		
	m) 1 No. of 25mm x 5 mm Copper bus bar for earthing.		
	n) 1 No. of Master Trip Relay		
	o) 1 No. Trip Circuit Supervision Relay		
	p) 1 No. Electronic Power Pack 110V AC/110V DC, 100W		
	q) 3 Nos. of Indoor Polymeric, Metal Oxide Surge Arrestor 20KV, 10KA, Class 2		
	r)1 No. Rear Bottom Entry Power Cable Chamber, suitable for heat shrinkable indoor end termination of 1R $\times$ 3c $\times$ 240 sq. mm, 22 KV(E) XLPE Al. Ar. Cable, with suitable drilled gland plates.		
	(ii). Outgoing- 2 Nos. Comprising of:		

SI.No	DESCRIPTION OF WORK	QTY	UOM
	a) 2 No. of 22KV, 50Hz., 800 Amps, 26.3KA/3 sec.,	•	
	Horizontal Isolation & Horizontal Draw-out Type, Three		
	pole, Vacuum Circuit breaker, with manual/230V AC Motor		
	Operated Stored Energy Spring Charged Operating		
	Mechanism, 110V DC Closing Coil, 110V DC Shunt Trip		
	Coil, 110V DC Anti-pumping Module, 6 N.O. + 6 N.C.		
	Auxiliary Contacts, Mechanical ON/OFF/SPRING CHARGED/DISCHARGED Indications, Mechanical ON/OFF		
	Push Buttons, Mechanical Operations Counter, etc.		
	b)6 Nos. of Indoor Cast Resin Current Transformers of		
	Ratio: 50/5-5A; Core 1: Class 0.5/5VA & Core 2: Class		
	5P10/5VA.		
	c) 2 No. of 96mm x 96mm Digital Ammeter with class 1.0		
	accuracy and with in-built selector switch.		
	d) 2 No. Digital Multifunction Meter of Class 0.5 Accuracy,		
	with RS 485 Port for MODBUS-RTU Communication		
	Protocol		
	e) 2 No. Microprocessor based numerical relay with O/C,		
	E/F and S/C protection.		
	f) 2 set of Indicating lamps to indicate OPEN, CLOSE,		
	TRIP, SPRING CHARGED, TRIP CIRCUIT HEALTHY.		
	g) 2 set of 800 Amps Three Phase Aluminum bus bar with		
	PVC Insulation Sleeves - 1set.		
	h) 2 No. of Test terminal block for metering CT.		
	i) 2 No. Trip/Neutral/close switch, Spring Return to Neutral		
	j) 2 No. of 25mm x 5 mm Copper bus bar for earthing.		
	k)2 No. of Master Trip Relay		
	I) 2 No. Trip Circuit Supervision Relay		
	m) 6 Nos. of 3 element Transformer Fault Alarm/Trip Aux.		
	Relays (Buch Holz Alarm, Buch Holz Trip, OTI Alarm, OTI		
	Trip, WTI Alarm, WTI Trip, MOG Alarm, OSR Trip, PRV Trip.		
	n) 2 No. of microprocessor based 12 Window Alarm		
	Annunciator with in-built Push Buttons for Alarm Accept/		
	Reset & with suitable Buzzer/Bell.		
	o) 2 No. Electronic Power Pack 110V AC/110V DC, 100W		
	p) 6 Nos. of Indoor Polymeric, Metal Oxide Surge Arrestor		
	20KV, 10KA, Class 2		
	q) 2 No. of Rear Bottom Entry Power Cable Chamber,		
	suitable for heat shrinkable indoor end termination of 1R x		
	3c x 185sq. mm, 22 KV(E) XLPE Al. Ar. Cable, with		
	suitable drilled gland plates.  All other standard accessories and indication mounting.		
2	Outdoor oil cooled Transformer 22 KV/433V, 1600 KVA		

