



PRE - QUALIFYING REQUIREMENTS

ENQUIRY NO:

PROJECT:

1 X 70 MW TANGEDCO KODAYAR HEP-RMU

PACKAGE:

RMU OF EOT CRANES

CRITERIA FOR EVALUATION - FINANCIAL :

	Amount (in Rs.)
Average annual financial turnover during the last Three Financial Years should not be less than RUPEES THIRTY FOUR LAKHS ONLY	34,00,000

Notes:-

a) The bidder has to submit financial accounts (audited, if applicable comprising of Audit report, Balance Sheet, Profit & Loss A/c Statement and Notes/Schedules pertaining to Turnover/Sales/Revenue), for last three years (or from the date of incorporation, whichever is less) as on tender due date to review the above criteria. In case the incorporation of vendor is less than 3 years, average annual financial turnover shall be calculated based on available information as below:-

i) If the accounts are available for ≤ 1 Financial Year, the Average Annual Turnover shall be calculated based on available information divided by 1 (One).

ii) If the accounts are available for >1 but ≤ 2 Financial Years, the Average Annual Turnover shall be calculated based on available information divided by 2 (Two).


iii) If the accounts are available for >2 but ≤ 3 Financial Years, the Average Annual Turnover shall be calculated based on available information divided by 3 (Three).

b) Foreign bidder is to submit a latest report from reputed third party business rating agency like Dun & Bradstreet, Credit reform etc. in addition to the documents mentioned at point (a) above for review of above criteria.

c) Other Income shall not be considered for arriving at Annual Turnover/Sales. For evaluation purpose, turnover figure excluding taxes shall be considered.

d) For evaluation of foreign bidder, exchange rate (TT selling rate of SBI) as on scheduled date of tender opening (Part-I bid in case of two part bid) shall be considered.

964217/2022/PS-PEM-MAX

	PROJECT: 1 X 70 MW TANGEDCO KODAYAR HEP- RMU PRE-QUALIFICATION REQUIREMENT RENOVATION WORK FOR DOUBLE GIRDER EOT CRANE-135/20T	DOC NO.: PE-PQ-470-501-A001	
		DATE	26.07.2022
		REV NO.	00

1.0	<p>Bidder should have designed, manufactured, tested (at shop / site), erected and commissioned (or supervised the erection & commissioning) of minimum one (1) no. Double Girder EOT crane.</p> <p style="text-align: center;">OR</p> <p>Bidder should have refurbished minimum one (1) no. Double Girder EOT crane. 'Refurbished' broadly means assessment of existing crane, replacement of components, testing and commissioning of Double Girder EOT crane.</p>
2.0	<p>The Bidder shall submit following supporting documents meeting above mentioned pre-qualifying requirements</p> <p>A copy of minimum one (1) no. performance certificate from end user for one (1) year of successful operation from date of commissioning OR one (1) no. Commissioning report with copy of the related Purchase Order (PO) or letter of intent (LOI) or letter of award (LOA) or work order (WO).</p>
3.0	<p>Bidder shall submit design documents to substantiate technical parameters specified in PQR, if the same is not mentioned in the Performance Certificate/Purchase Order (PO) or Letter of Intent (LOI) or Letter of Award (LOA) or Work Order (WO) / Commissioning Report/ Work Completion Report.</p>
4.0	<p>Bidder to submit all documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated copy should also be submitted.</p>
5.0	<p>Notwithstanding anything stated above, BHEL/ TANGEDCO (end customer) reserves the right to assess the capabilities and capacity of the bidder to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.</p>
6.0	<p>Consideration of offer may be subjected to end customer's approval of the bidder.</p>
7.0	<p>After satisfactory fulfilment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all the other terms of the tender.</p>
8.0	<p>The bidder should meet PQR based on its own credentials. Bid from joint venture (JV) company /Consortium bid is not acceptable.</p>

Land border sharing certificate

To,

M/s Bharat Heavy Electricals Ltd.,
Project Engineering Management,
Power Project Engineering Institute,
HRD & ESI Complex,
Plot No 25, Sector-16 A, Noida-201301

Dear Sir,

This has reference to:

1. Our offer for “**RENOVATION WORK FOR DOUBLE GIRDER EOT CRANE-135/20T**” as per Technical Specifications No. **PE-TS-470-501-A001, REV 00** for **RENOVATION, MODERNISATION & UPRATING OF KODAYAR POWER HOUSE-I FROM 1 x 60 MW TO 1 X70 MW** against BHEL Tender No.....
2. Order no. F.No. 6/18/2019-PPD dt. 23.07.2020 issued by Ministry of Finance, Department of Expenditure Public Procurement Division.

