### Tender Notice

Rc. No. 1322/2017 CM  
Date: 29.08.2018

For and on behalf of the Tamilnadu Co-operative Marketing Federation Ltd., (TANFED), Chennai-18, Sealed tenders are invited in two cover system by the Managing Director, from reputed firms and registered Contractors those who have got experience in similar type of work for executing the below mentioned work on Lump Sum Contract basis for Sl. No. I and TURN KEY Basis for S. No. II.

<table>
<thead>
<tr>
<th>SL. No</th>
<th>Name of Work</th>
<th>Period of Contract</th>
<th>EMD Amount</th>
<th>Cost of Tender Document(GST @ 12% included)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Remodeling and renovation of 3 x 320 MT capacity Onion Storage Godown including dismantling of existing onion storage bins and renovation of other infrastructures including Electrification, Water supply arrangements, Formation Internal Roads and construction of compound wall at E.Sithur Village, Vedasandhur Taluk, Dindigul District.</td>
<td>TWELVE MONTHS</td>
<td>RS.1,93,000/-</td>
<td>RS.16,800/-</td>
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<tr>
<td>2</td>
<td>Design, Engineering, Supply, Erection Testing and Commissioning of fertilizer Granulation Plant and machineries to manufacture NPK 17:17:17 complex at the rate of 100 MT Per Day as per the specifications and construction of Furnace and Chimney at E.Sithur village, Vedasandhur Taluk, Dindigul District.</td>
<td>FOUR MONTHS</td>
<td>RS.80,000/-</td>
<td>RS.16,800/-</td>
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</tbody>
</table>

Last date for receipt of tenders upto 2.00 PM on 20.09.2018, Date of opening of tenders at 3.00 PM on 20.09.2018, Date of availability of tenders documents 04.09.2018 to 19.09.2018, EMD to be remitted by means of Demand Draft in favor of The Managing Director, Tamilnadu Co-operative Marketing Federation Ltd., The tender documents can be downloaded from the web site [www.tanfed.tn.gov.in](http://www.tanfed.tn.gov.in). The cost of tender documents by way Demand draft shall be enclosed along with part ‘A’ of Tender document.

Managing Director
TENDER FOR DESIGN, ENGINEERING, SUPPLY, ERECTION TESTING AND COMMISSIONING OF FERTILIZER GRANULATION PLANT AND MACHINERIES TO MANUFACTURE NPK 17:17:17 COMPLEX AT THE RATE OF 100 MT PER DAY AS PER THE SPECIFICATIONS AND CONSTRUCTION OF FURNACE AND CHIMNEY AT E.SITHUR VILLAGE, VEDASANDHUR TALUK, DINDIGUL DISTRICT.

PART-A

Terms and conditions of contract
Due date : 20.09.2018 at 2.00 P.M.

NAME & ADDRESS OF CONTRACTOR:

M/S. ........................................

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Signature of CONTRACTOR
GENERAL TERMS AND CONDITIONS

1. Tenders in sealed covers (Two cover system) are invited on behalf of the Tamil Nadu Co-Operative Marketing Federation Limited (TANFED), Chennai by the Managing Director from bonafide experienced and reputed firms of financial stability for executing the works detailed below in nature and scope of work attached herewith in accordance with terms, conditions, specifications, etc. as detailed in the tender document.

   i. Design, Engineering, Supply, Erection Testing and Commissioning of fertilizer Granulation Plant and machineries to manufacture NPK 17:17:17 complex at the rate of 100 MT Per Day as per the specifications and construction of Furnace and Chimney at E.Sithur village, Vedasandhur Taluk, Dindigul District.

2. Tenders which should be in prescribed forms should be placed in sealed cover with the name of the work super scribed thereon and should be submitted to the Managing Director, TANFED, Chennai so as to reach him latest by 14.00 Hrs. on 20.09.2018. All the tenders will be opened by the Managing Director or his representative at the office of the Tamil Nadu Cooperative Marketing Federation Ltd., No. 91, St. Mary’s Road, Chennai-18 as aforesaid at 15.00 Hrs. on the same day i.e., 20.09.2018 in the presence of the tenderers or their representative who choose to be present at the time of opening.

3. Tenders not received in time will not be considered and will be summarily rejected. The tenderers are advised to be present personally or through authorized agent and drop the tenders into the tender box earmarked for the specific work.

4. The tenderer shall furnish the income Tax clearance certificate along with his tender.

5. The Tenderer must furnish a sum of Rs. 80,000/- (Rupees eighty Thousand only) as Earnest Money Deposit in the form of Demand Draft obtained from a Scheduled Bank and attach the same with his tender failing which the tender will not be considered. No interest shall be allowed on Earnest Money Deposited by the tenderer. The earnest money of the unsuccessful tenderer will be refunded within a reasonable period of time without any interest. The earnest money deposited by the successful tenderer will be retained towards the security deposit for the fulfillment of the work but shall be forfeited if the tenderer fails to deposit the requisite initial security deposit within a period of 7 days after notification of acceptance of his tender.

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6. Initial Security Deposit of such sum sufficient to make up, along with the amount of earnest money deposited with the submission of tender, an amount equivalent to 2% of the work tendered at accepted rates to be furnished at his cost to the Employer by Demand Draft obtained from Scheduled bank within 7 days of the acceptance being communicated to the tenderer. This Security Deposit will be a guarantee and will be kept for the due fulfillment of the contract and towards defects and liabilities for materials and workmanship for a period of one year after satisfactory commissioning and they shall be refunded after the guarantee period.

   i. The tenderer should furnish a time schedule separately for each of the work.

   ii. The work of Fabrication, erection and commissioning of the new system / plant with its accessories in its position should be commenced with 7 days from the date of receipt of the work order for the same from TANFED and should be completed in all respects within the time schedule.

7. The work should be completed in all respects within the time specified in the Schedule ‘C’.

8. The tenderer shall quote both in figures as well as in words.

9. The tenderer must furnish a list of similar works executed or under execution.

10. The tenderer must enter into an agreement for executing the above work with TANFED within 7 days of notification and shall bear all the stamp incidental expenditure.

11. TANFED does not bind itself to accept the lowest or any tender and reserve itself the right of accepting the whole or any part of the tender or rejecting the same fully or partly without any reason.

12. TANFED reserves the right to distribute the work between more than one contractor. The whole work may be split up and accepted in part or whole entirely at the sole discretion of the Managing Director, TANFED, Chennai. The tenderer should specifically state if he would be willing or not to accept the part of the work.

13. The General tender notice shall be deemed to form part of the agreement.

1. ABOUT THE PROJECT

PREAMBLE:-

TANFED has Constructed 3no. x 320 mt Capacity Onion storage godowns Covered with Asbestos sheet roof and eight Onion Storage Bins of 40 mt in two tiers in each godowns along with other infrastructural facilities like Administrative office, Godown Keeper and watchman quarters, Lavatory Block, Bore well and Over Head water Tank at E.Sithur village, Vedasandhur Taluk, Dindigul District during 1992 in a sprawling land of 8.47 Acres.
After establishing the Onion Storage godowns, seasonal temperature and climatic changes proved that the wind pattern and the velocity of the air flow are not ideal for stories of Onions. Due to this the Onion Stored in the above godowns get deteriorated in quality and the facility encountered loss right from it’s inception and kept unutilised for quite a long time.