SI.No	DESCRIPTION OF WORK	QTY	UOM
	Supply, installation and commissioning outdoor, oil cooled, Transformer of 1600KVA, 22KV/433V, 3Phase, 50Hz., Copper, double wound, with OLTC/RTCC/AVR (as per IS1180-LEVEL 3), installation on suitable masonry / concrete pedestal/Control cables &end termination (Two Transformers in Parallel Operation)	2	Sets
	a) PrimarySide:22 KV		
	b) SecondarySide:433 V		
	c) Primary side cable box to terminate 1R x 3 core, 240 sq.mm, Sq.mm, 22 KV XLPE Armored Aluminum cable Indoor end termination, with heat shrinkable cable jointing kit		
	d)Secondary side Cable box suitable for 3200A, Al. Busduct, 3 phase, 4wire		
	e)OLTC tap switch+17.5%to-10 % in 2.5% steps with RTCC Panel & AVR		
	f) Vector Group Dyn11		
	g) Cooling: Oil Cooled		
	h) Copper wound Transformer with primary DELTA and Secondary STAR.		
	i) Rating and diagram plate		
	j) Earthing terminals		
	k) Lifting lugs		
	I) Thermometer Pocket		
	m) Air release hole with plug		
	n) Oil filling hole with plug on conservator		
	o) Plain oil level indicator on oneside of the conservator with minimum oil level marking		
	p) Dehydrating silica gel breather		
	q) Drain cum bottom filter valve with plug.		
	r) Top Filter valve with plug		
	s) Base channel switch rollers		
	t) Explosion vent with diaphragm		
	u) First filling of EHV grade transformer oil		
	v) Cooling Radiators w) Oil temperature indicator with Alarm & Trip conduct.		
	x) Winding temperature with Alarm & Trip conduct.		
	y) Double float Buchholz relay with shut off valves		
	z) 2 No. Cast Resin Neutral CT on the LV Side Neutral Bushing 3000/5A, Cl. 5P10, 15VA		
3	MV Panel 415 V		

SI.No	DESCRIPTION OF WORK	QTY	UOM
(a)	L.T. Bus Duct		
	Design, manufacture, supply, erection, testing and commissioning of floor mounting type, Indoor, Main MV panel, made out of 14/16 SWG CRCA sheet steel enclosure with Aluminum busbar arrangement, Cable chamber, earthing and powder coat painting, with the following incoming and outgoing switchgear, as below:		
(b)	Supply, erection, testing and commissioning of L.T. Bus Duct:		
	Supply, erection, testing and commissioning of sandwich type 3200A, capacity Bus duct from transformer 1 & 2 to new MV panel indoor / outdoor type main incomer with aluminum bus bar, end with joint plate and suitable earthing bar etc,. Fabrication including two nos of 25X3mm copper earthing contactor throughout the length of the busduct (face sequence should be matched with the incoming breaker provided at transformer and MV panel) a) Aluminum 90° Bend (As per site condition) b). Aluminum flexible bar with enclose (As per site condition 4.5 m per joint)	45	Mtrs
(c)	EB Incomer - 1 & 2, each comprising of:		
	Single phase preventer provision shall be made for all ACB's		
	<b>2Nos.</b> 433V, 3200A, 50 KA, Four Pole EDO ACB with Microprocessor based O/C, S/C, E/F Protection Release - 1No.		
	6 Nos. Cast Resin CTs - 3000/5A Cl. 0,5, 5VA CT		
	2 Nos. Class 0.5 Digital Multifunction Meter with RS 485 communication port		
	ON, OFF Indication lamp – 2 Sets		
	R,Y,B Indication lamp – 2 Sets		
	Back-up Earth fault relay – 2 Nos.		
	110V DC Shunt Trip Coil - 2 Nos.		
(d)	Bus coupler – 1 No., comprising of:		
	1 No. 433 V, 4000 A, 50 KA, Four Pole EDO ACB with Microprocessor based O/C, S/C, E/F Protection Release - 1 No.		
	ON, OFF Indication lamp – 1 Set		
(e)	Suitable for mechanical and electrical inter locks to be provided with 3 locks and one key system.		
	DG Incomer – 1 No, comprising of:		
	1 No. 433 V, 3200 A, 50 KA, Four Pole EDO ACB with Microprocessor based O/C, S/C, E/F Protection Release - 1 No.		
	3 Nos. Cast Resin CTs - 3000/5A Cl. 0,5, 5VA CT		
		l	<u>I</u>

