#### **TENDER NOTICE**

Tender offers are invited for design, supply, installation & commmissionig of 2000 KVA D.G.Set at Kolhapur Zilla Sahakari Dudh Utp. Sangh Ltd. B-1, M.I.D.C. Gokulshirgaon, Dist.Kolhapur. Tender details along with scope of work, Technical specifications, terms & conditions of the Tender are available at our website <a href="https://www.gokulmilk.coop">www.gokulmilk.coop</a> and also at our Gokul Shirgaon office. Sealed Tender offer duly marked as 'TENDER FOR CUMMINS - POWERICA / CUMMINS SUDHIR / CUMMINS JACKSON MAKE 2000 KVA DIESEL GENERATOR SET WITH SYNCHRONISING PANEL' at B-1, MIDC, Gokulshirgaon, Tal. Karveer Dist. Kolhapur is to be submitted at our GokulShirgaon office on or before 18.03.2025. Right to accept or reject any or all Tenders is reserved.

Managing Director Chairman Kolhapur Zilla Sahakari Dudh Utpadak Sangh Ltd., B-1, M.I.D.C., Gokul Shirgaon, Kolhapur – 416 234

#### KOLHAPUR ZILLA SAHAKARI DUDH UTPADAK SANGH LTD. KOLHAPUR

#### **General Terms & Conditions**

- 1. Bidder should visit site & location of the Generator installation.
- 2. Contact person for visit: Asst. Manager, Electrical Kulkarni A.R. (M.9326441162)
- 3. Bidder should complete the work as per Std rules and regulations.
- 4. The bidder should submit their bid on their letter heads in the prescribed format given in the bid documents.
- 5. The bidder should be O.E.M. or authorized dealer only.
- 6. The bidder should have completed minimum 2 sites of such type of installation with synchronizing system and should validate documents of supply,installation and commissioning work in last five years.
- 7. Technical offer and commercial offer should be submitted by bidder separately.
- 8. Bid must be accompanied by Earnest Money Deposit of Rs. 4,00,000/- in the form of RTGS in favor of Kolhapur Zilla Sahakari Dudh Utpadak Sangh Ltd. payable at Kolhapur. Tender without EMD will not be considered.( Bank details:Bank of Maharashtra ,IFSC Code: MAHB0001575, Account No. 60182028384)
- 9. The EMD amount of unsuccessful bidders will be returned. Successful bidder's EMD amount will be transferred to security deposit and it will be paid with final bill of work.
- 10. If the successful bidder fails to complete the work then the EMD amount will be forfeited.
- 11. The bidder has to furnish photocopy of PAN card & GST No.
- 12. Bidder should submit commercial offer with item wise rates & total amount of the work.
- 13. Bidder should provide two year comprehensive warranty with additional three year 5C extented warranty of the equipment's and system.( 5Cs are Cylinder block, Crank shaft ,Connection load, Cam shaft and Cylinder Head)
- 14. Safety precautions should be taken while doing the work. If any accident occurs to any worker, then the whole responsibility will be of successful Bidder. Also xerox copy of inusurance of the worker to be submitted before carry out the work.
- 15. All documents related to Generator Set to be submitted to Gokul. with applicable original copies.
- 16. All standard practices shall be followed for installation of D.G. Set,panel work,Cable/cable trench works ,Earthing etc.
- 17. Rates should include Freight ,loading,unloading, shifting any related work etc. and insurance till commissioning.
- 18. Any statutory work related to D.G. Set, if required, it will be done by the Successful bidder.
- 19. Contractor should arrange for material transport & safe storage of material.
- 20. .Work completion period 5 months Date of receipt of P.O.
- 21. Typical size of the sync panel should be approx.3000 (L)x1500(D)x2275(H) mm
- 22. Tender is to be submitted at our office at B-1, M.I.D.C., Gokul Shirgaon, Kolhapur on or before