I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India; I certify that M/s (Company Name _____) is not from such a country,

or,

if from such a country, has been registered with the competent authority. (Strike through if not applicable)

I hereby certify that M/s (Company Name _____) fulfil all requirements in this regard and is eligible to be considered for procurement on GeM.

[where applicable, evidence of valid registration by the competent authority shall be attached]

Thanking You,
Yours faithfully,

Director/Proprietor/Partner
M/s _____

LOCAL CONTENT CERTIFICATE

To,

Bharat Heavy Electricals Limited
PEM, PPEI Building, Plot No 25,
Sector 17 A, Noida (U.P)-201301

Subject: - Certification regarding local content

Reference: Tender Enquiry No.:

Name of Package:

Project Name:

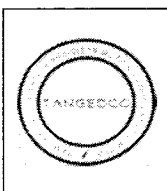
Dear Sir,

It is certified that items offered by M/s..... for “**RENOVATION WORK FOR DOUBLE GIRDER EOT CRANE-135/20T**” as per Technical Specifications No. **PE-TS-470-501-A001, REV 00 for RENOVATION, MODERNISATION & UPRATING OF KODAYAR POWER HOUSE-I FROM 1 x 60 MW TO 1 X70 MW** has local content of %

Further, it is also certified that the local content % certified above is in line with definition of local content given in Public Procurement (Preference to Make in India), Order 2017-revision, having ref no. P45021/2017/-PP (BE-II) dtd. 04.06.20 & 16.09.20 and M/s..... qualify as Class supplier.

It is further confirmed that address of the location at which the local value addition is made will be as follows:

Thanking You,
Yours faithfully,



**TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD
RENOVATION, MODERNISATION & UPRATING OF KODAYAR POWER
HOUSE-I FROM 1 x 60 MW TO 1 x 70 MW**

**TECHNICAL SPECIFICATION – VOLUME-III
ELECTRICS AND CONTROL & INSTRUMENTATION**

- vii) Flow sensor sizing calculation sheets
- viii) Instrumentation layout drawing showing location of sensors, transmitters etc. and route of cables from these up to the instrument panel in the control room.
- ix) Cable and pipe schedules with specification, Manufacturer's test, calibration and guarantee certificates for all the instruments
- x) Operation and maintenance manuals for each instrument
- xi) Quality assurance plan for each instrument
- xii) The quantity of drawings listed above and to be submitted by the successful tenderer shall be as per the general conditions of contract (GCC).
- xiii) List of 2 years spares for operation and maintenance as per manufacturer's recommendation and list of commissioning spares shall also be submitted.

06.00.00 MANDATORY OPERATION & MAINTENANCE SPARES LIST

Refer Annexure–II of Volume – I for List of Mandatory spares

07.00.00 COMMISSIONING SPARES

Commissioning spares shall be included in offer and the list shall be submitted alongwith tender . The commissioning spares shall be handed over to TANGEDCO after commissioning the offer shall be submitted alongwith tender offer indicating unit price.

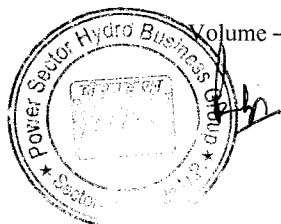
08.00.00 INSPECTION


For inspection of Instrumentation items procedure shall be governed as given in clause 'Inspection & Testing' of this Volume. However C&I PLC integrated FAT shall be inspected at manufacturer's works.

FAT of PLC and governing control system shall also to be conducted by the bidder at their works and arrangement for witnessing the test for Three (03) officials of TANGEDCO are also to be arranged by the Bidder free of cost.