Sl.No	DESCRIPTION OF WORK	QTY	UOM
	1 No. Class 0.5 Digital Multifunction Meter with RS 485 communication port, ON, OFF Indication lamp – 1 Set		
	R,Y,B Indication lamp – 1 Set	ı	
(f)	BUSBAR:		
	<b>4500A</b> TPN Aluminium Busbar (Current Density: 0.8A / Sq.mm)		
(g)	Outgoings:		
	2 Nos. of 433V, 2500A, 50KA, TPN, EDO ACB with Microprocessor based O/C, S/C, E/F Protection Release, comprising of: 3 Nos. Cast Resin CTs - 2500/5A, Cl. 0.5/5VA CTs, 1 No. Class 0.5 Digital Multifunction Meter with RS 485 communication port, ON, OFF Indication lamp – 1 Set; R,Y,B Indication lamp – 1 Set		
	2 Nos. of 433 V, 1600 A, 50 KA, TPN, EDO ACB with Microprocessor based O/C, S/C, E/F Protection Release, comprising of: 3 Nos. Cast Resin CTs - 1500/5A, Cl. 0.5/5VA CTs, 1 No. Class 0.5 Digital Multifunction Meter with RS 485 communication port, ON, OFF Indication lamp – 1 Set; R,Y,B Indication lamp – 1 Set		
	2 Nos. of 433 V, 1250 A, 50 KA, TPN, EDO ACB with Microprocessor based O/C, S/C, E/F Protection Release, comprising of: 3 Nos. Cast Resin CTs - 1000/5A, Cl. 0.5/5VA CTs, 1 No. Class 0.5 Digital Multifunction Meter with RS 485 communication port, ON, OFF Indication lamp – 1 Set; R,Y,B Indication lamp – 1 Set		
	1 No. of 433 V, 1000 A, 50 KA, TPN, EDO ACB with Microprocessor based O/C, S/C, E/F Protection Release, comprising of: 3 Nos. Cast Resin CTs - 1000/5A, Cl. 0.5/5VA CTs, 1 No. Class 0.5 Digital Multifunction Meter with RS 485 communication port, ON, OFF Indication lamp – 1 Set; R,Y,B Indication lamp – 1 Set		
	2 Nos. of 433V, 630A, 36 KA, TPN MCCB, with Microprocessor based O/C, S/C, E/F Protection Release, with ROM, comprising of: 3 Nos. Cast Resin CTs - 600/5A, Cl. 0.5/5VA CTs, 1 No. Class 0.5 Digital Multifunction Meter with RS 485 communication port, ON, OFF Indication lamp – 1 Set; R,Y,B Indication lamp – 1 Set		
	2 Nos. of 433V, 250 A, 25 KA, TPN MCCB, with Microprocessor based O/C, S/C, E/F Protection Release, with ROM, comprising of: 3 Nos. Cast Resin CTs - 100/5A, Cl. 0.5/5VA CTs, 1 No. Class 0.5 Digital Multifunction Meter with RS 485 communication port, ON, OFF Indication lamp – 1 Set; R,Y,B Indication lamp – 1 Set		
	Suitable interlock for all incoming, bus coupler and outgoings.	1	Set

SI.No	DESCRIPTION OF WORK	QTY	UOM
	The incoming and outgoing feeder parameters such as voltage current, power, power factor, etc,. Are to be connected with existing SCADA for continuous monitoring and control. The software should provide digital bar,		
	graphical display for present and stored data. Software that allows these data to be analyzed on PC shall be provided.		
4	APFC panel with capacitors and reactors 415V, 500KVAR		
(a)	500 KVAR APFC Panel:	2	Sets
	Supply and erection of indoor type, floor mounting, compartmental type 500KVAR ,APFC Panel board, with appropriate series reactor and made out of 14/16SWG CRCA sheet steel, duly applied with Siemens retexture powder coating and comprising as follows:		
	Incomer:		
	1 No. of 433 V, 1250 A, 50 KA, TPN, EDO ACB with Microprocessor based O/C, S/C, E/F Protection Release, comprising of: 3 Nos. Cast Resin CTs 1000/5A, Cl. 0.5/5VA CTs, 1 No. Digital type Ammeter with class 1.0 accuracy and with selector switch, 1 No. Digital type Voltmeter with class 1.0 accuracy and with selector switch, 1 No. Automatic Power Factor Controller 16 stage, 1 No. Class 0.5 Digital Multifunction Meter with RS 485 communication port, ON, OFF Indication lamp – 1 Set; R,Y,B Indication lamp – 1 Set		
	Busbar size:		
	<b>Phase :</b> 2R x 75 mm x 12mm Aluminium flat per phase		
	Neutral: 1R x75 mm x 12mm Aluminium flat		
	Earth: 50 mm x 6 mm Aluminium flat		
(b)	All the capacitors in the APFC panel shall be heavy duty low loss type		
	Outgoing:		
	5 KVAR Capacitor with 32Amps, TP, MCCB with ROM, spreader link and capacitor duty Contactor with 7% detuned reactor and necessary Power wiring and control wiring- 4 Sets.		
	10 KVAR Capacitor with 63 Amps, TP, MCCB with ROM, spreader link and capacitor duty contactor with 7% detuned reactor and necessary powder wiring and control wiring – 1 set.		
	20 KVAR Capacitor, 63Amps, TP, MCCB with ROM, spreader link and capacitor duty Contactor with 7% detuned reactor and necessary Power wiring and control wiring - 1 Set.		