#### dt:18.03.2025

23. Before submission of tender, site visit is mandatory. The bid without site visit, report will not be considered.

#### 24. Payment Terms:

- a) 30% payment will be given as advance after receipt of order acceptance against bank guarantee of same amount of nationalized bank only.
- b) 40 % payment will be released along with GST against D.G. Set receipt at site after inspection.
- c) 20% payment will be released against satisfactory installation of D.G.Set , synchronizing panel commissioning.
- d) 10% payment will be released against performance bank guarantee of nationalized bank valid for one year from date of satisfactory commissioning of the system.
- 25. **Penalty:** If the bidder fails to complete the supply/complete the work within the period prescribed, the Managing Director, Kolhapur Zilla Sahakari Dudh Utpadak Sangh Ltd., shall be entitled, at his option, to recover from the bidder, as penalty a sum equivalent to 0.25% of the total cost for delay of each week or part thereof during which supply/installation is delayed, subject to the maximum of 2.5% of the tendered cost of the contract.
- 26. If any extra material required to complete this work and it is not considered in this tender, then bidder should study and consider in this tender. After issuing of work order ,no any extra cost will be paid to bidder.
- 27. We reserve right to accept or reject any bid without assigning any reason.
- 28. For any dispute regarding this work, decision of the Dudh sangh Chairman will be final.
- 29. Subject to Kolhapur Jurisdiction.
- 30. Successful bidder should call our technical team for the stage inspection of the synchronizing panel & before starting the panel work bidder should get the panel sizes approved by Gokul.

Managing Director

#### KOLHAPUR ZILLA SAHAKARI DUDH UTPADAK SANGH LTD. KOLHAPUR

#### Scope of work:

#### A) Bidders Scope:

- 1. Supply of new 2000 KVA **Cummins-Powerica/Cummins Sudhir/Cummins Jackson** make Diesel Generator set,with synchronizing panel , fabricated Chimney,required cable trey's ,Installation, Testing & commissioning with material as per tender .
  - 2. Reloading unloading & shifting as per site conditions.
  - 3. Completion of all liasoning work if required & submission of required documents to Gokul.
  - 4. Installation of suitable type and suitable capacity pipe in pipe type as per IE Rule, number of earthing pits required for D.G set and control panel & its electronic equipment's.
  - 5. Required permission & Completion of Electrical inspection work from Govt. authority.
  - 6. Arrangement of labor, safety equipment's, tools & tackles, etc.
  - 7. Vehicle arrangement for Govt. Authority if required.
  - 8. The work /item which is not mentioned in the tender and if it is mandatory for the functioning of the system then that work/ item should be done by Bidder without any extra cost.
  - 9.The successful bidder must give satisfactory synchronizing trials of new 2000KVA & old 1000KVA D.G.Set on full load.
  - 10. Successful bidder must submit the civil drawing for D.G. & chimney within 15 days from the receipt of order.

#### B) Gokul Scope:

- 1. Signing of any required papers if required.
- 2. Temporary power supply for erection/welding work.
- 3. Civil foundation for D.G. Set & for Chimney will be in Gokul Scope .Necessary foundation civil drawings should be submitted by Bidder.

# KOLHAPUR ZILLA SAHKARI DUDH UTP SANGH LTD, KOLHAPUR ANNEXURE-I

Technical specifications for 2000 KVA/1600 KW, Cummins-Powerica/Cummins Sudhir/Cummins Jackson make Diesel Generator set, at B-1 M.I.D.C. Gokulshirgaon, Tal. Karveer, Dist. Kolhapur.

#### **Detailed specifications:**

2000 KVA / 1600 KW Diesel Generating Set with CPCB approved acoustic enclosure comprising of :"Cummins Powerica" make ,Model KTA 50 G21, Radiator Cooled, Diesel engine developing 2334 BHP at 1500 RPM, complete with standard accessories.

Coupled to "Stamford" Alternator rated at 2000 KVA / 1600 KW at 415 Volts, mounted on Channel Iron Base Frame Complete with Fuel Tank of 990 Ltrs. Capacity & 12 volt suitable capacity Batteries, Without Manual Control ACB Panel, with cable termination box & Busbars Genset Control Model: PC 3.3 Suitable for synchronization with exsiting 1010 KVA D.G. Set (Cummins make)

Model	C2000D5P
Prime power rating KVA	2000
Output Voltage and Frequency	415 Volts, 50Hz
Power Factor	0.8(lag)
No. Of Phases	3 Phase
<b>Engine specifications:</b>	
Make	Cummins
Model	KTA50-G21
No.of cylinders	16 'Vee'
Aspiration	Turbo charged – After cooled
Bore & Stroke	159mm x 159mm
Displacement	50.3 ltrs.
Output – prime	2334bhp (1741 KWm)
Fuel consumption @ 75% load	308 ltr/hr
Fuel consumption @ 100% load	411 ltr/hr
Total wet weight (engine + radiator)	7967Kg.
Length x Width x Height (engine)	2772 x 1684 x 1800mm
Compression Ratio	14.7:1
Piston speed	7.95mis
Governor /Class	Electronic / A1
Lubricating oil system capacity	177 ltrs.
Coolant capacity (engine + radiator)	530 ltrs.
Combustion air intake @ 100% load	129m'/min
(+/-5%)	
Fan air flow accros radiator	32191 ltrs/sec
Exhaust Temperature	487°C
Alternator Specification:	
Make	Stamford
Frame size / Model no.	S7L1D-G4
Voltage regulation	0.50%
Insulation	H Class
Standard Enclosure	IP 23
Winding Pitch	2/3 Pitch

Stator Winding	Double layer lap
Rotor	Dynamically Balanced with grade 2.5
Wave form distortion	No load < 1.5 %, Non distorting balanced
	linear load < 5 %
Telephone interference	THF < 2%
Telephonic Harmonic factor	Better than 2%

# KOLHAPUR ZILLA SAHKARI DUDH UTP SANGH LTD, KOLHAPUR

# **ANNEXURE - II**

# Technical scope of work for new 2000 KVA Diesel Generator Set

Sr. No	Material Description
1	Unloading of DG set on Ready Foundation (For installation of exposed to atmosphere on Ground Level). Civil foundation work is in Gokul scope prior to submission of foundation drawing by bidder.
2	Exhaust Piping
2.1	Supply of suitable Bends/Elbows, flanges, nuts & Bolts and gaskets, complete with fabrication as required for Exhaust Line excluding M.S. Support & Insulation.
2.2	Insulation of exhaust pipe 14" dia with Rock wool / Glass wool chicken mesh & covered with Aluminum sheet cladding.
2.3	Supply of 20" Diameter M.S. 'B' Class pipe including suitable Bends/Elbows, flanges, nuts & Bolts and gaskets, complete with fabrication as required for Exhaust Line.
2.4	Insulation of exhaust pipe 20" dia with Rock wool / Glass wool chicken mesh & covered with Aluminum sheet cladding.
2.5	Insulation of silencer with Rock wool / Glass wool chicken mesh & covered with Aluminum sheet cladding
2.6	Supply of Suitable Generator Control panel, G.I. Cable tray's, Battery & Fuel Tank etc. complete with cutting, grinding, fabrication & Welding work with applying 1 coat of Red Oxide Primer & 2 Coat's of synthetic enamel paint.
3	Fuel Piping
2.4	Supply of 50 mm Diameter M.S. 'B'Class (5MM Wall Thickness) pipe including Bends/Elbows, flanges, nuts & Bolts and gaskets complete with fabrications required for Fuel line.
3.1	Supply of Ball valves and other hardware's.
4	Cabling
4.1	Supply of 3.5/4C, 400 Sq.mm x 7 runs Al armored PVC/XLPE Polycab make cable as per full load current capacity of D.G. Alternator & laying & fixing in the Cable trench/Wall/ Surface with required material.  (Assuming distance between proposed D.G. Set and panel is Approx.20 meter)
4.2	Making required Cable End terminations for 3.5 C/4C, 400 sq. mm PVC Al Armored cable including supply of suitable Glands & Al lugs.
4.3	Supply of 12 Core X 2.5 Sq.mm Polycab make suitable control cable (Required for AMF panel)
4.4	Supply of suitable 3 Core X 1.5 Sq.mm Polycab make control cable (Required for Battery Charger, acoustic light, emergency stop etc.)
5	Earthing
5.1	Required suitable Pipe in Pipe type Earthing stations with Earthing chambers as per IE rule <b>for Generator set BODY &amp; NEUTRAL</b> .
5.2	Supply/Laying/Connecting suitable GI Earthing Strip Size 50mm X 6mm x 3runs for Generator set body & Neutral . (Assuming distance- Approx.10 meter)
6	Statutory Approvals & registration from Electrical Inspector (Required Govt. Fees will be paid by Gokul after submitting the quotation/receipt of Govt. Authority by bidder.)
7	Skad Stack analysis of exhaust stack, transportation, and crane charges for holding the stack.
8	Supply of suitable Aviation lamp, Lightening arrestor, ear thing with chamber , suitable required GI eathing strip etc.

# **Terms conditions**

Clauses	Description
Statutory norms	Bidders working teams should be covered under group Personal accident insurance & WC policies
Insurance	Insurance of machine and other parts if required is in Bidders scope
Construction Water & Electricity	Will be made available by Gokul.
Materials for Project	Storage space with lock & key facility & safe guarding shall be Bidders scope
Civil works	Any required Civil works –Like cable trenches, any types of breaking of construction, clearing of debris, shall be Bidders scope except foundation of D.G. Set. Foundation details to be submitted to Gokul in advance by Bidder.
Cables	Power & Control cables between DG Set Synchronizing panel and connecting to existing main panel with suitable links is Bidders scope. Required shut down for connections will be Gokul scope.
Commissioning & Load trials	Consumables for these activities like Diesel is provided by Gokul.
Incidental Expenses	Site specific incidental expenses if any to be paid by bidder for loading, Unloading & shifting etc.
Training	Powerica will give sufficient training to Gokul staff for operational & monitoring of D.G.
Defect Liability Period	12 Months from the date of commissioning of D.G .set.
Warranty Services	All warranty services for D.G. sets will be given by Cummins dealer as per Cummins Policy and synchronizing panel services will be given by Powerica/Sudhir/Jackson Ltd. although it is the responsibility of the bidder for 12 Months from the date of commissioning of D.G. set.
Commissioning of D.G. set	On completion of installation activities, arrangement of electrical load to take the necessary trials on D.G. sets is Gokul scope.

#### KOLHAPUR ZILLA SAHKARI DUDH UTP SANGH LTD, KOLHAPUR ANNEXURE - III

# BOQ FOR DG SYNC PANEL FOR 1NO.1010 KVA (EXISTING) CUMMINS DG SET WITH PC 3.3

CONTROLLER & 1NO.2000 KVA (PROPOSED) DG SET WITH PC 3.3 CONTROLLER

THE AUTO STARTING, SYNCHRONISING & LOAD SHARING OF DG SETS WILL BE PERFORMED THROUGH DG CONTROLLER – PC 3.3, PROVIDED ON CUMMINS DG SET WHICH INCLUS BUILT IN PROTECTION FOR U/V(27),O/V(59), U/F (81U), O/F (81O), RPR (32). LOSS OF EXCITATION (40) & O/C (51).

#### DG Sync Panel (As per IS standard comprising of followings; DESCRIPTION MAKE **TYPE** QTY. DG incoming switchgears:-1010 KVA DG set (Existing DG set) ACB 1600A 3Pole 50KA, EDO with Micro OMEGA processor based release for LSIG LK 1 **U-POWER** (MTX1.5) & Other accessories as below: Spring charging motor, closing coil &U/V release- 240VAC S/T release-24VDC 300A3PolePowerconatctor(AC-LK MNX 1 3duty),240VACcoilwith2NO+2NC Aux contact For Proposed 2000 KVA DG set. ACB 3200A 4Pole 50KA, EDO with Micro processor based release for LSIG **OMEGA** LK 1 (MTX1.5) & Other accessories as below: U-POWER Spring charging motor, closing coil &U/V release- 240VAC S/T release-24VDC Metering for DG incomer: Counter type KWH Meter, CTR-5A, CL-1 2 Elemeasure SMART 3E Electrical multifunction meter for Schneider EM6400NG+ 2 Voltage, Current, Power & Power factor measurement & display with RS 485 port, CL:1 Protection relay for DG incomer: Restricted earth fault relay (64R) CAG14 2 GET &D Earth Fault Relay (51N), common for CDG11 (Alstom) both DG set. **Current Transformer for DG incomer:** 1010 KVA I/C Metering (MFM) CTs-1600A/5A,15VA CL-3 1 (3 Nos CTs Per DG I/C.) REF CT1600A/1A,CL:PS (4 Nos CTs Per 4 DG I/C.) Reco/Powerp **BPLTapeWou** E/F CT 800/1A,5P10 (1No CT, common 1 ack

for both DG I/C.)

nd

2000 KVA I/C.	/Indcoil		
Metering (MFM ) CTs- 3200A/5A,15VA CL-1 (3 Nos CTs Per DG I/C.)			3
REF CT3200A/1A,CL:PS (4 Nos CTs Per DG I/C.)			4
Function for DG incomer :-			
Voltage sensing relay, 415VAC,3 Phase,3 Wire.	Minilec /L&T	S2 VMR3 / EQUV.	1
PLC System for load dependant start/stop operation for 1No. 1010KVA & 1No.2000KVA DG set	Allen Bradly /Schneider	-	1
Temperature Scaner 8 Channel for 2000 KVA DG Set.	Masibus	8208	1
Battery charger for DG incomer :			
SMPS based battery charger module, input: 240 V AC, output: 24V DC, 40A for 2000 KVA DG set	Micropower/U IP	SMPSbased	1
SMPS based battery charger module, input: 240 V AC, output: 24V DC, 20A for1010 KVA DG set.	Micropower/U IP	SMPSbased	1
DC Voltmeter (0-50VDC),size-96 sq mm flush mounting.	AE/Rishab	Analog	2
DC Ammeter( 0- 50 A with built in shunt.), size- 96 sq mm flush mounting.	h		2
Accessories :-			
Aux. Contactor	Schneider	As per Design	As per requirement
MCB	Schneider/ L&T	As per Design	As per requirement
Indicating lamps , Push buttons.	Teknic / L&T	As per Design	As per requirement
Control fuse.	Eaton / L&T	As per Design	As per requirement
Aluminum busbar :- 5000A Rating TPN (N=50% of phase),STC-50KA for 1sec, Design ambient temperature - 45°C	Reputed	EC Grade	Lot
Notes:-			

#### Notes:-

Panel should conforms to IP-4X (Indoor) enclosure and will be fabricated with CRCA sheet steel having:

- I)Thickness of component mounting plate & front door 2.0 mm,
- II) Thickness of back door / partitions -1.6 mm,
- III)Thickness of gland plate 3.0 mm.

The fabricated panel should be treated with 7 tank process & powder coated with Pebble grey paint shade (RAL 7032) in & out side. Base frame will be painted with black colour.

The panel will be suitable for I/C & common O/G Cable entry from Top.

Approx. Panel size should be suitable 3000 (L), 1500 (D), 2275 (H) mm.

#### Technical offer

The Managing Director, Kolhapur Zilla Sah.Dudh Utpadak Sangh Ltd. B-1, M.I.D.C., Gokul Shirgaon, Kolhapur - 416 234

Sub - Technical offer as per attcahed ANNEXURE – I, II & III for supply, installation, Testing & commissioning of 2000 KVA, Cummins-Powerica/Cummins Sudhir/Cummins Jackson make Diesel Generator set with synchronising panel at your Dairy premises A/P B-1, MIDC, Gokul shirgaon, Tal. Karveer, Dist. Kolhapur, as per tender.

Dear Sir,

With reference to the Tender Notice published in Daily on , I/ we submit the Technical offer as per Annexure – I, II & III with respect to above subject for work at your Dairy premises ,A/P B -1,MIDC,Gokul shirgaon,Tal. Karveer, Dist. Kolhapur..We also agree upon all Terms conditions, Technical specifications & scope of work.

Yours faithfully,

Seal & Signature of Tenderer

#### Encl -

- 1) RTGS receipt or EMD
- 2) Company Profile
- 3) Details of such type of work (min 2 sites) completed by contractor
- 4) Copy of valid Govt. contractor license
- 5) Site visit report

# **COMPANY PROFILE**

Name of the Tenderer	-	
Address	-	
Tel. Nos.	-	
web site	-	
E - mail	-	
GST Registration No.	-	
Name of Authorized Signatory	-	
Designation of the authorized Signatory	-	
License No.		

Seal & Signature of Tenderer

Details of such type of work (  $\min$  2 sites in last five years ) completed by contractor (Attach work orders of work completed at other sites )

Sr. No.	Name & place of Job	Cost of work

Seal & Signature of Tenderer

# Commercial offer

To,
The Managing Director
Kolhapur Zilla Sahakari Dudh Utpadak Sangh Ltd
B-1, M.I.D.C., Gokul Shirgaon,
Tal. Karveer, Dist. Kolhapur

# Sub - Commercial offer for Cummins-Powerica / Cummins Sudhir / Cummins Jackson make 2000 KVA/1600 KW, Diesel Generator set with synchronizing panel

Dear Sir,
In continuation to your Tender Notice in DailyDtDt
Our Total price for above work is Rs
(In words Rs)
This price is inclusive of GST & installation-commissioning charges)
Note - Detailed price break up of Total bid price is enclosed herewith.
Date :

Seal & Signature of Tenderer.