2. GENERAL AND DETAILED DESCRIPTION OF THE PROJECT

1) To bring into the use of the above infrastructural Facilities TANFED proposes to remodel the existing open structure 3 nos of Onion storage godowns as Covered structure by constructing walls alround and additional construction to cover the gap of 13.00 m each in between the three godowns with RCC Columns, Beams. Lintels, M.S Angles iron roof truss A.C Sheet roofing etc., to form a single unit for establishing a fertiliser granulation plant to produce NPK 17:17:17 with Production Capacity of 100 mt per day.

2) The Onion Storage Bins in all the 3 godowns will be dismantled and the M.S Angle , M.S Channels, retrieved will be reutilised for Fabrication of truss and purlins for the proposed covering of the gaps in between three godowns.

3) It is also proposed to renovate the other infrastructural facilities like administrative office building, Godown Keeper and watchman quarters, OHT, Lavatory Block etc., besides providing new bore well of 800 to 1000 feet deep, Construction of compound wall alround the premises and formation of internal needs.

4) On completion of the remodeling of the godowns, One godown will be put into use for Storing Raw materials, Middle godown for establishing granulation plant and Machineries and the third godown for standardizing, Packing and stacking of end Product (NPK 17:17:17) for dispatch.

The Granulation plant shall consists of the following equipments and are narrated in the sequence of operation.

1) 6.Nos Hoppers to hold different variety of fertilizers namely DAP, Urea, MOP, SSP, Gypsum, Deoiled neem cake powder.
2) Raw Materials Conveyor to feed raw materials into hoppers.
3) Raw materials Conveyor and common materials Conveyor.
4) Paddle Mixer
5) Mixed Material Conveyor to feed Granulator Drum

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6) Granulator Drum  
7) Furnace  
8) Drier drum  
9) Cooler Drum  
10) Dust Collector for Drier Drum and Cooler Drum.  
11) Cooled Material Conveyor & Elevator  
12) Screen  
14) End Product (NPK 17:17:17) Standardisation and Bagging.

3. AREAS OF PROBLEMS TO BE ADDRESSED AT PRESENT  
   (i) To Bring back the Infrastructural facilities in to usage.  
   (ii) The NPK 17:17:17 granulated fertiliser now produced at our Mannargudi facility address the needs Cauvery Delta Districts and adjoining Districts farmers only. If the same facilities are developed at Dindigul District it will Cater to the needs of farmers of, Madurai, Theni, Virudhunagar, Tirunelveli, Sivagangai, Ramnad, Thoothukudi,Tirupur, Coimbatore, Erode, Namakkal and salem Districts.  
   (iii) With the above production facilities, TANFED can have saving on transport cost and supplies can be effected at reasonal cost to the farmers when compared to despatches made from Mannargudi facilities.

4. AIMS AND OBJECTIVES  
   (i) TANFED proposed to maintain the market share of complex Fertiliser NPK 17:17:17 Competing with others Private Producers with cost effectiveness to Farmers.  
   (ii) Aims to maintain availability of Complex fertiliser stock in each of the Co-operative credit Societies especially at the initial stage of farming / sowing.

5.0 GENERAL INSTRUCTIONS TO CONTRACTOR  
   5.1 The tender submitted by the contractor in this tender document submitted to the Employer shall form part of this agreement. The deviations from the tender document submitted which are mutually agreed during negotiations and work order would be exceptions to the conditions imposed in the tender documents.  
   5.2 The Work shall be executed as required in the technical specifications, descriptive literature and drawings. The tenders include all minor accessories not specifically mentioned in the technical specification, but essential for the completeness of the plant / system. The tenderer shall not be eligible for any extra charges in respect of such minor accessories, though not included in the tender.

Signature of CONTRACTOR
5.3 Delivery of all the required equipments and components and fabricated items in respect of the contract shall be completed within FOUR months from the date of agreement and the work should be completed in all respects on or before as per time schedule. The completion time shall be strictly observed by the contractor and shall be reckoned from the date on which the agreement is signed.

5.4 The Employer shall make available suitable space for storage of equipment, tools and tackles of the contractor but the responsibility for safety and security of such materials shall rest with the Contractor,

5.5 Acceptance of the tender shall be governed by the "GENERAL Conditions of Contract" stipulated hereinafter.

5.6 The tenderer is advised in his own interest to satisfy himself about the plant building and sequence of production process of granular Fertiliser NPK 17:17:17 prior to offering their tender.

6.0 GENERAL CONDITIONS OF CONTRACT

6.1 DEFINITION OF TERMS

The following terms used hereinafter for the sake of brevity shall have the following meanings :-

6.1.1 "Employer" shall mean the Managing Director, TANFED, Chennai-18 and shall include their legal representative/s, assign or successor/s.

6.1.2 "CONTRACTOR" shall mean the Tenderer whose tender has been accepted by the Employer and shall include the Tenderer's heirs, successors and assigns approved by the Employer.

6.1.3 "LETTER OF INTENT" shall mean the Employer's letter to the Contractor/Tenderer conveying the acceptance of his/tender subject to such reservations as may be stated therein.

6.1.4 "CONTRACT" shall mean the agreement between the contractor and the Employer to be entered into under clause (7.0) of these conditions and shall include the Tender Notice, General Conditions of Contract, Specifications, Schedule of equipment, letter of intent of the Employer and any subsequent correspondence/amendments mutually agreed upon in writing.

6.1.5 "ENGINEER" shall mean The Civil Engineer or some other person for the time being or from time to time duly appointed in writing by the Employer to act as Engineer for the purpose of the Contract or in default of such appointment by the Employer.

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7.0 CONTRACT AGREEMENT:

A formal agreement shall be entered into by the contractor with the Employer for the proper fulfillment of the contract. In case the agreement is not executed by the Contractor within 7 days of receipt of intimation from the Employer to do so, the Employer may at his option without prejudice to any other price or claims against the contractor within seven days and before execution of the agreement by the Contractor by notice in writing revoke the acceptance of the tender, and thereupon the Employer shall not be liable to any claim from the contractor for work already done. The earnest money deposited with the tender shall be forfeited to the Employer.

7.1 DEFINITION:

In this contract unless the Context otherwise requires.

7.1.1 Contract means this contract, all annexure and amendments agreed in writing hereinafter.

7.1.2 System means the Granulation Plant & Machineries, its fixtures, accessories and equipments as given in the Schedules attached A.

7.1.3 Plant means the Onion Storage godown to be converted as plant producing granulated complex fertilizers within battery limits at E.Sithur Village, Vedasandhur Taluk, Dindigul District, Tamil Nadu State.

7.1.4 The effective date of the contract means the date upon which the contract is signed.

7.1.5 The total contract amount means the sum that may be agreed upon and form part of this agreement as the net price payable for Design, Engineering, Supply, Erection Testing and Commissioning of fertilizer Granulation Plant to manufacture NPK 17:17:17 complex at 100 MT Per and Construction of Furnace at Onion Storage godown at E.Sithur Village, Vedasandhur Taluk, Dindigul District and the charges for the transportation inclusive of loading, unloading, handling, moving it to a place earmarked for it with in the premises of the Onion Storage godown at E.Sithur Village, Vedasandhur Taluk, Dindigul District, erecting the manufactured system exactly as per the present system and Commissioning the system as per the time schedule duly erected and commissioned on “Turn Key“ basis using supplier’s own tools and tackles, as per this contract and which is inclusive of all taxes, duty and other fees and levies made by Government or local body.

7.1.6 Battery limit means the Onion Storage godown premises.

7.1.7 Date of commissioning shall be deemed to be the date on which the buyer takes over the completed system after erection and commissioning thereof when guarantee specified in the contract are fulfilled or are deemed to have been fulfilled.

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7.2 **Completeness of Contracts:**

The Contractor shall provide without any extra charge all items whether specifically mentioned or not but which are usual or required to make a complete working of plant and to ensure safe and satisfactory operation unless excluded clearly. ' All apparatus, material or labour which may be necessary to complete the work in accordance with the intent or purposes of these specifications shall be considered to be in the scope of work of the contract and shall be furnished without extra charge, as if fully described and called for in these specifications and / or shown on plans.

8.0 **Statutes:**

8.1 The contractor shall comply with all rules, and regulations of local and other statutory authorities having jurisdiction over the works and shall be responsible for the payment of all fees and other charges and the giving and receiving of all necessary notices, and keep the Employer informed of the said compliance with the laws, payments made, notices issued and received.

9.0 **Obligations of the Buyer:**

The obligation of the buyer for fulfillment of the contract are as stated below:-

9.1 The buyer at site shall provide and arrange power supply, water and a transformer arc welding machine and arrangement for gas Cylinders without regulator and gas welding equipment for which necessary hire charges will be recovered from supplier and the cost of gas cylinders will have to be borne by the supplier. The buyer is not responsible for the power failures.

9.2 The buyer will arrange for godown and watchmen facilities for the safe custody and storage of all goods delivered by the supplier at the factory site.

9.3 The buyer will execute or arrange to execute civil works if necessary for erection and commissioning.

9.4 The Contractor shall indemnify the Employer against all claims in respect of patent rights, design, trademarks of name or other protected rights in respect of any plant, machine, work or material used for or in connection with the works or temporary works and from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. The Contractor shall defend
all actions arising from such claims, and shall himself pay all royalties licence fees, damages, costs and charges of all and every sort that may be legally incurred in respect thereof.

9.5 The Contractor shall adhere to the provisions of all labour laws and apply the same to the workers who are all engaged in execution of this work. It shall be the responsibility of the contractor against any action, claims or demand made by any authorities or labour or any person under them. The employer is in no way responsible for the workers claiming compensation in execution of this work.

10.0 DRAWINGS & LITERATURE:

10.1 Within 7 days of the acceptance of the tender, Contractor shall furnish three (3) prints of layout, assembly and erection drawings for approval. If any modifications are proposed by the Employer / four (4) further prints of the modified drawings shall be submitted. No modifications shall be made in a drawing after it has been approved by the Employer, in writing. All drawings necessary for assembly, erection, Maintenance, repair and operation of the equipment shall be furnished. Different parts shall be suitably numbered for identification and ordering of spare parts.

10.2 Approval by the Employer of the drawings shall not relieve the contractor of any part of his obligation to meet all the requirements of the Contract or of the correctness of his drawings. The Contractor shall be responsible for and pay for all alterations of the works due to discrepancies or omissions in the drawings or other particulars supplied by him whether such drawings have been approved by the Employer or not.

10.3 Two (2) copies of a "Comprehensive Manual" for use by the Employer before and during erection and subsequent operation and maintenance of the plant / system shall also be furnished after approval of the contract drawings.

10.4 The Contractor shall furnish and install in the machine room a neatly prepared set of operating instructions, securely framed and glazed and also furnish its tracing.

11.0 INSPECTION & TESTING:

11.1 The Employer or his authorised representative shall have full power to inspect the work or examine the materials and workmanship of the plant at the Contractor's works or at any place from which the material or equipment is obtained. Acceptance of any material or equipment shall in no way relieve the Contractor of his responsibility for meeting the requirement of the specification. Routing and type tests for the various items of equipment shall be performed at the Contractor's works and test certificates furnished. The contractor shall permit the Employers authorised representative to be present during any of the tests. After notification to the Employer

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that the installation has been completed the contractor shall make under the direction and in the presence of the Employer / Consultant such tests and inspections as have been specified or as the Employer / Consultant shall consider necessary to determine whether or not the full intent of the requirement of the plans and specifications have been fulfilled. In case the work does not meet the full intent of the specification and further tests shall be considered necessary the contractor shall bear all the expenses thereof.

12.0 OBLIGATION OF THE SUPPLIER

12.1 Supplier shall manufacture and supply complete system or part as per the schedule A&B, at site duly insured at supplier’s cost, for transit storage fitting till commissioning with an approved insurance Company as suggested by the supplier. Items of the system will confirm to the standard technical specifications furnished by the supplier and will be in full serviceable condition. If required, for transportation or any other reasons, some items may be delivered in part or parts and supplier will take care, at their expenses, to carryout the fabrication and assembly of any part or items at the plant site as may be necessary.

12.2 Loading of the system or part thereof in the trucks or wagons will be done at the suppliers cost and risk. Transport of the system or part thereof in trucks or by rail will be done by the supplier at their cost and risk.

12.3 Unloading and fittings of the system or part thereof will be done by the supplier at their cost and risk.

12.4 Commissioning of the system or part thereof will be done to the entire satisfaction of the buyer by the supplier at their own cost and risk.

12.5 Tools, tackles and erection equipment etc., will be provided by suppliers at their cost and at the buyers factory site as and when necessary and shall remain as their property. It will be taken back by the suppliers at their own discretion.

12.6 Specification given in Schedule or illustrations submitted are binding but any change required for satisfactory commissioning of the system or part thereof will be done by the supplier at their cost only with the consent of the buyer in writing.

12.7 The accommodation and other facilities for erection staff and workers shall be the lookout of the supplier. The buyer is not responsible for the same.

12.8 A well qualified and experienced Erection Engineer shall he posted by the supplier at site for the Dismantling and erection works who will be responsible for all the works carried out by the supplier.

13.0 PRICE & TERMS OF PAYMENT:

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13.1 For manufacturing, loading, transporting, unloading, dismantling, of the present system, moving it to a place earmarked for it, erecting and commissioning of the system at site as specified in Schedule A, B & C on “Turn Key” basis inclusive of GST. The supplier will produce the invoices and bills in the manner in which the buyer requires it, without any change in the agreed cost.

13.2 The Contract price shall be due to the supplier only after the discharge of all the responsibilities and obligations of the supplier and any amount paid prior there to by the buyer shall be treated as advance towards the contract price and not as an independent payment. The buyer shall have the right to and be entitled to be refunded the entire amount paid as and by way of advances with interest at the rate of 13.50% in the event of supplier not supplying the system, or part thereof and services required as per terms of the agreement and fulfilling the contract and guarantees given by the supplier to the entire satisfaction of the buyer.

13.3 The contract price given in this agreement includes all the obligations of the supplier laid down in clause 4.

13.4 The contract price mentioned in the agreement will be firm and not subject to escalation.

13.5 Payment will fall due in several instalments as follows:

(i) 30% of the contract amount will be paid within 15 days from the date of agreement subject to production of bank guarantee for the value equivalent to 30% of the contract amount to secure repayment to the buyer of this advance in the event of non fulfillment of the contract by the supplier and such guarantee shall be valid for a period of six months from the date of agreement. This guarantee shall be released to the supplier as soon as the materials are delivered to the site.

(ii) Another 45% of the contract amount shall be paid within 15 days of the progressive deliveries of the system on pro rate basis after the due verifications of the materials at site. If the materials supplied required replacement by the technical staff of the TANFED, Ltd., the same shall be replaced immediately and before the due date for payment of installment.

(iii) Out of the remaining 25% of the total contract value 20% will be released immediately on successful commissioning of the system to the satisfaction of the buyer against production of an indemnity bond to cover the performance guarantee stipulated under clause 6 & 8 of this agreement and the balance 5% will be released after one year.

(iv) GOODS AND SERVICE TAX: The Supplier shall clearly mention the rate of GST applicable for each and every component of the Plant, Machineries, Motors and Gear Boxes to be supplied for this work.

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14.0 MATERIALS AND WORKMANSHIP GUARANTEES:

14.1 The supplier guarantees that the system supplied by the supplier shall be the best for this specified duty both in material construction and workmanship. Further the supplier guarantees that the system supplied by him will be in accordance with the specification of Indian Standards Institution or in accordance with the Standard specified by the buyer whichever shall be considered stricter and which shall always be supplied brand new and unused and that none of the same shall be second hand or reconditioned. The supplier agrees to provide the buyer test Certificates from Government agencies for the material supplied by him wherever and whenever referred by the buyer.

14.2 All the bearings shall be of a standard make as specifically mentioned by a technical representative of TANFED, Chennai.

14.3 All the supporting rollers, Girth Gear, pinion thrust rollers shall be the best cast steel and machined to close tolerance.

14.4 All the shaft shall be manufactured out of the best shaft steel.

14.5 All the bolts and nuts shall be of the best materials and of a standard manufacturing provided with plate washers, spring washers and taper washers wherever necessary.

14.6 Supplier agrees that welding and cutting with arc welding and gas welding shall be done in the best manner possible with experienced welders.

14.7 Supplier agrees that drilling holes shall be done only with a drilling machine and not by gas cutting.

14.8 Authorised technical representative of TANFED shall have access to the works of the manufacturer, to inspect and examine the materials and workmanship of the system during manufacture and shall also be entitled to be present during testing. Should any disagreement arise between the suppliers and buyer’s representatives in respect of the items of equipment inspected and or tested, supplier shall take due consideration if any objection of the buyer’s representative and change the equipments to the satisfaction of the buyer.

14.9 All works shall be of approved type. The work shall conform to relevant code of practice and sound engineering principles. The decision of the representative of the buyer in accepting or rejection the specification adopted in the work shall be final conclusive and binding on the supplier.

15.0 GUARANTEE OVER WORKMANSHIP AND THE SYSTEM

The supplier guarantees for one year from the date of commissioning the complete system for the satisfactory performance of the system. The supplier further guarantees that the system will run for one year continuously without any breakdown or undue wear and tear attributable to poor workmanship manufacturing defects and defects in material.
16.0 LIQUIDATED DAMAGES FOR NON FULFILMENT OF CONTRACT
FOR THE SYSTEM OR PART THEREOF

16.1. Time shall be considered as the essence of the Contract.

16.2. If the supplier fails to complete the commissioning of the system according to the agreed time schedule then in such case supplier shall after allowing a grace period of 3 days to the agreed time schedule, necessary grant of extension of time obtained unless under the provisions of this agreement, pay liquidated damages to the buyer at the rate of 1% of the total contract price as agreed by both the parties per week. Such liquidated damages will be payable within one week of the date on which the relevant item of the system is finally commissioned to the entire satisfaction of the buyer by the supplier and the buyer shall deduct the said amount as arrived towards liquidated damages from the amount payable to the suppliers towards the contract price or any other amount due to the supplier from the buyer. The supplier shall not question such deductions made by the buyer towards liquidated damages and the same is binding on the supplier. The total penalty under this clause shall, however, not exceed 5% (Five percent) of the contract value.

16.3. Notwithstanding the above if the delay in commissioning the system exceeds Five weeks beyond the agreed time schedule, the buyer shall be entitled to give the supplier 7 days notice to finish and commission the delayed items within the period mentioned in the notice.

16.4. If the supplier fails to comply with such notice, the buyer shall be entitled to procure in a business like manner the items from any other party at the cost and expenses of the supplier, which shall be paid to the buyer as soon as the amount thereof has been ascertained and communicated. This will be in addition to the liquidated damages payable as aforesaid.

17.0 FOR NONFULFILMENT OF MATERIALS AND WORKMANSHIP
GUARANTEE

If any item of the system supplied is found to be defective during erection and in any case within a year from the date of commissioning the system, due to manufacturing defects, defective materials in construction or defective workmanship, the buyer shall notify the supplier of the defects and within 14 days from the date of the receipt of such notice the supplier shall notify the buyer of the date upon which the supplier intends to carry out the inspection and replacement or the repairs to the defective items and shall carryout the same at supplier’s cost within 14 days. Where pursuant to this clause repairs or replacement is required to be carried out at the site the buyer agrees to extend full cooperation to enable the supplier to carryout such repairs or replacement in the shortest and best way by securing at supplier’s cost., the supply of required labour, materials, tools, utilities as are required for the disassembly of the items to be repaired or replaced and the assembly for installation of the required or replaced items. The buyer also agree to issue any items of spare parts available at site to the supplier for carrying out the repairs or replacement of the above mentioned defective items and the supplier shall

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replace such spare to the buyer. The supplier shall guarantee, all such items replaced or repaired under this clause against any defects of materials and or workmanship under the same terms and conditions as above for a further period of one year from the date of replacement or repair.

18.0 FORCE MAJEURE:

18.1 Neither supplier nor the buyer shall be considered in default in performance of its obligation hereunder, if such performance and work is prevented or delayed for any causes beyond the reasonable control of the party affected such as war, hostilities, revolution, Civil Commotion, strike, epidemic, fire, flood, earthquake or because of any law and order proclamation, regulations or ordinance of the Government or sub division thereof or because of any act of god. Should one or both the parties be prevented from fulfilling the contractual obligations by a state of force-majure lasting continuously for a period of 6 months, the two parties shall consult with each other regarding the future execution of the contract.

19.0 ARBITRAITON

If any dispute or differences of any kind whatsoever will arise between the Supplier / Buyer in connection with or arising out of this contract, it shall in the first place be settled by direct negotiation by both parties. If the parties fail to reach an amicable settlement within 30 days from the date of commencement of the direct negotiations, the dispute shall be decided as per Arbitration and Conciliation Act, 1996 and any amendments there on.

20.0 GENERAL

20.1 This contract contains the entire agreed terms and conditions in general between the two parties. But it may be amended or altered in future, only in writing duly executed by the parties. No written communication from one party to another shall be deemed to be an amendment or alteration of the contract unless the same communication specifically states that it is an amendment or alteration of the contract in terms of this clause and is accepted as an amendment by the other party. The terms and conditions of the contract shall not be disclosed by either party to any third party without the written consent of other party.

20.2 The supplier shall indemnify, protect and keep harmless the buyers against all claims, losses cost damages, expenses, action, suite or other proceedings resulting from infringement of any patent, trade mark, copyright or other similar industrial property, composition unpatented invention applied in the equipment. In the event of any claim being made or action brought against the buyer arising out of the matters set out in their part, the supplier shall be promptly notified thereof and may at supplier’s own expenses conduct all negotiations for the settlement of the claims or dispute or meet any litigation that may arise there from. The buyer shall not unless and until the supplier have failed to take over the conduct of the negotiation or litigation make any admission which might be prejudicial to the supplier thereto. The buyer shall at the request of the supplier, offer all

Signature of CONTRACTOR
available assistance for the purpose of contesting any such claim or action and the buyer shall be repaid by the supplier all reasonable expenses incurred in such action. Not with standing the above provisions relating to the patent rights the supplier agrees to indemnify the buyer against all suits and actions arising out of or in connection with the supply, dismantling erection and commissioning of the system.

20.3 The buyer and supplier shall in no-way be responsible for any liabilities arising out of the suppliers and the buyers contractual obligation with their respective Sub-Contractors licensors, vendors or subsidiaries.

20.4 Any notice required under the contract shall be in English Language and shall be given either personally with acknowledgement or by post, E-mail or cable (in case of telegram or cables message would be confirmed by letters) and shall be deemed as sufficiently given if and when sent to the party to their address given herein or if and when mailed by the registered post, postage prepaid addressed to such party at each address. Either party may give notice to other, give change of its address for receiving such notices.

20.5 Supplier and buyer agree that each will assure full risk of damage or injury to its own properties representatives and employees caused by an act or omission including negligence on the part of employees of the representatives of the other during the performance of the contract. Each hereby releases the other from any and all liabilities for loss or damage so caused to its own properties and each agrees to indemnify, hold harmless, the other against all liabilities so caused on account of personal injury to its respective representatives and employees.

20.6 The supplier shall provide first aid for the workers engaged for the execution of work.

20.7 The supplier agrees that he shall not assign the work and sub let any portion of the work to a third party except with the written consent of the buyer.

20.8 The supplier shall be deemed to have thoroughly acquainted themselves with the condition of the contract.

20.9 The tender notice already given shall deemed to be part of this agreement.

20.10 Income Tax at 2% or such other rates as may be prescribed will be deducted from the running bills as required by the Income Tax act.

20.11 The buyer shall have the right to terminate this agreement upon the happening of all or any of the following events. Namely (a) upon the supplier making any agreement or composition with the large body of their creditors or having winding up order passed against their or going into liquidation voluntarily or otherwise, other than for the purpose reconstruction for amalgamation (b) upon any breach or default by the supplier of all or any of the terms and conditions and stipulation herein contained. (c) in case it is brought to the notice of the buyers about the suppliers being banned by Central or State Government or any Government organization.

Signature of CONTRACTOR
20.12 An agreement to be executed and terms contained herein governed by the law / in force where the agreement is signed by parties at Chennai (i.e.) Tamilnadu and it is mutually agreed that Courts at Chennai only have jurisdiction over dispute arising under this agreement. No other Courts will have jurisdiction in this matter except the court situated in Chennai.

21.0 TRAINING OF PERSONNEL:

Necessary staff shall be trained by the successful tenderer for operating the Plant / system. The personnel will be associated with and trained during the erection, testing commissioning and start up period and the training tenure shall extend to a period of 8 weeks from the date of commissioning and start-up. During this period, necessary training may have to be required at contractors / manufacturers works.

22.0 CLEAN UP OF WORK SITE:

During erection the Contractor shall at all times keep the working and storage areas free from waste or rubbish. On completion of erection, he shall remove all structures, debris and leave the premises in a clean and satisfactory condition.
UNDERTAKING

To

The Managing Director,
Tamil Nadu Cooperative Marketing Federation Ltd.,
91, St. Mary’s Road,
Chennai - 600 018.

Dear Sir,

Sub: Tender for Design, Engineering, Supply, Erection Testing and Commissioning of fertilizer Granulation Plant and machineries to manufacture NPK 17:17:17 complex at the rate of 100 MT Per Day as per the specifications and construction of Furnace and Chimney at E.Sithur village, Vedasandhur Taluk, Dindigul District.

****

1. I / We have read and examined the following documents for Design, Engineering, Supply, Erection Testing and Commissioning of fertilizer Granulation Plant and machineries to manufacture NPK 17:17:17 complex at the rate of 100 MT Per Day as per the specifications and construction of Furnace and Chimney at E.Sithur village, Vedasandhur Taluk, Dindigul District, with its accessories.

   a) Notice inviting tender
   b) Instructions to Tenderers
   c) General conditions Of Contract
   d) Technical specifications
   e) Schedule of equipment / material
   f) Drawings / Plans.

2. I / We hereby agree for execution of the works, covering the Design, Engineering, Supply, Erection Testing and Commissioning of fertilizer Granulation Plant and machineries to manufacture NPK 17:17:17 complex at the rate of 100 MT Per Day as per the specifications and construction of Furnace and Chimney at E.Sithur village, Vedasandhur Taluk, Dindigul District, upon the terms and conditions contained or referred to therein and in accordance with the specifications, designs, drawings and other relevant details, on indivisible works contract basis inclusive of Goods and Service Tax as applicable, freight / free delivery at site, handling charges installation / fixing, Testing and commissioning at a total cost of Rs.________/- (Rupees ____________________________ only) Price schedule is appended.

   Signature of Contractor

   Designation

   Office Seal

Signature of CONTRACTOR
PARTICULARS TO BE FURNISHED BY THE TENDERER

1) Name of the Tenderer with Address
   Telephone No. : 
   E-Mail : 
   Contact Person Name / Designation : 

2) Name of work : 

3) Date of Tender : 

4) Total value of Tender : 

5) Details of EMD
   (a) Demand Draft No. : 
   (b) Date : 
   (c) Drawn on : 

6) Registered class of the Tenderer
   with Monetary limit & Department
   in which registered (Copy of registration should be enclosed) : 

7) Whether the tenderer is a licenced manufacturer copy of Licence shall be enclosed : 

8) Recent work executed : 
   (Name of work, place of work
   value of work should be mentioned) : 

9) Works under execution (Name, Place
   and value of work should be mentioned) : 

10) Command of labour in brief : 

11) Turnover in previous year : 

12) Whether Income Tax clearance certificate enclosed ? If not when : 

Signature of CONTRACTOR
it will be produced

13) GST & PAN number : 
   (i) GST NO :
   clearance certificate is enclosed ?
   If not when it will be produced
   (ii) PAN Number :

14) Technical Assistant Details :

   I (i) Name :
   (ii) Qualification (copy should be enclosed) :
   (iii) Experience certificate :

   II (i) Name :
   (ii) Qualification (copy should be enclosed) :
   (iii) Experience certificate :
   (or)
   Name :
   If retired Electrical Engineer,
   Designation and date of retirement (copy to be enclosed)

15) Any other details

Note : The consent letter from the Technical Assistant proposed to be employed should be obtained and enclosed with the Tender during submission of the tender.

Signature of CONTRACTOR
TAMIL NADU COOPERATIVE MARKETING FEDERATION LIMITED
91. St. Mary’s Road, Chennai - 600 018.

TENDER FOR DESIGN, ENGINEERING, SUPPLY, ERECTION TESTING AND COMMISSIONING OF FERTILIZER GRANULATION PLANT AND MACHINERIES TO MANUFACTURE NPK 17:17:17 COMPLEX AT THE RATE OF 100 MT PER DAY AS PER THE SPECIFICATIONS AND CONSTRUCTION OF FURNACE AND CHIMNEY AT E.SITHUR VILLAGE, VEDASANDHUR TALUK, DINDIGUL DISTRICT

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PART - B
Specifications & Price Bid
Due date : 20.09.2018 at 2.00 P.M.

NAME & ADDRESS OF CONTRACTOR:

M/S. ...................................................
..................................................
..................................................
..................................................
..................................................
..................................................
..................................................
The Quantities given here are those upon which the lump sum tender cost of work is based but they are subject to alterations, omissions, deductions (or) additions as provided for in the conditions of this contract and do not necessarily show the actual quantities of work to be done. The unit rates noted below are those governing payment for extra (or) deduction (or) omission (or) additions according to the conditions of the contract as set forth in the preliminary specifications of the Tamilnadu detailed standard specifications of this contract.

It is to be expressly understood that the measured work as to be taken ‘Net’ not withstanding any custom (or) Practice to the contrary according to the actual quantities where in place and finished according to the drawing (or) may be ordered from time to time by the Managing Director and the cost calculated by measurement (or) weight at the respective prices without any additional charges for any necessary (or) contingent works connected herewith. The rates quoted are for works in Situ and complete in every respect.

c. The GST amount shall be Subsumed at the end of Price bid.

PLANT AND MACHINERIES
<table>
<thead>
<tr>
<th>SL No</th>
<th>Approx. Quantity</th>
<th>Description of item of work</th>
<th>Motor (H.P.)</th>
<th>Gear Box</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1 No.</td>
<td>Manufacturing and supplying and Erection of M.S. Cooler Drum 1250 mm dia x 8000 mm of total length made out of M.S. sheet 12 mm thick throughout conforming to IS2062. The above cooler drum shall be provided with cast steel tyres and Girth Gear as shown in the drawing. The cast steel tyres 2 Nos. and Girth Gear in 1 pieces will be supplied by the Buyer. There are 4 Nos. of hammer belt fitted in the cooler drum. Each hammer belt has to be fitted with 4 Nos. of knocking hammers which has to be manufactured by the supplier and each to be welded fully with the cooler drum as shown in the drawing. 20 Nos. of Lifters of 6 mm thick plate and 8 Nos. of guide plate of 6mm mm thick are to be fitted to the Drum. The Cooler Drum shall be fitted with 1 No. of girth gear (1 pieces) and 2 Nos. of Tyres which will be supplied by the buyer at your site, but the rate should include the fixing of girth gear and cast steel Tyres in the drum.</td>
<td>U800 20:1</td>
<td></td>
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</tr>
<tr>
<td>1 (a)</td>
<td>1 No.</td>
<td>Manufacturing, supplying of Girth Gear 1300 mm (I.D) and 190mm width in four segments made of cast hardened steel confirming specification with EN9 GM 8620 with pinion (21-23 teeth) to suit the girth gear (130 teeth) and shaft of gear box and to be supplied with segment connection, bolts, washers and nuts. The girth gear tooth shall be smoothly machined to have friction free running/rolling with pinion mounted gear box as per the rough sketch enclosed.</td>
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</table>

Signature of CONTRACTOR
| 1 (b) | 2 Nos | Manufacturing, supplying of 1 No. Cast hardened steel tyre with EN8 steel 1370 with I.D. width of 120mm and thickness of 57 mm and to suit the above Drum of 1250mm dia. 2 Nos. of Trunnion Wheel of 300 mm dia and 150mm width provided with two nos. of SKF bearing 6318 with bearing cover plate the entire assembly shall be mountable on a base frame as shown in the enclosed sketch and with 4 NOS. of supporting rollers for the tyre. The material of construction of both Tyres and Trunnion Wheel, shaft and mounting body shall be of best mild steel confirming to relevant IS specifications. |

**Note for Cooler Drum:**

1. There shall be 4 hammer belts of two halves each carrying 4 hammer brackets welded with the drum fully as mentioned in the places at the time of Erection.

2. The drum shall be provided with 24 lifter plates of 625 mm length x 250 mm width and 8 mm thick with 3 Nos. 75 x 75 x 6 mm M.S. angle cleat of 625 mm length for each plate. The places of fixing and welding will be exactly as per the existing system.

3. 8 Nos. of guide plates of 6 mm thick of size 625 mm length x 250 mm will have to be provided inside.

4. The drum shall be painted with one coat of Zinc Primer and one coats of anti corrosive paint of approved quality. The 2nd and 3rd coat shall be given at the buyer site.

5. Hood Cover: Hood Fabricated with 5mm sheet and fitted at both ends of drum to eliminate the wastage of the material during falling on conveyor belt.

Signature of CONTRACTOR
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<tr>
<td>2</td>
<td>1 No.</td>
<td>Manufacturing and supplying and Erection of M.S. Drier Drum 1250 mm dia x 7500 mm of total length made out of M.S. sheet conforming to IS 2062. 12mm thick Through out. The above drier drum shall be provided with cast steel tyres and Girth Gear as shown in the drawing. The cast steel tyres 2 Nos. and Girth Gear in 1 pieces will be supplied by the Buyer. There are 4 Nos. of hammer belt fitted in the drier drum. Each hammer belt has to be fitted with 4 Nos. of knocking hammers which has to be manufactured by the supplier and each to be welded fully with the drier drum as shown in the drawing. 36 Nos. of Lifters of 6 mm thick plate and 8 Nos. of guide plate of 6 mm thick are to be fitted to the Drum. The Drier Drum shall be fitted with 1 No. of girth gear (1 pieces) and 2 Nos. of Tyres which will be supplied by the buyer at your site, but the rate should include the fixing of girth gear and cast steel</td>
<td>15</td>
<td>U800 20:1</td>
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<tr>
<td>2 (a)</td>
<td>1 No.</td>
<td>Manufacturing, supplying of Girth Gear 1300 mm (I.D) 190 mm width in four segments made of cast hardened steel confirming to EN9 GM 8620 with pinion (21-23 teeth) to suit the girth gear (130 teeth) and shaft of gear box and to be supplied with segment connection, bolts, washers and nuts. The girth gear tooth shall be smoothly machined to have friction free running/rolling with pinion mounted gear box as per the rough sketch enclosed.</td>
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Signature of CONTRACTOR
2 (b)  2 No.
Manufacturing, supplying of 1 No. Tyre Fabricated with EN8 steel with I.D. of 1370 mm tyre width of 120mm and thickness of 57 mm and to suit the above Drum of 4 Nos. of Trunnion Wheels of 300 mm dia and 150mm width provided with both of SKF bearing 6318 with bearing cover plate the entire assembly shall be mountable on a base frame as shown in the enclosed sketch and duly fitted with central M.S. shaft 100 mm dia to rotate on vertical axis and fitted with 4 NOS of supporting rollers for the tyre. The material of construction of both Tyres and Trunnion Wheel, shaft and mounting body shall be of best mild steel confirming to relevant IS specifications.

**Note for the Drier Drum:**

1. There shall be 4 hammer belts of each carrying 4 hammer brackets welded with the drum fully as mentioned in the places at the time of Erection.

2. The drum shall be provided with 36 lifter plates of 625 mm length x 250 mm width and 6 mm thick with 3 Nos. 75 x 75 x 6 mm M.S. angle cleat of 625 mm length for each plate. The places of fixing and welding will be exactly as per the existing system.

3. 8 Nos. of guide plates of 6 mm thick of size 625 mm length x 250 mm will have to be provided inside the drum.

4. The drum shall be painted with one coat of Zinc Primer and one coats of anti-corrosive paint of approved quality. The 2nd and 3rd coat shall be given at the buyer site.

5. Hood Cover: Hood Fabricated with 5mm sheet and fitted at both ends of drum to eliminate the wastage of the material during falling on conveyor belt.

Signature of CONTRACTOR
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<tr>
<td>3</td>
<td>1 No.</td>
<td>Manufacturing and supplying M.S. Granulator Drum 1250 mm dia x 4800 mm of total length made out of M.S. plate conforming to IS 2062. The entire length of drum shall be of 12 mm thick M.S. Plate. The above Granulator Drum shall be provided with cast steel tyres and Girth Gear as shown in the drawing. The cast steel tyres 2 Nos. and Girth Gear in 1 pieces will be supplied by the Buyer. There are 4 Nos. of hammer belt fitted in the Granulator Drum. Each hammer belt has to be fitted with 4 Nos. of knocking hammers which has to be manufactured by the supplier and each to be welded fully with the Granulator drum has shown in the drawing. One retaining wall of 12 mm thick plate and 1 No. Inlet Shell ring of 12 mm thick plate to be fitted to the drum consultation with our Plant Manager. The Granulator Drum shall be fitted with 1 No. of girth gear (1 pieces) and 2 Nos. of Tyres which will be supplied by the buyer at your site, but the rate should include the fixing of girth gear and cast steel Tyres in the drum.</td>
<td>10</td>
<td>U800 20:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (a)</td>
<td>1 No.</td>
<td>Manufacturing, supplying of Girth Gear 1300 mm (I.D) 190 mm width in four segments made of cast hardened steel confirming to EN9 GM 8620 with pinion (21 - 23 teeth) to suit the girth gear (130 teeth) and shaft of gear box and to be supplied with segment connection, bolts, washers and nuts. The girth gear tooth shall be smoothly machined to have friction free running/rolling with pinion mounted gear box as per the rough sketch enclosed.</td>
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<tbody>
<tr>
<td>3 (b)</td>
<td>2 No.</td>
<td>Manufacturing, supplying of 1 No. Tyre Fabricated EN8 steel tyre with I.D. of 1370 mm tyre width of 120mm and thickness of 57 mm and to suit the above Drum of 1250mm dia.(O.D) 4 Nos. of Trunnion Wheels of 300 mm dia thick and 150mm width provided with both. of SKF bearing 6318 with bearing cover plate the entire assembly shall be mountable on a base frame as shown in the enclosed sketch and duly fitted with central M.S. shaft 100 mm dia to rotate on vertical axis and fitted with 4 NOS of supporting rollers for the tyre. The material of construction of both Tyres and Trunnion Wheel, shaft and mounting body shall be of best mild steel confirming to relevant IS specifications. Note for the M.S. Granulator Drum: 1 There shall be 4 hammer belts of two halves each carrying 4 hammer brackets welded with the drum fully as mentioned in the places at the time of Erection. 2 1 No. Inlet shell ring of 12 mm thick M.S. Plate will have to be provided outside the granulator drum at one end (raw material feeding side) . 3 The drum shall be painted with one coat of Red oxide Primer and one coats of anti corrosive paint of approved quality. The 2nd and 3rd coat shall be given at the buyer site.</td>
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<td>4</td>
<td>3 Nos.</td>
<td>Feed Belt For Raw Material: Belt will be the 3 ply, 600mm width and nylon type. The Supporting frame of belt is of MS channel size 100X50mm. Driver roller of size 250X635mm is connected at the both end. Length of the belt is 34 feet (each). Gear box of type Shaft Mounted Reducer (SMR) of ratio 20:1 is used.</td>
<td>2</td>
<td>SMR20 20:1</td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>1 No. (6 Chamber)</td>
<td>Hopper Raw Material Section: Hopper is fabricated with 5mm thick sheet. Hopper is used to pour Raw material. The capacity of each hopper is 5mt. At bottom Face of hopper, a conveyor belt is move, which is collect the raw material and go for further process. A shaft is attached to all hopper,that help to rotate the conveyor belt. The Worm Reducing gear box is used of ratio 60:1.</td>
<td>5</td>
<td>U400 60:1</td>
<td></td>
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<tr>
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<td>6</td>
<td>1 No.</td>
<td><strong>Raw material Belt:</strong> Belt will be the 3 ply, 600mm width and nylon type. The Supporting frame of belt is of MS channel size 100X50mm. Driver roller of size 250X635mm is connected at the both end. Length of the belt is 22 feet (each). Gear box of type Shaft Mounted Reducer (SMR) of ratio 20:1 is used.</td>
<td>2</td>
<td>SMR20</td>
<td>20:1</td>
<td></td>
</tr>
<tr>
<td>7 a)</td>
<td>1 No.</td>
<td><strong>Paddler Mixer:</strong> Paddler mixer and blenders are used to mix or blend. They are mainly used to mixed different materials using different types of blades to make a good quality homogeneous mixture. U-Shaped container is manufacture by Mild Steel of size 600X600mm, and length 1800mm. This contain the paddles in forward and backward directions. A shaft EN8 is passes though the container longitudinally which helps to holds the paddles and used to rotates too. The Worm Reducing gear box is used of ratio 20:1.</td>
<td>7.5</td>
<td>U400</td>
<td>20:1</td>
<td></td>
</tr>
<tr>
<td>7 b)</td>
<td>1 No.</td>
<td><strong>Paddler Mixer to Granulator Conveyor Belt:</strong> Belt will be the 3 ply, 600mm width and nylon type. The Supporting frame of belt is of MS channel size 100X50mm. Driver roller of size 250X635mm is connected at the both end. Length of the belt is 30 feet. Gear box of type Shaft Mounted Reducer (SMR) of ratio 20:1 is used.</td>
<td>2</td>
<td>SMR20</td>
<td>20:1</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1 No.</td>
<td><strong>Granulator to Dryer Conveyor Belt:</strong> Belt will be the 3 ply, 600mm width and nylon type. The Supporting frame of belt is of MS channel size 100X50mm. Driver roller of size 250X635mm is connected at the both end. Length of the belt is 22 feet. Gear box of type Shaft Mounted Reducer (SMR) of ratio 20:1 is used.</td>
<td>3</td>
<td>SMR20</td>
<td>20:1</td>
<td></td>
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<tr>
<td>9</td>
<td>1 No.</td>
<td><strong>Dryer to cooler conveyor belt:</strong> Belt will be the 3 ply, 600mm width and nylon type. The Supporting frame of belt is of MS channel size 100X50mm. Driver roller of size 250X635mm is connected at the both end. Length of the belt is 27 feet. Gear box of type Shaft Mounted Reducer (SMR) of ratio 20:1 is used.</td>
<td>3</td>
<td>SMR20</td>
<td>20:1</td>
<td></td>
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<tr>
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<td>10</td>
<td>1 No</td>
<td>Cooler to screen belt:</td>
<td>3</td>
<td>SMR20</td>
<td>20:1</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Belt will be the 3 ply, 600mm width and nylon type. The Supporting frame of belt is of MS channel size 100X50mm. Driver roller of size 250X635mm is connected at the both end. Length of the belt is 62 feet. Gear box of type Shaft Mounted Reducer (SMR) of ratio 20:1 is used.</td>
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<tr>
<td>11</td>
<td>2 Nos</td>
<td>Screen Section:</td>
<td>7.5</td>
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<td></td>
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<td>Vibrating screen is used for sizing the material. Its fabricated with 8mm thick MS sheet, of size 4X13 feet with EN-8 shaft heavy duty bearings “B” grove pulley, drive by motor. Discharge chute 5mm MS sheet.</td>
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<tr>
<td>12</td>
<td>2 Nos</td>
<td>Hammer Mill:</td>
<td>15</td>
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<td>A Hammer Mill is a mill whose purpose is to shred or crush aggregate material into smaller pieces by the repeated blows of litter hammers. Hammer mill is Fabricated with 12 mm MS sheet body. The rotter is fitted inside the hammer the purpose of rotter is to crush the big pieces into small. Rotter have bitter that is 20mm thick and 280mm long and fitted on the shaft.</td>
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<tr>
<td>13</td>
<td>1 No</td>
<td>Recycle Belt:</td>
<td>3</td>
<td>SMR20</td>
<td>20:1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Belt will be the 3 ply, 600mm width and nylon type. The Supporting frame of belt is of MS channel size 100X50mm. Driver roller of size 250X635mm is connected at the both end. Length of the belt is 30 feet. Gear box of type Shaft Mounted Reducer (SMR) of ratio 20:1 is used.</td>
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<tr>
<td>13 (a)</td>
<td>1 No</td>
<td>Finish Material Belt:</td>
<td>2</td>
<td>SMR20</td>
<td>20:1</td>
<td></td>
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<td></td>
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<td>Belt will be the 3 ply, 600mm width and nylon type. The Supporting frame of belt is of MS channel size 100X50mm. Driver roller of size 250X635mm is connected at the both end. Length of the belt is 40 feet. Gear box of type Shaft Mounted Reducer (SMR) of ratio 20:1 is used.</td>
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<td>14</td>
<td>1 No</td>
<td>Finish Material Hopper:</td>
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<tr>
<td></td>
<td></td>
<td>Hopper is fabricated with 5mm thick sheet. Hopper is used to finished the material. The capacity of hopper is 5mt.</td>
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<td>--------</td>
</tr>
<tr>
<td>15</td>
<td>1 No</td>
<td>Furnace: Furnace is fabricated with 8 mm MS sheet with guarder &amp; channel as per the indicative sketch enclosed. Furnace is used to burn the raw material. Beside the Furnace wall the Fire bricks wall with Cold Face Insulation bricks is constructed. Fire bricks of 50% high alumina is used.</td>
<td>7.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>2 Nos</td>
<td>Cyclone: Cyclone is used to remove the particles from air, gas without the use of filters, through the vortex separation. Fabricated by MS Sheet thickness 5 mm Size 4 X 10feet. Structure fabricated With MS guarder &amp; Channel.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>2 Nos</td>
<td>Blower: Blower is used to blow the air. It’s the centrifugal fan which have radial blades called impeller. Blower is fabricated by 5mm MS Sheet and Impeller is design with dynamic balancing with diameter 660mm</td>
<td>7.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>1 No</td>
<td>Chimney: Chimney is a structure that provides ventilation for hot flue gases or smoke from a furnace. Chimney is Fabricated with 5 mm MS Sheet that have 600 mm diameter and height 15 meter. The base is conical and above that it will be straight.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>1 No</td>
<td>Water Storage Tank: Tank Capacity - 1 KL.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>As Required</td>
<td>Electric Motor: Bharat Bijli Ltd./ ABB motors are used. The type of motors is IE2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>As Required</td>
<td>Gear box: All Standard Make Omex / Greaves(Premium) are used.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>As Required</td>
<td>Platforms: MS fabricated platforms shall be provided as required on various machineries for cleaning &amp; maintenance purpose.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The rate for motors, Gear Box, Platform of approximate capacity shall be inclined in the corresponding item. However, the tenderers are to intimate the cost for each motor and Gear Box separately but not to be billed for.
<table>
<thead>
<tr>
<th>SL No</th>
<th>Approx. Quantity</th>
<th>Description of item of work</th>
<th>Motor (H.P.)</th>
<th>Gear Box</th>
<th>Rate in figures &amp; in words</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td></td>
<td>MMC Control Panel:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fitted with std. make (L&amp;T) Switch gears Starter &amp; Main switch of suitable rating,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td></td>
<td>Remote Control Push Buttons Unit:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Remote Control Push Button units shall Will be provide for various motor to operate locally in the plant these all will be without Amp. meter.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Schedule B) Sub-Total

Add GST @ 18%

Grand Total

Signature of CONTRACTOR
SCHEDULE – ‘ B ‘

****************************************************************************

Name of the work :-

Supply of the Fabricated plant system consisting of all equipments, Conveyors and it’s accessories as given in schedule ‘ A ‘ and loading the same into Vehicles transporting the same to the premises of the E.Sithur Village, Vedasandhur Taluk, Dindigul District. including unloading at the site and handling charges.

AMOUNT IN FIGURES AND WORDS

| Quantity and description as per Schedule ‘ A ‘ | Transport and handling charges |

*****************************************************************************

Signature of CONTRACTOR
### TIME SCHEDULE – C

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Description of item of work</th>
<th>No. of days required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Completion of Fabrication of the entire plant Machineries and equipments duly fitted with its accessories by the supplier from the date of appointment.</td>
<td>70 Days</td>
</tr>
<tr>
<td>2</td>
<td>Transporting and unloading of the entire plant Machineries and equipments duly fitted with its accessories at site at E.Sithur Village, Vedasandhur Taluk, Dindigul District.</td>
<td>10 Days</td>
</tr>
<tr>
<td>3</td>
<td>Erection of new plant system and its accessories and trial runs from the date of receipt of intimation letter for this item of work.</td>
<td>40 Days</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>120 Days</strong></td>
</tr>
</tbody>
</table>

Signature of CONTRACTOR
<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DRUM</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Tyre</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>GIRTH gear</td>
<td>1</td>
</tr>
</tbody>
</table>

ROTATRY COOLER DRUM

All Dimensions are in "mm"
<table>
<thead>
<tr>
<th>ITEM NO.</th>
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</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>3</td>
<td>GIRTH gear</td>
<td>1</td>
</tr>
</tbody>
</table>

All Dimensions are in "mm"
SIDE VIEW

TYRE

All Dimensions are in "mm"
GIRTH GEAR

All Dimensions are in "mm"
<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
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<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Tyre</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>GIRTH gear</td>
<td>1</td>
</tr>
</tbody>
</table>

GRANULATOR DRUM

All Dimensions are in "mm"