Sl.No	DESCRIPTION OF WORK	QTY	UOM
	25 KVAR Capacitor, 100 Amps, TP, MCCB with ROM, spreader link and capacitor Duty Contactor with 7% detuned reactor and necessary Power wiring and control wiring – 2 Sets.		
	50 KVAR Capacitor, 200Amps, TP, MCCB with ROM, spreader link and capacitor duty Contactor with 7% detuned reactor and necessary Power wiring and control wiring – 4 Sets.		
	100 KVAR Capacitor, 400Amps, TP, MCCB with ROM, spreader link and capacitor duty Contactor with 7% detuned reactor and necessary Power wiring and control wiring- 2 Sets.		
5	Cables and other accessories:		
(a)	Supply, laying, testing & commissioning of 3c x 240sq. mm, 22KV(E) XLPEAI. Ar. cable	50	Mtrs
(b)	Supply, laying, testing & commissioning of 3c x 185sq. mm, 22KV(E) XLPEAI. Ar. Cable	50	Mtrs
(c)	Supply and providing Indoor/Outdoor end termination by using heat shrinkable cable termination kit for 3c x 240sq.mm 22KV(E) XLPE Al. Ar. cable with all accessories as required	2	Nos
(d)	Supply and providing Indoor/Outdoor end termination by using heat shrinkable cable termination kit for $3c \times 185$ sq.mm 22 KV(E) XLPE Al. Ar. cable with all accessories as required	4	Nos
(e)	Supply and laying of following sizes of 1.1 KV armored cable within the cable tray/ suitable clamping arrangements:		
	(i) 19 core x 2.5 Sq.mm XLPE Cu. Ar. Cable for OLTC	90	Mtrs
	(ii) 4 core 2.5 Sq.mm XLPE Cu. Ar. Cable	380	Mtrs
(f)	Supply and Making end termination for following sizes of Aluminium armored cable with suitable single compression cable gland and sockets and fixing accessories as required		
	(i) 3.5 core x 400 Sq.mm XLPE Al. Ar. Cable	12	Nos
	(ii) 3.5 core x 300 Sq.mm XLPE Al. Ar. Cable	4	Nos
	(iii) 19 core x 2.5 Sq.mm XLPE Cu. Ar. Cable	6	Nos
	(iv) 4 core x 2.5 Sq.mm XLPE Cu. Ar. Cable  Supply and erection of MS channel/ angles for	30	Nos
(g)	supporting cables. All fabricated items shall be painted with1coat primer + 1 coat of black / gray enamel paint over a coat as per request	2500	Kgs
(h)	Supply and providing of copper plate earth electrode of size $600 \times 600 \times 3.15$ mm at a depth of 3000 mm filled with salt, charcoal etc., construction of chamber, providing heavy duty concrete cast slab, painting &making etc., for the Neutral earthing of the	4	Sets