09.00.00 LIST OF PREFERRED MAKES FOR PLC

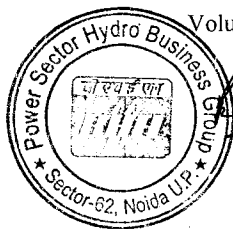
- PLC
- Rockwell Automation Control Logix L73 series
- GEIPL RX/3i Series
- Siemens S7-400H series
- ABB 800XA
- Schneider(Quantum) or latest series

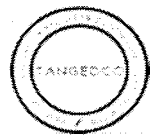


	TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD RENOVATION, MODERNISATION & UPRATING OF KODAYAR POWER HOUSE-I FROM 1 x 60 MW TO 1 x 70 MW
TECHNICAL SPECIFICATION – VOLUME-III ELECTRICS AND CONTROL & INSTRUMENTATION	

SECTION : B: 09.00.01 LIST OF PREFERRED MAKES (INDIGENOUS)

Sl.no.	ITEM DESCRIPTION	PREFRRED MAKES
A	Field Instruments:	
1.	Pressure / Differential Pressure gauge	WIKA, Ashcroft (Precision Industries), Forbes Marshall, Gauges Bourdon (GIC), A.N. Instruments, Baumer, Tiwac (Walchand nagar), Hirlekar (DP gauge) Manometer India
2.	Pressure / Differential Pressure switches	Ifm, WIKA, Switzer, Indfoss, Gauges Bourdon (GIC), Baumer, Ashcroft (Precision Industries), Orion (Kasturba)
3.	Pressure / Differential Pressure Transmitters	Emerson, Fuji (Chemtrols), Honeywell, Yokogawa, ABB Siemens
4.	Temperature gauges	WIKA, Ashcroft (Precision Industries), A.N. Instruments, General Instruments, Baumer Instruments, Tiwac (Walchandnagar), Manometer India,
5.	Thermocouple & RTD / thermowell	General Instruments, Toshiwal Industries, Tempsens, Pyro—electric Instruments, Industrial Instrumentation, Baumer.
6.	Temperature Switch	Ifm, Ashcroft (Precision Industries), WIKA, Manometer India, General Instruments, indfoss, Switzer
7.	Temperature transmitter	Emerson, Yokogawa, ABB, Honeywell, Fuji (Chemtrols), Siemens
8.	Rotameters	Krohne-Marshall, Instrumentation engineers, Trac, Chemtrols, Rota Instruments, Eureka Instruments
9.	Orifice Plate & flanges Assembly / Venturi, Flow nozzle	Engineering Specialties, Hydro-pneumatics, Micro-precision, Instrumentation ltd. Chemtrols-Samil, General Instruments, Unicontrols.
10.	DP type Flow / Level Transmitters	Emerson (Rosemount) Fuji (Chemtrols), Honeywell, Yokogawa, ABB, Siemens
11.	Flow Switch	Ifm, Krohne-Marshall, Magnetrol, D.K. Instruments, Switzer, Levcon.
12.	Electromagnetic flow meter	Yokogawa, Emerson, ABB, Siemens, Endress & Hauser, Krohne-marshall
13.	Vortex Flow meter	Emerson, Yokogawa, Krohne-Marshall, Honewell, Endress & Houser, ABB, Siemens
14.	Mass (Coriolis) flow meter	Emerson, Yokogawa, Krohne-Marshall, Honewell, Endress & Houser, ABB, Siemens

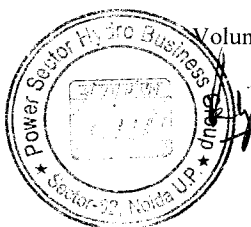


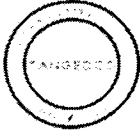


**TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD
RENOVATION, MODERNISATION & UPRATING OF KODAYAR POWER
HOUSE-I FROM 1 x 60 MW TO 1 x 70 MW**

**TECHNICAL SPECIFICATION – VOLUME-III
ELECTRICS AND CONTROL & INSTRUMENTATION**

15.	PD / Turbine Flow Meters	Daniel (Emerson), Bopp & Reuther, smith, Liquid Controls, Barton
16.	Level Gauge (magnetic & reflex type)	Chemtrol, Levcon Instruments, Patrolina Instruments, Forbes Marshall, Magnetrol, Baumer, Techtrol, Sigma, Asian Industrial Valves & Instruments.
17.	Level switch (Conductivity type)	Endress & Hauser, vega (WIKA), Switzer Instruments, SB Electro-mechanical, Techtrol, Level-Tech, Nivo Controls
18.	Level switch (Capacitance/RF type)	Endress & Hauser, WIKA (Vega), K-TEK, Switzer Instruments, SB, Electro-mechanical, Techtrol, Siemens, Nivo Controls
19.	Level Switch (Tuning fork / Rod type)	Vega (WIKA), Endress & Hauser, SB Electro-mechanical, K-TEK, Siemens
20.	Level Switch (Float type)	D K Instruments, Trac, Chemtrols, Levcon Instruments, Forbes Marshall, Emerson, Techtrol
21.	Level Switch / Transmitter (Displacer type)	Emerson, Eckard (Chemtrols), Trac, D K Instruments, Levcon Instruments
22.	Level Switch / Transmitter (ultrasonic type)	Vega (WIKA), Endress & Hauser, Siemens (Miltronics), Krohne Marshall, Magnetrol
23.	Level Switch / Transmitter Radar type)	Vega (WIKA), Endress & Hauser, Emerson (Rosemount), Siemens, Krohne- Marshall
24.	Level Switch / Transmitter (Nucleonic type)	Dr. Berthold (Concord International), Emerson (Kay Ray), E+H, ECIL, OHMART-Vega
25.	Level Switch (Electro-mech type)	Endress & Hauser, SB Electro-mechanicals, Nivo Controls, D.K. Instruments, TRAC
26.	Control Valve (Globe / Ball)	Fisher-Xomox, Instrumentation Ltd, Masoneilan (Dresser Industries), Flowserve (Valtek), Samson Controls, Arca (Forbes Marshall), MIL Controls, Dembla, Introl (RK Controls), Metso
27.	Control Valve (Butterfly)	Fisher-Xomox, Instrumentation Ltd, Flowserve (Valtek), Masoneilan (Dresser Industries), Dembla, Fouress, Tyco Valves (Keystone-Butterfly, Metso
28.	Electrical Actuator	Limitorque, Rotork, Bernard (Instrumentation Ltd), Honeywell, March, Auma, Keystone, Metso
29.	Pneumatic Actuator	Fisher-Xomox, Instrumentation Ltd, Mesoneilan (Dresser Industries), MIL Controls, Flowserve (Valtek), Samson Controls, ABB, Arca (Forbes Marshall),

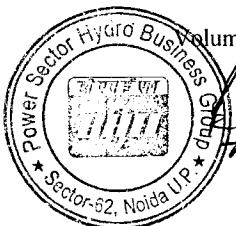


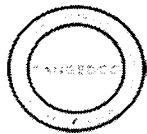


**TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD
RENOVATION, MODERNISATION & UPRATING OF KODAYAR POWER
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**TECHNICAL SPECIFICATION – VOLUME-III
ELECTRICS AND CONTROL & INSTRUMENTATION**

		Keystone, Virgo, Habonim Vaas, SMC Pneumatics, Metso
30.	Self-regulating pressure control valve	Fisher-Xomox, Forbes Marshall, Samson Controls, Flowserve (Valtek) Instrumentation Limited, Nirmal Industries
31.	I/P Converters	Fisher-Xomox, Shreyas-Barton, Masoneilan (Dresser Industries, Moore (Forbes Marshall), Marsh-Ballofram, ABB, MIL Controls, Watson Smith.
32.	Pneumatic Positioner,	Fisher-Xomox, Masoneilan (Dresser Industries) Arca (Forbes Marshall), Flowserve (Valtek), Instrumentation Ltd., Samson Controls ABB MIL Controls, Fouress
33.	Electro-pneumatic positioner	Fisher-Xomox, Instrumentation Ltd., Masoneilan (Dresser Industries), Siemens, Samson Controls, Arca (Forbes marshall), ABB, MIL Controls, Fouress, Metso
34.	Solenoid Valve	Herion, Burkert, Scharader-Schovill, Jucomatic, Rotex, Asco
35.	Air filter regulator	Shavo-Norgren, Marshal-Bellofram, Packa, Schrader-Schovill
36.	Compression fittings & valves	Swaglock, Parker, Excel-Hydro-pneumatics Hylok
37.	SS Tubes	Choksi Tubes, Sandvik, Mahalakhsmi
B	Control Room Instrumentation	
38.	Digital Indicator	Pyrotech Electronics, Lectrotek, Chino, Micro Systems, Master electronics, Masibus Instruments, Ranutrol, Honeywell, PEPL, Siemens
39.	Bar-graph Indicator	Chino, Masibus Instruments, Pyrotech Electronics, Lectrotek, Teleltherm, Ranutrol, PEPL, Microsystems, Siemens
40.	Recorders (Chart Less)	Eurotherm, Yokogawa, Chino, Honeywell, Siemens, ABB
41.	Microprocessor based Controller	Yokogawa, Siemens, Honeywell, Eurotherm, Fuji, ABB, Toshiba
42.	Digital Scanners	Lectrotek, Micro systems, MaSTER Electronics, Masibus Instruments, MB Controls, Procon, PEPL
43.	DC Power Supply Unit	Aplab, Phoenix, Elnova, Siemens, Schneider, Pepperl & Fuchs, MTL, Cosel
44.	IS Interface / Zenner Barrier	Pepperl & Fuchs, MTL, Stahl
45.	Signal isolators	Pepperl & Fuchs, MTL, Stahl, Yokogawa, Protech (Forbes Marshall), Phoenix
46.	Annunciation system	IIC, Procon, Micro Systems & Controls,





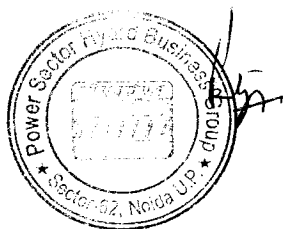
**TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD
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**TECHNICAL SPECIFICATION – VOLUME-III
ELECTRICS AND CONTROL & INSTRUMENTATION**

		Minilec, Instrumentation Ltd, Lectrotek, Piri systems, Pyrotech Electronics, MB Controls & Systems, Semuda.
47.	Instrument Panels / Control Desk	Rittal, Pyrotech, Instrumentation Ltd. Hoffman
48.	Instrumentation Cable (Screened, Paired, triad etc.)	Delton, Universal Cables, Thermopads, KEI industries, Paramount cables, Lapp cables, Cords cables, MEM, Uniflex cables, Brooks Cables, Elkay Telelinks, TCL Cables, Finolex, Toshniwal, Udey Pyro-Cables, Fort Gloster, Polycab
49.	Thermocouple Compensating Cable	Toshniwal Cables, general Instruments, Udey Pyro-cables, Paramount Cables, Delton, Cords Cables, MEM, Brooks, Lapp Cables, Elkay Telelinks, TCL Cables, Thermopads,
50.	Vibration sensors & monitors	Bentley Nevada, IRD (Mechanalysis India), Bruel & Kjaer, Schenck-Avery, SPM Instruments, SKF, Shinkawa (Forbes-Marshall)
51.	Positive Displacement meter	Bopp & Reuther (Toshbro), (Forbes Marshall) Liquid Controls, Emerson.
52.	Averaging Pitot Tube	Emerson, Forbes Marshall, Switzer Instruments, General Instruments

Note :

For those equipments/ instruments whose make are not indicated in specification, prior approval of Purchaser/TANGEDCO shall be obtained.



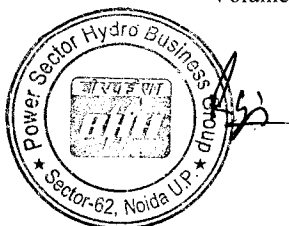


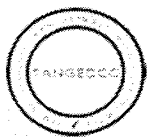
**TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD
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**TECHNICAL SPECIFICATION – VOLUME-III
ELECTRICS AND CONTROL & INSTRUMENTATION**

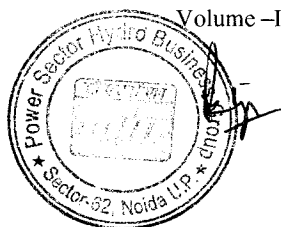
**06. LIST OF PREFERRED MAKES
TRANSFORMERS**

GENERATOR TRANSFORMER	CGL/BHEL /KEC / TR / EMCO / ALSTOM
LT Transformer	BHEL/CGL/GEC ALSTHOM/ VOLTAMP/EMCO
110 kV ISOLATOR	S&S, ELPRO INTERNATIONAL, HIVELM, GR POWER, Hyderabad
110kV CURRENT TRANSFORMER	AE / ABB / AREVA / CGLI / GEC
110kV POTENTIAL TRANSFORMER	AE / ABB / AREVA / CGLI / GEC
110 kV LIGHTNING ARRESTOR	ELPRO INTERNATIONAL LIMITED / W.S INDUSTRIES LTD / OBLUM INDUSTRIES LTD
HV BUSDUCT	ECC (KOLKATA)/ STAR DRIVE NOW KGS ENGINEERING LIMITED(CHENNAI)/ ENPRO (CHENNAI)/ BEST & CROMPTON/ SIEMENS/ BHEL/ CONTROL & SWITCHGEAR
11kV /LT CURRENT TRANSFORMER	AE /ABB/ JYOTI / KAPPA / WSI/INDCOIL
11kV POTENTIAL TRANSFORMER	AE /ABB/ JYOTI / KAPPA / WSI / INDCOIL
415V SWITCHGEAR	LARSEN &TOUBRO LTD (ECC GROUP) / SIEMENS LTD / ASIA BROWN BOVERI LTD /GEC (ALSTHOM)
MOTOR CONTROL CENTRES	SIEMENS LTD / ASIA BROWN BOVERI LTD /KIRLOSKAR ELECTRIC COMPANY LTD / GEC ALSTHOM INDIA LTD
LT AIR CIRCUIT BREAKER,	SIEMENS/ BCH/GE(ALSTHOM)/ L&T/ C&S/ SCHNEIDER
UPS	SIEMENS / HIREL / EMERSON/GE / DB POWER CONTROL



	TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD RENOVATION, MODERNISATION & UPRATING OF KODAYAR POWER HOUSE-I FROM 1 x 60 MW TO 1 x 70 MW TECHNICAL SPECIFICATION – VOLUME-III ELECTRICS AND CONTROL & INSTRUMENTATION
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SOLID STATE ANNUNCIATOR	APLAB/ L&T/ ELECMECH/PROCON/ MINILEC/ CONTROL-AND DYNAMICS
NUMERICAL PROTECTION RELAYS	SIEMENS/ ABB/ AREVA FOR LT SYSTE SCHNEIDER/ L&T(MM30)/ ASIDA
NUMERICAL PROTECTION RELAYS	AREVA / SIEMENS / ABB / L&T FOR HT SYSTEM
AUXILIARY RELAYS	AREVA/ EASUN/ ABB/ L&T/ GE/ SCHNEIDER/ SIEMENS/ BCH/ ROCKWELL
AMMETER/ VOLTMETER	AEP/ IMP/ MECO AE/GEC// L&T WATTMETER/ VAR-METER
VOLTAGE/ POWER/ CURRENT TRANSDUCER	/ABB/AEP/ EMENS/FREQUENCY/ENERGY ELSTER / ADEPT
MOULDED CASE CKT BREAKER	SIEMENS/ GE POWER/ L&T/ABB/ SCHNEIDER/ BCH/ ANDE-RW YULE
INDICATING LAMP LED TYPE) BINAY/ J-AUER	SIEMENS/ VAISHNO/ TECHNIK/LUSTER
HOOTER/ BUZZER/ BELL	GETCO/ KHERAJ/ EDISON/KAKKU
HT CABLES	RPG/ CABLE CORPORATION OF INDIA LTD/ FORT GLOSTER INDUSTRIES (T) HOWRAH / ASIAN CABLES & INDUSTRIES LTD
LT CABLES	RPG/ CABLE CORPORATION OF INDIA LTD/ FORT GLOSTER INDUSTRIES (T) HOWRAH / ASIAN CABLES & INDUSTRIES LTD
CONTROL CABLE	RPG/ CABLE CORPORATION OF INDIA LTD/ FORT GLOSTER INDUSTRIES (T) HOWRAH / ASIAN CABLES & INDUSTRIES LTD
LOCAL PUSH BUTTON STATIONS	SIEMENS/ L&T/ BCH/ BHEL/ C&S/ TECHNOCRAT/ B&C/ MEDITRON/ ELECTRO FABRIC/ HCE/ SEN & SINGH





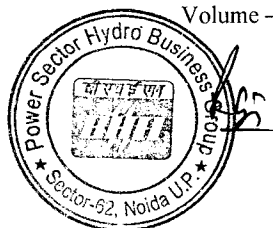
**TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD
RENOVATION, MODERNISATION & UPRATING OF KODAYAR POWER
HOUSE-I FROM 1 x 60 MW TO 1 x 70 MW**

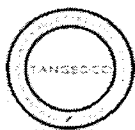
**TECHNICAL SPECIFICATION – VOLUME-III
ELECTRICS AND CONTROL & INSTRUMENTATION**

	/TECHNO COMMERCE/ SWITCHING CIRCUIT/ VIJAY SWITCHGEAR
LIGHTING FITTINGS	PHILIPS/GE/ BAJAJ/(SV/MV/MH/FLUROESCENT/CFL) CGL/ WIPRO/ FLOROCRAFT
HT CABLE JOINTING KITS & TERMINATION KITS	RAYCHEM/ 3M/ DENSONS// M – SEAL
CONTACTORS	SIEMENS / ALSTHOM / L&T / CGL / SCHINDIR/BCH/ABB
HT HRC FUSES TEMPERATURE SCANNER	AREVA/ DP/ S&S/ COPPER- BUSSMAN JYOTI / APLAB/SYNTECH / MASIBUS
MCCB	SCHNEIDER (MG)/ L&T/ ABB/SIEMENS/ GE POWER CONTROL / CONTROL & SWITCHGEAR/ BCH /MDS(LEGRAND
MINIATURE CIRCUIT BREAKER	SIEMENS/ L&T/ GE POWER CONTROL/SCHNEIDER (PROTEC / MG)/ STANDARD/INDOASIAN/ HAVELLS/ MDS (LEGRAND)/ ABB
MOTORS	SIEMENS LTD / ASIA BROWN BOVERI LTD / KIRLOSKAR ELECTRIC COMPANY LTD / GEC ALSTHOM INDIA LTD
TERMINAL BLOCK	EPCC/ ELMEX/ PHOENIX CONTACT/ CONNECT WELL/ ESSEN DEINKI/ WAGO/LAPP/ S&S/ HANSEL
MIMIC PANELS & ANNUNCIATION PANELS	L&T / ADVANI OERLIKON / GE POWER CONTROL/ BHEL/ BCH/ TRANSRECT/ MINLEC/ TIRUPATI ELECTRONICS/ ADVANCE POWER CONTOL/ CONTROL DEVICES
ACSR CONDUCTOR	APAR, MUMBAI, SMITA CONDUCTORS, DEEPAK CABLES, GUPTA CONDUCTORS, ALIND CORPORATION

07. LIST OF SPECIFICATION DRAWINGS

For specification drawings refer Volume IV.





**TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD
RENOVATION, MODERNISATION & UPRATING OF
KODAYAR POWER HOUSE-I FROM 1x60MW TO 1x70MW
TECHNICAL SPECIFICATION - VOL-II - MECHANICAL & CIVIL**

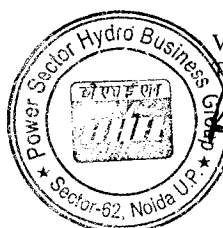
11. LIST OF PREFERRED MAKES

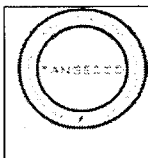
The Tenderer shall have to select any of the sub-vendors from the list of preferred makes only and no deviation to this effect will be entertained during the execution of the contract unless a specific approval has been obtained for by the Tenderer from the TANGEDCO/Purchaser.

Sl. No.	EQUIPMENT	Preferred Makes
1.	PUMPS	KI RLOSKAR/KSB/MATHER & PLATT/WPIL
2.	MOTORS	NGEF/BBUGEC/BHEUKEC/ JOYTI/ABB
3.	SOLENOID VALVE	ASCO(INDIA), SEITZ-ROTEX, SCADER DUNCAN
4.	INSTRUMENT CABLES	CABLE CORP., FINLOEX CABLES, TOSHNIWAL CABLES
5.	GATE, GLOBE, BALL VALVE	AUDCO, DEZURIC, TIFLIN, SAKHI INTERNATIONAL, BDK
6.	DUPLEX FILTER	OTOKLIN, SUPERFLO, FILTRATION ENGINEERS
7.	PRESSURE CONTROLLERS	SAIL, TISCO, AJANTA TUBE, MAN INDUSTRIES, MUKAND
8.	PLUG VALVES	AUDCO, DEZURIC, TUFLIN
10.	COMPRESSOR	ATLAS COPCO/ IR/ ELGI/ KPC

12. SALIENT FEATURES

Sl.No.	SALIENT FEATURES		
1.	Name of the Dam/Weir	Kodayar Dam - I	Kodayar Dam - II
2.	Location	K.K.District	K.K.District
3.	River	Kodayar	Kodayar
4.	Purpose	Fore Bay Dam	Fore Bay Dam
5.	Catchment Area	29.12 Sq.km	29.01 Sq.km
6.	Type of Dam/Weir	Masonry Gravity	Masonry Gravity
7.	Height	87.78 m	61.00 m
8.	Length	166.0 m	152.40 m
9.	Length of Earthen Dam		
	Left Flank		
10.	Right Flank		
11.	Reservoir F.R.L.	1325.90 m	350.52 m
12.	Reservoir M.W.L	1325.90 m	350.52 m
13.	Reservoir M.D.D.L.	1295.40 m	318.82 m
14.	Reservoir Capacity at	3.0 Mcft.	3.23 Mcft.





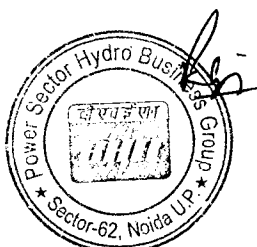
**TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD
RENOVATION, MODERNISATION & UPRATING OF KODAYAR
POWER HOUSE-I FROM 1 x 60 MW TO 1 X 70 MW
TENDER SPECIFICATION – VOLUME –I – NOTICE INVITING TENDER**



- 3.59.02 In respect of 'Equipment' to be supplied and the 'work' to be executed under the 'Contract' all accessories/works which are necessary for the satisfactory and efficient operation of the plant should be supplied at free of cost whether they are specifically mentioned or not in the Bid Document or Purchase Order/ Works Contract .
- 3.59.03 The several documents forming the 'Contract' are to be taken as mutually explanatory of one another but in case of ambiguities or discrepancies, the same shall be explained and adjusted by TANGEDCO, who shall there upon issue to the Vendor/Contractor instructions directing in what manner the 'Works' are to be carried out Decision of TANGEDCO shall be binding on the contractor.
- 3.59.04 In the normal circumstances, all the clauses in the detailed works contract order shall be operative.
- 3.59.05 However, it is agreed that, when a dispute or contradiction arises in invocation of a particular clause of detailed works contract order, the subject matter shall be discussed extensively taking into consideration the specification, corrigendums, pre-bid discussions, post bid discussions, negotiation & other correspondences, to arrive at an appropriate decision and shall not cite that the compliance of terms of works contract order alone shall only be applicable.
- 3.59.06 Any disputes or differences including those considered as such by only one of the parties arising out of or in connection with the 'Contract' shall be to the extent possible, settled amicably between the parties.
- 3.59.07 If amicable settlement cannot be reached, then all disputed issues shall be settled by legal proceedings as provided in Legal Proceedings Clause.

3.60 SUB-CONTRACTS

- 3.60.01 All the works/supply are to be carried out only by the contractor directly. The contractor can utilize the services of sub contractors for assisting the above works.
- 3.60.02 The Contractor shall be responsible for transmitting all the pertinent data of all Contract terms and conditions with his Sub-Contractors / Sub-suppliers. The Contractor shall also furnish the specification, place of manufacture, delivery schedule and adequate priced copies of supply orders/contract he has entered into in respect of imported items and adequate copies of unpriced supply order/contract in the case of indigenous items.



- 3.60.03 TANGEDCO shall give approval or shall refuse approval in writing on receipt of request along with all supporting details.
- 3.60.04 Bought-out items, critical components, proprietary items and equipment manufactured and supplied by specialized manufacturers which the Contractor intends to incorporate in the Contract Work shall also come within the purview of the provision under this contract.
- 3.60.05 The approval extended by TANGEDCO in selecting Sub-Contractors recommended by the Contractor shall not discharge the later from his Contract obligations. The Contractor shall remain solely liable for any action, deficiency, and/or negligence on the part of his Sub-Contractors/sub-suppliers.
- 3.60.06 The Contractor shall submit to TANGEDCO unpriced copies of Purchase Order/ Works Contracts with technical specifications included in all orders placed on Sub Contractors/Sub-Suppliers as soon as the respective orders have been placed by the Contractor.
- 3.60.07 In the event certain obligations extended by a Sub-Contractor to the Contractor should extend beyond the guarantee period specified in the Contract, TANGEDCO shall automatically be entitled to the benefit thereof.
- 3.60.08 In no event shall TANGEDCO be deemed to have any Contractual obligations whatsoever in respect of Contractor's/ Sub-Contractors and/or title-holders of any sub-orders placed by the Contractor.
- 3.61 PARTICIPATION OF INDIAN ENGINEERS**
The contractor shall associate TANGEDCO's Engineers in the Design & Design Modification work being carried out abroad or in India.
- 3.62 WAIVER**
- 3.62.01 Non-enforcement by either party of any of the provisions of this Contract shall not operate or constitute as a waiver of the provision itself or any subsequent breach thereof.
- 3.62.02 The validity of the Contract shall not be affected, should one or more of its stipulations be or become legally invalid and such stipulation is severable from and not fundamental to the obligations of either party to this Contract. In such a case, the parties shall negotiate in good faith to replace the invalid clause by an agreed stipulation which is in accordance with the applicable law and which shall be as close as possible to the parties original intent.