Sl.No	DESCRIPTION OF WORK	QTY	UOM
	transformer		
(i)	Supply and providing 40 mm dia, 3 mtr long maintenance free Earth Electrode with Bentonite powder etc., construction of chamber, providing heavy duty concrete cast slab, painting & making etc., for the body earth of the transformer & panel	16	Nos
(j)	Supply & laying of $50 \times 10$ mm Copper flat with necessary supports and fasteners etc. for Transformer Neutral earthing	100	Mtrs
(k)	Supply & laying of 25 x 3 mm Copper flat with necessary supports and fasteners etc. for Transformer / HT Panel/ LT Panel Body earthing	200	Mtrs
	(i) 50x6mm GI Flat-Hot Dipped	100	Mtrs
	(ii) 25x6mm GI Flat-Hot Dipped	100	Mtrs
	(iii) 25x3mm GI Flat-Hot Dipped	100	Mtrs
	(iv) No.10 SWG Copper Wire	100	Mtrs
	(v) No.8 SWG Copper Wire	150	Mtrs
(1)	Supply and laying of 3 runs of 3.5core x 400 sq.mm, 1.1KV grade, Aluminium armored XLPE UG cable from new MV panel to new processing block (1R-100 Mtrs)	300	Mtrs
(m)	Supply and laying of 1 run of 3.5core x 300 sq.mm, 1.1KV grade, Aluminium armored XLPE UG cable from new MV panel to new 500 KVAR APFC panel no.1	20	Mtrs
(n)	Supply and laying of 1 run of 3.5core x 300 sq.mm, 1.1KV grade, Aluminium armored XLPE UG cable from new MV panel to new 500 KVAR APFC panel no.2	20	Mtrs
(0)	Supply and laying of 3 runs of 3.5core x 400 sq.mm, 1.1KV grade, Aluminium armored XLPE UG cable from new MV panel to new 30 MT powder plant (1R-250 Mtrs)	750	Mtrs
(p)	Supply and laying of 2 runs of 3.5core x 400 sq.mm, 1.1KV grade, Aluminium armored XLPE UG cable from new MV panel to new Boiler plant (1R-150 Mtrs)	300	Mtrs
6	Supply and fixing of Safety items:		
(a)	3mm thick checkered rubber mat with ISI mark suitable for 440V installation as per IS15652:2006.	40	Nos
(b)	CO <sup>2</sup> Fire extinguisher - 4.5 kg.	6	Nos
(c)	St. John make first aid box as approved by Indian Red Cross Society, complete with all first aid medicines.	4	Nos
(d)	GI fire buckets with round bottom, each set comprising 3 Nos. fire buckets of 4.5kg. capacity, including supply of MS pedestal stand, with hooks suitable for holding of 3Nos. of fire buckets, painted with Post Office Red oil paint and letter FIRE on each bucket and filling with sand complete as required.	5	Sets
	(i) Hand gloves 440V grade.	2	Pairs
	(ii) 8" x 4" Danger board	40	Nos
	(iii) First Aid Chart with lamination	2	Nos

SI.No	DESCRIPTION OF WORK	QTY	UOM
	(iv) HT / LT cable route indicator made out of MS flat and angle iron	50	Nos
	(v) 22 KV Earth Discharge Rod	2	Sets
	(vi) Two Pole Structure Jumper Alteration Works	1	Lot
7	Statutory Works:	1	Lot
(a)	Preparation of drawings for getting approval from CEIG		
(b)	Arranging for Inspection and attending to defects reported and preparation of rectification report and obtaining Safety Certificate from CEIG for commissioning.		
(c)	Liaison with the Chief Electrical Inspector to Govt.of Tamilnadu &RTR issue of Safety certificate approval for energization.		

### **Preferred make:**

Transformer OLTC	Siemens/Voltech/Kirloskar/Schneider/ABB/Voltamp
Air circuit Breaker	ABB/Schinder/L&T/Siemens
HTVCB Panel	Siemens/Voltech/Kirloskar/Schneider/ABB/Voltamp
HTLT XLPE Power cable	Finolex/Poly Cab/ Havells
LT Sandwich Bus Duct	L&T/C&S/Siemens/Schinder
Capacitors (APFC Panel)	ABB/Siemens/Schinder/L&T



	:	SUPPLY, ERECTION AND COMMISSIONING OF
NAME OF ITEM /		(I)1010 KVA DIESEL GENERATING SET AND
WORK		ITS ACCESSORIES AND (II) 1600 KVA
		22KV/433V Outdoor Transformer - 2 Nos.,
		and Accessories FOR SALEM DCMPU LTD.,
TENDER REFERENCE NO	:	1111/Proj.4/2022, Dated:28.02.2022

## PART - II

### **COMMERCIAL BID**

THE TAMILNADU COOPERATIVE
MILK PRODUCERS' FEDERATION LTD
CHENNAI 600 035

### **QUALIFICATION**

The commercial offers of such of those tenderer who qualify themselves for being considered for Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories for Salem DCMPU Ltd., by fulfilling the entire terms and conditions as laid in Part I "Technical Bid" of this tender, will be considered for the finalization of the tender. Other commercial offers not qualifying as above will be rejected outright.

# Supply, Erection and Commissioning of (i)1010 KVA Diesel Generating Set and its accessories and (ii) 1600 KVA 22KV/433V Outdoor Transformer - 2 Nos., and Accessories for Salem DCMPU Ltd.,

## ABSTRACT PRICE QUOTE SCHEDULE

In Rupees

			Rupees	
S.N.	DESC		RATE	
Α	SUPPLY:			
1	Basic Price Itemise Break up details – to be function DG Set and Electrical Substation	rate enclosure for		
2	Packing Forwarding if any			
3	Transportation charges to site inc charges	luding loading and	unloading	
4	Transit insurance			
5	GST/IGST			
	Sub-Total (A)			
В	Installation, Testing and Commissioning	Material cost if any	Labour Cost	
1	Unpacking, shifting and positioning charges			
2	Installation, Testing and Commissioning charges			
3	GST/IGST			
	Sub Total (B)			
	TOTAL PRICE (A+B)			
	TOTAL PRICE IN WORDS			

SIGNATURE OF THE TENDERER WITH SEAL

# BREAK-UP DETAILS FOR ABSTRACT PRICE QUOTE SCHEDULE (i) DG Set

(In Rupees)

SI. No.	Item Description	Qty.	Unit	Basic Price	P&F	Transport charges	Transit insurance	GST/IGST	Unit Price	Total Price
1	1010 KVA Genset and its accessories									
2	Control Panel									
3	Battery Charger									
4	MS Exhaust Pipe Suitable Size									
5	Safety certificate obtaining from CEIG									
6	Synchronising panel with accessories									
7	MS channel and angle for panel, busduct support and stack									
8	Diesel (tank full)									
9	Bus Duct 2000 Amps as per Technical Specification									
10	Others if any (Please Specify)									
11	Total									

SIGNATURE OF THE TENDERER WITH SEAL

# BREAK-UP DETAILS FOR ABSTRACT PRICE QUOTE SCHEDULE (ii) Electrical Substation

(In Rupees)

SI. No.	Item Description	Qty.	Unit	Basic Price	P&F	Transport charges	Transit insurance	GST/IGST	Total Price
1	22KV, 800A 26.3KA/3 sec.3 Panel Outdoor VCB Switchboard	1	Set.						
2	Outdoor oil cooled Transformer 22 KV/433V, 1600 KVA	2	Set						
3	MV Panel 415 V	1	Lot.						
4	APFC panel with capacitors and reactors 415V, 500KVAR	2	Set						
5	Cables and other accessories	1	Lot.						
6	Supply and fixing of Safety items:	1	No.						
7	Statutory Works:								
8	Others if any (Please Specify								
9	Total								

SIGNATURE OF THE TENDERER WITH SEAL

#### Note:-

- 1). The rates should be quoted separately for equipment-wise with break-up of Basic Price, Packing & Forwarding, Transportation charges, Loading and unloading charges, Transit insurance, GST/IGST for supply, Unpacking, shifting and positioning charges, Erection & commissioning charges, GST/IGST for Erection & commissioning etc., which should be totaled and mentioned in the Abstract of Price Quote Schedule.
- 2). The tenderer shall furnish break up details for the above in a separate sheet for Price, GST/IGST, with the percentage.
- 3). All the rates should be only in terms of Indian Rupees.
- 4). Tenderer should indicate origin of country from which the equipment is imported and has to produce authorization letter from OEM.
- 5). Phrases like `Extra', `as applicable', `at the prevailing rate' etc. should not be quoted to avoid ambiguity.

Seal	of	the	firm
tenderer			

Signature of the

Witness:

1

2

Date: