

AMENDED UPTO JAN-2008

CPWD-7/8

GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT

STATE Delhi

CIRCLE

BRANCH Engg.

DIVISION Engg.

ZONE

SUB DIVISION Electrical

Percentage Rate Tender/Item Rate Tender & Contract for Works

(A)Tender for the work of: Operation, Maintenance and repairs of AC Plants in
Pragati Maidan New Delhi in year 2009-10

(Sub-Head- Operation, routine maintenance and repair etc.)

(i)To be submitted __15.00__ hours on __24.04.2009__ to
(time) (date)

(ii)To be opened in presence of tenders who may be present at __1530__ hours on __24.04.2009__
in the office of __Sr. Manager (Elect.) Room No. 147

Issued to: _____
(contractor)

Signature of officer issuing the documents

Designation

Date of issue:

TENDER

I/We have read and examined the notice inviting tender, schedule, A, B, C, D, E & F, Specifications applicable, drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule – 1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect in accordance with, such conditions so far as applicable.

We agree to keep the tender open for sixty (60) days from the due date of its opening and not to make any modifications in its terms and conditions.

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CPWD

A sum of Rs 24,870.00 has been deposited in cash/receipt treasury challan/ DD in the favour of ITPO /deposit at call receipt of a scheduled bank/fixed deposit receipt of scheduled bank/demand draft of a scheduled bank/bank guarantee issued by a scheduled bank as earnest money. If I/we, fail to furnish the prescribed performance guarantee within prescribed period, I/we agree that the said President of India or his successors in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/we fail to commence work as specified, I/we agree that President of India or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, upto maximum of the percentage mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. Further, I/We agree that in case of forfeiture of earnest money or both Earnest Money & Performance Guarantee as aforesaid, I/We shall be debarred for participation in the retendering process of the work.

I/We hereby declare that I/we shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall no communicate information/derived there from to any person other than a person to whom I/we am/are authorised to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated.....

Signatures of Contractor
Postal Address

Witness:

Address:

Occupation:

Tender-% notice

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the President of India for a sum of Rs..... (Rupees.....)

The letters referred to below shall form part of this contract Agreement:-

- (i)Corrigendum I & II
(ii)NIT
(iii)Schedule of work
(iv)Additional condition
(v)Wages
(vi)Agreement copy

For & on behalf of President of India Signature.....

Dated.....
Designation.....

CPWD

SCHEDULES -

SCHEDULE 'A'

Schedule of quantities (Enclosed) ----- As enclosed -----

SCHEDULE 'B'

Schedule of materials to be issued to the contractor._____ N/A -----

S.No. Description of item Quantity Rates in figures & words at which The material will be charged to the Contractor Place of issue

Table with 5 columns: 1, 2, 3, 4, 5. Row 1: 1, 2, 3, 4, 5. Row 2: N / A

SCHEDULE 'C'

Tools and plants to be hired to the contractor

Tender-% notice

Sl.No.	Description	Hire charges per day	Place of issue
1.	2.	3	4
		N /	A

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SCHEDULE 'D'

Extra schedule for specific requirements/documents for the work, if any.

----- N. A. -----

SCHEDULE 'E'

Schedule of component of Cement, Steel, other materials, Labour etc. for price escalation.

CLAUSE 10 CC

Component of Cement – expressed as percent of total value work.	X ...N/A...%
Component of Steel-expressed as percent of total work.	Xs.....N/A.....%
Component of civil (except cement & steel)/Electrical construction Materials-expressed as percent of total value of work.	N/A Xm.....% N/A
Component of labour-expressed as per cent of total value of work.	N/A Y.....%
Component of P.O.L. – expressed as percent of total value work.	Z...N/A.....%

SCHEDULE 'F'

Tender-% notice

Reference to General Conditions of contract.

(A) Name of work: ___ : Operation, Maintenance and repairs of AC Plants in Pragati Maidan New Delhi in year 2009-10
(Sub-Head- Operation, routine maintenance and repair etc.)

Estimated cost of work: Rs. ___ 12,43,345.00

(i) Earnest money: Rs. ___ 24,870.00 _____

(ii) Performance Guarantee 5% of tendered value

(iii) Security Deposit 5% of tendered value

CPWD

General Rules & Direction:

Officer inviting tender Sr. Manager(Elect.)

Maximum percentage for quantity of items of work to be executed beyond
Which rates are to be determined in accordance with Clauses 12.2 & 12.3 see below

Definitions

2(v) Engineer-in-Charge Sr. Manager(Elect.)

2(viii) Accepting Authority GM (Works.)

2(x) Percentage on cost of materials and Labour to cover all overheads and profits. 15%

2(xi) Standard Schedule of Rates Market rates /D.S.R. Rates _____

2(xii) Department _____ ITPO _____

9(ii) Standard CPWD contract Form upto 2008 _____ CPWD form 7/8 as modified & corrected

Clause 1

Tender-% notice

(i) Time allowed for submission of Performance Guarantee
From the date of issue of letter of acceptance ___ 15 ___ days

(ii) Maximum allowable extension beyond the period
(provided in i) above ___ 7 ___ days

Clause 2

Authority for fixing compensation under clause 2.

_____ GM(Engg.) _____

Clause 2A

Whether clause 2A shall applicable No

Clause 5

Number of days from the date of issue of letter

Acceptance for reckoning date of start _____ 7_ days

CPWD

Mile stone(s) as per table given below:
Table of Mile Stone(s)

Sl. No.	Description of Milestone(Physical)	Time allowed in days (from date of start)	Amount to be withheld in case of non achievement of milestone
1.	N. -----	-----	-----A.
2.	N. -----	-----	----- A.
3.	N. -----	-----	-----A.
4.	N. -----	-----	-----A.
5.	N. -----	-----	-----A.
6.	N.-----	-----	-----A.

Time allowed for execution of work one year

Authority to give fair and reasonable extension of time for completion of work GM(Engg.)

Clause 6, 6A

Clause applicable - (6)

Clause 7

Gross work to be done together with net payment/adjustment

.....
or advance for material collected, if any since the last such payment
for being eligible to interim paymentN / A

Clause 10A

List of testing equipment to be provided by the contractor at site lab.

1.....Megger 2..... Gas charging line and equipments

3...line tester 4 pressure and ref. gauges.....

5.....N. A..... 6..... N. A.

Clause 10 B(ii) No

Whether Clauses 10 B (ii) shall be applicable N / A

Clause 10CA

Materials covered under this clause Nearest Material for which All India Wholesale Price Index is to be

Followed

1. _____ N.A.

2. _____ N.A.

3. _____ N.A.

Clause 10CC

Clause 10CC to be applicable in contracts with stipulated period of Completion exceeding the period show in text column_____ - N / A --_

Clause 11

Specification to be followed for execution of work _____ as per _____ specification ____ CPWD

Clause 12

Deviation limit beyond which clauses 12.2 & 12.3 shall apply for work _____ 50% _____

Deviation limit beyond which clauses 12.2. & 12.3

Shall apply for foundation work _____ N/A

Clause 16

Competent Authority for deciding reduced rates.

_____ GM(Engg.) _____

Clause 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site:-

- | | |
|------------------------|-------------------|
| 1. ...dial gauge | 2...plier sets |
| 3... tool kit | 4.....spanner set |
| 5. ...screw driver set | 6.....N/A |

Clause 36(i)

S.N	Minimum qualification of Technical Representative	Discipline	Designation (Principal Technical/Technical representative)	Minimum experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i)
						Figures Words
1.	ITI	AC	AC Mech.	Min. 2 yr.	2 No.	
2.	Nil	Elect.	Khallas	Min. 2 yr.	3 No.	
3.	ITI	Elect.	Wire man	Min. 2 yr.	1 No.	
4.	ITI	AC	Operator	Min. 2 yr.	4 No.	

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.

CPWD

CLAUSE 42

(i)(a) Schedule/statement for determining theoretical quantity of cement & Bitumen on the basis of Delhi Schedule of Rates.....printed by C.P.W.D.

(ii) Variations permissible on theoretical quantities.

- | | |
|---|-------------------------|
| a) Cement for works with estimated cost put to plus/minus
Tender not more than Rs. 5 lakhs | 3% |
| For works with estimated cost put to tender plus/minus
More than 5 lakhs | 2% |
| b) Bitumen for all works
minus side | 2.5% plus only & nil on |
| c) Steel Reinforcement and structural steel
plus/minus
Sections for each diameter, section and category | 2% |
| d) All other materials | Nil |

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

S.No.	Description of Item	Rates in figures and words at which recovery shall be made from the contractor	
		Excess beyond permissible variation	Less use beyond the permissible variation
1.	Cement	N.A.	N.A.
2.	Steel reinforcement	N.A.	N.A.
3.	Structural Sections	N.A.	N.A.
4.	Bitumen issued free	N.A.	N.A.
5.	Bitumen issued at stipulated fixed price	N.A.	N.A.

India Trade Promotion Organization
(Electrical Unit)
Corrigendum to Form 7/8 (CPWD) must
be read along with the Pamphlet

S.No.	FOR	READ
1.	Govt. of India	India Trade Promotion Organisation (A Govt. of India Undertaking)
2.	CPWD of Government	India Trade Promotion Organisation
3.	CPWD – 7/8/9	ITPO – 7/8
4.	President/President of India	CMD, ITPO
5.	Chief – Engineer	General Manager (Works)
6.	Superintending Engineer	Deputy. General Manager (Civil)
7.	Engineer-in-charge/ Divisional Engineer/ Executive Engineer/ Divisional Office	Sr. Manager (Elect.)
8.	Sub-Divisional Officer/Asstt. Engineer	Deputy Manager (Elect.)
9.	C.T.E.	General Manager (Works)
10.	Admn. Head	C.M.D./General Manager
11.	Ministry of Works & Housing	ITPO/Ministry of Commerce
12.	CPWD Code, Paragraph'90	Shall be applicable to ITPO works.
13.	DSR-2007	Shall be applicable to ITPO works.
14.	CPWD specifications	Shall be applicable to ITPO works.
15.	DSR(Internal) 2007 for Electrical works.	Shall be applicable to ITPO works.
16.	CPWD specifications (Internal) 2005	Shall be applicable to ITPO works.

	Electrical works	
17.	DSR External 2007 for Electrical works and specification.	Shall be applicable to ITPO works.
18.	Provision of section 12 Subsection (i) of the works man compensation	Shall be applicable to ITPO works.
19.	Provision of contract labour (Regulation and abolition Act 1970 and contract labour (Regulation and abolition) control rules 1971 section 20 sub-section (A) of the contract labour (Regulation and abolition Act 1970).	Shall be applicable to ITPO works.
20.	Provision of the payment of wages Act, 1986 Minimum wages Act, 1986 1943 industrial disputes Act, 1947 Material benefits Act, 1961.	Shall be applicable to ITPO works.
21.	CPWD safety code framed from time to time.	Shall be applicable to ITPO works.
22.	CPWD maternity benefits to labour.	Shall be applicable to ITPO works.
23.	Provision of the Arbitration Act, 1972.	Shall be applicable to ITPO works.

24.	Section 74 of India Contract Act, 1973.	Shall be applicable to ITPO works.
25.	Model Rules of the protection health and sanitary appointment for workers employed by CPWD,	Shall be applicable to ITPO works.
26.	CPWD Contractor labour regulations.	Shall be applicable to ITPO works.

SR. MANAGER (Elect.)
I.T.P.O.

INDIA TRADE PROMOTION ORGANISATION

(Electrical Division)

No.

Dt:

C O R R I G E N D U M - I I

SUB: Introduction of Performance Guarantee &
Revision in Rate of Security Deposit

	Existing Provision		Revised Provision (to be applicable now)
a)	Performance Guarantee		
	NIL		The contractor shall be required to deposit an amount equal to 5% of the tendered value of the work as performance guarantee in the form of an irrevocable bank guarantee bond of any scheduled bank or state bank of India in accordance with the form prescribed or in cash or in the form Government Security, fixed deposit receipt etc. as in the case of recovery of security deposit within 15 days of the issue of letter of intent but before award of work. The period can be further extended by the Engineer-in-charge up to maximum period of 07 days on written request of the contractor.
b)	Security Deposit		

	10% of the tendered value of the work put to tender subject to maximum limit of Rs.5 lacs.		A sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum alongwith sum already deposited as earnest money will amount to security deposit of 5% of the tendered value of the work.. (Bank Guarantee is not to be accepted as security deposit).
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SR. MANAGER(Elect.)
India Trade Promotion Organisation
Pragati Bhawan, Pragati Maidan
New Delhi - 110001

No.166-ITPO(8)/Engg./2009-10/212

Dt.31.03.2009

Tender Notice

The Sr. Manager(Elect.), Engineering Division, Room No.147, India Trade Promotion Organization, Pragati Maidan, New Delhi on behalf of the Chairman & Managing Director, invites sealed item rate tenders for the following work from registered contractors of CPWD/MES/RAILWAY/ Public undertakings and Specialized contractors who have experience of satisfactorily completing at least two works of operation and maintenance of Central A.C. Plants each of at least 480 TR aggregate capacity (with at least 4 units of 80TR or more each) during last 3 years ending 31.12.2008 for a Govt. Deptt./Public Sector Undertaking. Proof of such experience in shape of satisfactory completion certificates indicating plant capacity, location etc. issued by an officer not below the rank of Executive Engineer or Manager will have to be produced by the intending bidders for issue of tender documents. The tender document will be received up to 3.00PM on **24.04.2009** by the undersigned and will be opened by him or his authorized representative on the same day at 3.30PM.

Name of Work:	Operation, maintenance and repairs of A.C. Plants in Pragati Maidan, New Delhi.
Sub Head :	Operation, routine maintenance and repair etc.
Time of Completion:	One year from the date of award letter.
Estimated Cost:	Rs.12,43,345.00
Earnest Money:	Rs.24,870.00
Performance guarantee deposit (to be deposited before award of work.)	5% of the tendered amount.
Security Deposit	5%
Cost of Tender:	Rs.500/- (non-refundable)

The tender documents can be had on all working days between 11.00AM to 4.00PM **from 06.04.2009 to 20.04.2009** up to from the office on payment of tender cost mentioned above (non-refundable) in cash and also on production of valid PAN, Work Contract Registration/Tin No. as applicable and experience certificate as stated above. The Earnest Money should be deposited through cash/demand draft along with the request application favouring India Trade Promotion Organization, Pragati Maidan, New Delhi. The application of the contractor who does not deposit the earnest money in the prescribed manner shall be summarily rejected. Other terms and conditions as per the tender.

This Tender Notice may also be seen at website www.indiatradefair.com

Sr. Manager (Electrical)

India Trade Promotion Organisation
(Electrical Unit)

Schedule of Work

Name of Work: Operation Maintenance and Repair of A.C. Plants at Pragati Maidan, New Delhi – 110001 during the year 2009-10.

Item No.		Item of work	Quantity	Rate	Unit	Amount	Remarks
		Sub-Head I (Operation and Routine Maintenance)					
1.		Operation and routine maintenance of the following machines (for one year) 10 hours daily between 8 AM to 10 PM including Saturday, Sunday and holidays.					
	1.	1x10TR capacity packaged units of Admn. Building	12 Months 600 hours		Month Hr.		
	2.	2x60TR capacity central AC Plant of Shakuntalam Theatre	12 Months 200 hours		Month Hr.		
2.		Operation and routine maintenance of 2x40TR capacity central AC plant of Nehru Pavilion along with 14x2TR capacity fan coil units for one year 10 hours between 8.00AM to 10.00 PM Saturday, Sunday, holidays (Except on Monday)	300 days 100 hours		Month Hr.		
3.		Operation and routine maintenance of the following package central A.C.Plants (As & when required) Any 10 Hrs. between 6.00 AM to 10.00PM per day.					
	i)	4 x 120 TR Capacity Central A.C. plant of Hall No.7	100 days 200 Hrs.		day Hrs.		
	ii)	3 x 35 TR Capacity Central A.C. plant of Hall No.18	20 days 40 Hrs.		Month day Hrs.		
	iii)	3 x 7 TR Capacity Packaged Units of Auditorium	100 days 100 Hrs.		Month day Hrs.		
		Sub Head – II (Repairs)					
1.		Supply and charging of refrigeration oil in the open type compressors of various capacities.	400 ltrs.		Ltrs.		

2.		Replacement of shaft seal O-ring set of following Kirloskar/ACCELL make open type compressors.					
	a)	AC -1670 (Kirloskar)	6 Sets		Set		
	b)	AC - 870 (Kirloskar)	3 Set		Set		
	c)	SMC - 4/100 (ACCELL)	2 Set		Set		
3.		Replacement of shaft seal assembly in following compressors Kirloskar/ACCELL make.					
	a)	AC -1670 (Kirloskar)	4 Set		Set		
	b)	AC - 870 (Kirloskar)	2 Set		Set		
	c)	SMC - 4/100 (ACCEL)	2 Set		Set		
4.		Opening up of the following capacities Kirloskar/ACCELL make compressors for inspection and re-assembling the same including pressure testing with dry nitrogen etc. as required.					
	a)	AC -1670 (Kirloskar)	2 Job		Job		
	b)	AC - 870 (Kirloskar)	1 Job		Job		
	c)	SMC - 4/100 (ACCEL)	1 Job		Job		
5.		Supply and charging of refrigerant gas F-22 i/c testing etc. as required.	400 Kg.		Kg.		
6.		Crank shaft re-metalling, grinding polishing and balancing statically and dynamically including to and fro charges for handling etc. for following compressors.					
	a)	AC -1670 (Kirloskar)	2 set		Job		
	b)	AC - 870 (Kirloskar)	1 Job		Job		
	c)	SMC - 4/100 (ACCELL)	2 Job		Job		
7.		Providing following spare parts for replacement in the Kirloskar make AC-series open type compressors.					
	a)	Crank shaft (for AC-16 70 only)	2 Nos.		each		
	b)	Cylinder liner	16 Nos.		each		
	c)	Connecting rod	16 Nos.		each		
	d)	Piston	16 Nos.		each		
	e)	Piston ring	32 Nos.		each		
	f)	Suction valve ring	16 Nos.		each		
	g)	Suction valve spring	16 Nos.		each		
	h)	Discharge valve ring	16 Nos.		each		
	i)	Discharge valve spring	32 Nos.		each		

	j)	Discharge valve assembly	4 Nos.		each		
	k)	Gasket set for AC -1670	1 Set		each		
	l)	Gasket set for AC - 870	1 Set		each		
	m)	Piston pin	16 Nos.		each		
	n)	Strainer disc	2 Nos.		each		
	o)	Split pin	16 Nos.		each		
	p)	Main bush bearing of compressor I. AC - 1670 II. AC - 870	2 Set 1 Set		each each		
	q)	Connecting rod nut	40 Nos.		each		
	r)	Paper filter	6 Nos.		each		
8.		Providing following spare parts for replacement in the ACCELL make compressor model SMC - 4/100					
	I.	Piston with piston rings (18)	1 No.		each		
	II.	Bushing for piston pin (17B)	1 No.		each		
	III.	Half section of bearing (17 A) 0.50 U/S	2 Nos.		each		
	IV.	Connecting rod bolts (17 C)	1 No.		each		
	V.	Castle nut (17D)	2 No.		each		
	VI.	Split pin (11 K)	15 Nos.		each		
	VII.	Cylinder liner with suction valve complete (19)	One		each		
	VIII	Cylinder liner without suction valve (19 A)	One		each		
	IX.	Un-loading ring with pins (19B)	One		each		
	X.	Washer for unloading ring (19C)	2 Nos.		each		
	XI.	Spring for unloading ring (19D)	2 Nos.		each		
	XII.	Suction valve ring plate (19F)	1 No.		each		

	XIII	Valve spring (19G)	2 Nos.		each		
	XIV	Discharge valve seat (20A)	1 No.		each		
	XV.	Discharge valve ring plate (20C)	2 Nos.		each		
	XVI	Nut 20(E)	2 Nos.		each		
	XVI I.	Unbreal screw (20D)	One		each		
	XVI II.	Single frame (unload 100) (B)	One		each		
	XIX	Rocker for unloading mech. (15- A-E)	2 Nos.		each		
	XX.	Gear wheel (11 E/F)	1 Set		each		
	XXI	Bearing bushing (11C/D)	1 Set		each		
	XXI I.	Bushing with collar (collar (0.50 U/S)	1 Set		each		
	XXI II.	Gasket set	1 Set		each		
	XXI V.	Dowty ring set	1 Set		each		
	XXV	Sealing ring set	1 Set		each		
9.		Pressure testing of the water chilling machines of following capacity with dry nitrogen and vaccuminising					
	i)	Upto and including 80 TR capacity	4 Jobs		each		
	ii)	Above 80 TR but upto 120 TR capacity	4 Jobs		each		
10		Dismantling of end covers of condensers of the following sizes and de-scaling rodding with nylon brushes of condensers of following capacities and replacement of rubber gaskets of water boxes i/c re-fixing of end covers and pipe connection etc. as required.					
	i)	Upto and i/c 80 TR capacity	7 Jobs		Job		
	ii)	Above 80 TR but up to 120 TR Capacity	4 Jobs		Job		
11		Re-building of Kirloskar Copeland/Copeland make sealed compressors of following capacities complete with cutting the dome repairing the compressor					

		including replacement of worn out parts and rewinding the stator cleaning, oil charging and welding etc. as required.					
	i)	Copeland/kirloskar Copeland model AG-5560 5TR (Nominal) capacity.	2 Job		Job		
	ii)	Kirloskar Copeland model AG-5552 having 4TR (nominal) capacity.	2 Job		Job		
12		Installation, testing and commissioning of the following rebuilt compressor of Copeland/Kirloskar Copeland make in the packaged units after flushing the system, pressure testing, vaccumising, charging of gas including replacement of catch all drier etc. as required.					
	i)	5 TR nominal capacity	2 Job		Job		
	ii)	4 TR nominal capacity	2 Job		Job		
13		De-scaling condensers of packaged units of the following capacities.					
	i)	10 TR capacity	7 Jobs		Job		
	ii)	7 TR capacity	3 Jobs		Job		
14		Servicing of the compressor service valves (Suction & discharge) of the following including replacement of packing and Teflon component etc.					
	a)	AC -1670 (Kirloskar)	4 Set		each		
	b)	AC - 870 (Kirloskar)	2 Set		each		
	c)	SMC - 4/100 ACCELL Make Compressor	2 Set		each		
15		Servicing of refrigeration line valves and fittings of chilling packages of 40TR/60TR/80TR/120TR capacities complete as required.	8 Sets		each		
16		Replacement of G.M.sleev of following size i/c polishing of shaft etc. as required.					
	I.	2.00 HP mono-block pump sets	2 set		each		
	II.	15.00 HP split easing pump set	16 set		each		
	III.	10/10.07 HP split easing pump set	6 set		each		
	IV.	7.5/5.00 HP Split easing	6 set		each		

		pump set					
17		Structural steel work welded in built-up section trusses and frame work i/c cutting hoisting and fixing in position and applying a priming coat of approved steel primer all complete.	300 KG		Per Kg.		
18		Repairing of damaged insulation of chilled water line insulated with fibre glass crown /thermo Cole section covered with polythene faced hessain and chicken wire mesh and finally finished with two layers and sand cement plaster etc. as required.	30 sq.m.		Sq.m		
19		Rewinding of following capacities of three phase A.C. motors installed at the various A.C. plant for chilling units, condenser and chilled water pumps, AHU's and cooling towers etc. i/c to & fro charges for handling the same etc. as required.					
	i)	150 HP induction motor	2 Nos.		each		
	ii)	15 HP induction motor	6 Nos.		each		
	ii)	10.7/10 HP induction motor	3 Nos.		each		
	i)	12.5 HP induction motor	1 No.		each		
	v)	7.5 HP induction motor	8No.		each		
	v)	5.00 HP induction motor	2 No.		each		
	v)	3.00 HP induction motor	1 No.		each		
	v)	2.00 HP induction motor	1 No.		each		
	i)	1.0/1.50 HP induction motor	1 No.		each		
20		Replacement of following sizes of contractor, overload relay, timer and single phase preventor etc. LT/LK make including dismantling the existing and connections with new replaced part etc. as required.					
	I.	Contactor ML – 10	4 No.		each		
	II.	Contactor ML – 8	1 No.		each		

	III.	Contactora ML - 6	4 No.		each		
	IV.	Contactora ML - 1.5	4 No.		each		
	V.	Contactora ML -1	10 No.		each		
	VI.	Contactora ML - mk 1	4 No.		each		
	VII.	Over load relay 90 to 150 A	4 No.		each		
	VIII.	Over load relay 10 A to 16 A	4 No.		each		
	IX.	Over load relay 4 to 6.5 A	4 No.		each		
	X.	Over load relay 9 A to 14 A	4 Nos.		each		
	XI.	Over load relay 6 A to 10 A	4 No.		each		
	XII.	Timer GT - 100	4 No.		each		
	XIII.	Single phase preventor VSP-I	4 No.		each		
21		Replacement of LT/LK, Siemens make main switches (in open execution) i/c. connections etc. as required.					
	I.	400 A LT/LK make	4 No.		each		
	II.	250 A LT/LK make	3 No.		each		
	III.	100 A LT/LK make	4 No.		each		
	IV.	63 A LT/LK make	4 No.		each		
	V.	25 A LT/LK make	3 No.		each		
	VI.	63 A Siemens make	4 No.		each		
	VII.	25 Siemens make	2 No.		each		
22		Replacement of following sizes of V-belts in the AHU's					
	I.	B-105	12 Nos.		each		
	II.	B-102	2 Nos.		each		
	III.	B-100	4 Nos.		each		
	IV.	B-95	4 Nos.		each		
	V.	B-89	2 Nos.		each		
	VI.	A-73	6 Nos.		each		
	VII.	B-23	4 Nos.		each		
	VIII.	A-27	6 Nos.		each		
	IX.	B-128	6 Nos.		each		
	X.	B-126	4 Nos.		each		
	XI.	B-112	5 Nos.		each		
23		Replacement of G.M. sleeve of pump sets of following sizes I/C polishing of shaft etc. as required.					
	I.	7.5/10.00 HP monobloc pump sets	8 No.		each		
	II.	5.00/3.00 HP monobloc pump sets	8 No.		each		
24		Replacement of G.M bushes of monobloc pumps "Beacon make" of capacities up to 10 HP complete as required.	6 Sets		Set		
25		Replacement of indication light lamps in the cubical panels	50 Nos.		Set		
26		Replacement of toggle stretches in the cubical	24 Nos.		Set		

		panels of A.C. plants. 24 Nos.					
27	.	AHU's upto 50 TR capacity shaft balancing statically and dynamically after remetallic, grinding and polishing including to & fro charges for handing etc. as required.	4 Jobs		each		
28	..	Alignment of compressor and motor coupling compt. as required.	6 Job		job		

NOTE: Contractor should quote the rate and amount of service tax applicable for the above items of works extra/separately.

SA(E)

DM(E)

SM(E)

Term s & Conditions

1. The tenderers are advised to inspect the site of installation before offering their rates for various items of work. For this they may contact Manager (Elect) of ITPO .
2. The contractor has to make arrangement for the operation of A.C. plants for providing air conditioning facilities at required temperatures in the Exhibition Halls/Theatre/auditorium at ITPO, Pragati Maidan as and when required during Exhibition/conference days for which advance intimation shall be given.
3. Generally the exhibition are conducted between 9AM to 8PM but in case of requirement of operational) staff during odd hours the contractor shall have to make arrangement of the operational staff even within a notice of 12 Hrs.
4. The contractor will display all his contact telephone numbers, cellular number at the plant room as well as in the sub-division office to enable this office to make contact without loss of time.
5. The list of installations of the A.C. plant/equipment in brief has been give in the enclosed Annexure.
6. The contractor may be required to operate the A.C. plant in full or in part as per the requirement and timings required by the organisers.
7. To maintain the conditions inside the halls the A.C. plants are required to run for early hours so that at the time of start of function, the desired temperature in the Halls should be maintained.
8. During the operation of A.C. plants if any fault occurs the firm shall rectify the same immediately by deploying extra labour/material and specialist technician in the field e.g. electrician, plumber, refrigeration mechanic etc.
9. The firm should deploy minimum following trained/experienced technical staff for the operation and routine maintenance:-
 - a) Staff for operational duty:-
 - (i) For Central Plants (at each location)
 - Khallasi 1 No.
 - Operator 1 No.
 - (ii) For packaged Unit (at each location)
 - Operator 1 No.
 - (iii) An Electrician will be on duty at Pragati Maidan whenever one or more plants are in operation by the contractor.

- b) Additional technical and supervisory staff shall be deputed by the contractor for carrying out preventive maintenance and repairs.
10. Proper care has to be given towards the following:-
 - 1) Trouble free operation of the A.C. plant/requirements
 - 2) Smooth working of AHU's
 - 3) Proper functioning of all AHU's & main elect. Panels.
 - 4) Functioning of cooling towers.
 - 5) Observation of water flow in condenser water and chilled water lines and to maintain water level in expansion tank and cooling towers.
 - 6) Proper working of all safety controls.
 - 7) Recording readings in the log works.
 - 8) Observation of inside conditions of Halls.
 11. The contractor has to test run the A.C. system two days before commencement of each exhibition. During non exhibition period, the contractor shall test the system once a month and this shall be counted for payment on day basis.
 12. All the installation of A.C. system shall be, handed over to contractor on award of work and the contractor shall be responsible for its watch and ward and security. On closing of contract same has to be handed over back to the department in good condition.
 13. The operation includes keeping general cleanliness of the A.C. plant and connected equipments, A.C. plant room, AHU rooms, cooling towers etc. The contractor should depute adequate workman periodically for this purpose.
 14. The operation also includes general check-up of pumps, coupling, glands, leakage, adjustment of belts, tightening of mounting bolts of AHU motors and various pumps, to carry out refrigerant leak test and to check up all safety controls.
 15. The contractor has to quote the rates on per day basis taking into consideration the total number of days for which the A.C. plants/air blower may be required to operate. The total numbers of days is mentioned in the Schedule of work.
 16. The rates quoted shall be inclusive of all types of local Central/State taxes and duties etc. Nothing extra will be paid on account of these taxes and duties etc.
 17. The contractor shall have to arrange, at his own cost, all type of tools and plants etc. as required to carry out the complete work. No T&P shall be issued to the contractor by the department.
 18. The contract can be terminated at any time by the department without assigning any reasons and without any compensations.
 19. The staff of the contractor shall maintain log books for the A.C. system in a manner as approved by the Engineer In-charge.

20. The work shall be carried out as per the instructions of the Engineer In- charge or his authorised representative.
21. The contractor shall be fully responsible for the safety of all his workers employees employed on the work under this contract.
22. There shall be no liability on the department to pay any compensations arising out of any labour disputes or accidents etc. at site.
23. The electricity and water will be provided free of cost by the department for any maintenance /repair works to be carried out by the contractor.
24. Quarterly payment shall be made on submission of pre-receipted bill by the contractor in triplicate.
25. In the event of extension of period of contract, security deposit will only be refunded on the expiry of the contract.
26. Items given under the sub head @ Repair@ are tentative and will be required to be executed only if needed.
27. The contractor shall have to get the A.C. motors repaired/rewinded from the authorised service centre of the manufacturer.
28. The contractor shall have to procure the spares from the authorised dealer/distributor of the manufacturer and produce documentary evidence for the same.

Proforma for contract for Routine maintenance, and operation of AC plants at Pragati Maidan, New Delhi.

1. Commercial Conditions

- a) It is confirmed that validity of the offer is minimum for one year.
 - b) It is confirmed that terms of payment and all other conditions given in the NIT are acceptable.
 - c) It is confirmed that watch and ward will be responsibility of contractor all through.
2. Routine Maintenance of A.C.Plant covered under operation are as under.
- a) It is confirmed that the checking of the plants would be carried out as per NIT while running the respective plants such as hourly checks, daily checks, weekly checks, monthly checks, half year checks.
 - b) It is confirmed that routine maintenance of all AHU's cooling towards electrical panel and greasing of motors/pumps of the plants would be carried out four times in a year to the satisfaction of Engineering Incharge.
 - c) It is confirmed that inspection of the belts/adjusting of tension of belts of the AHU's etc. would be carried out whenever found necessary under the routine maintenance.

d) It is confirmed that day-to-day routine maintenance and operation of the respective plants would be carried out as per the requirements of the deptt.

3. Operation of the Plants

It is confirmed that the rates quoted are for 10 hrs. Operation. Beyond this, hourly rates would be applicable.

4. The indicative operation of the AC plants are given below. These are, however, not binding and the actual days/hours etc. of operation may differ substantially.

a)	1 X 10 TR Western Make package units for Admn. Building.	12 months in a year
b)	2 X 60 TR Central AC plant for Shakuntalam Theatre	11 months
c)	3 X 7 TR Western make packaged units for Auditorium in Administration Building package units for Auditorium in Admn. Bldg.	Maximum upto 40 days in a year
d)	4 X 120 TR Central AC plants for Hall No.7	Approximately 100 exhibition days.
e)	2 X 40 TR Central Plant + 2 X 14 Nos. Fan coil Units for Nehru Pavilion.	20 days in a year
f)	3 X 35 TR Central AC Plant of Hall No.18	Maximum upto 30 days in a year.

5. The routine maintenance for the equipment would be covered in operation.

6. It will be obligatory on the contractor to ensure efficient functioning of the plant at least 48 hours before the start of any event/exhibition in the Halls being fed from the concerned plant.

The contractor is to carry out the periodical checks under routine maintenance below :
Record the same and get it initialled from SA/DM/Mgr.

HOURLY CHECK

1. Suction and discharge pressure of compressor
2. Oil level and oil pressure.
3. Check and record of temp. and humidity of the air-conditioned space.
4. General check for satisfactory operation of blower, AHU pumps cooling tower and controls etc.

DAILY CHECK

1. water condition of the cooling tower.
2. Flat valve operation.
3. Operation of solenoid valves.
4. Pumps and glands.
5. check and clean motors and bearing for over heating/unusual sound if required.

WEEKLY CHECK

1. leak test on refrigerant system with leak tester.
2. Check and clean the cooling tower sump tank.
3. Check water distribution system.
4. Dusting of all equipments and machine with blower.
5. Checking play in moving parts of motor and pumps.
6. check up all filters and do necessary cleaning
7. Check up & adjust belt tension of AHU's if required.

MONTHLY CHECK

1. Check and clean the contacts of starters, switches etc.
2. Check bearing lubrication for motors and fans.
3. checking and setting of protective control devices of all types.
4. Replacing of pumps glands and water scales if required.
5. checking all the grills and diffusers of air supply and return system.
6. Check and test all the controls.
7. Cleaning of AHU's/ Coil washings

HALF YEARLY

- 1 To check electrical insulation & earth resistance of the installations.

Annexure

Technical Details/Specifications

(A) New AC Plant (for Hall No.7D to H and additional AHU's for Hall No. 7ABC).

1. 4 Nos. Chilling units complete with CD/CHW pump sets, cooling towers and 10 Nos. AHU's installed in year 1988-89.

DETAIL OF THE EQUIPMENT FOR ABOVE UNITS ARE GIVEN BELOW

Item No.	Quantity	Description
1.	4 Nos.	Water chillers each of 120TR capacity Blue Star make complete with reciprocating compressor , service valves, gauge panels, controls, induction motor, condenser, chiller, refrigerant piping and drive package etc.etc.
2.	4 Sets	Kirloskar make 15H.P. split casing for condenser water piping comprising with crompton make A.C. induction motor complete.
3.	4 Sets	Kirloskar make 15H.P. split casing for chilled water piping comprising with crompton make A.C. induction motor complete.
4.	4 Nos.	D,B.R. make 120 TR capacity induced draught cooling tower of FRP construction complete.
5.	10 Nos.	Air handling units of sizes complete in all respects.
6.	10 Sets	Humidification equipment comprising with F.H.P. pump spray headers, nozzles, water tanks and valves etc. as required.
7.	10 Sets	Heating package equipments complete with strip heaters, controls and contactors etc.
8.	Lot	Condenser water piping of sizes
9.	Lot	Gate valves, butterfly valves, globe valves balancing valves, check valves, pressure gauges stem thermometer etc. etc.
10.	Lot	Chilled water piping of sizes.
11.	Lot	Valves strainers, instruments etc. in chilled water piping.
12.	Lot	Ducting.
13.	Lot	Grills and diffusers.
14.	One Set	Cubical panel in plant room comprising incoming

		ACB's bus bars, Outgoing SFU's for compressors, AHU, pumps, cooling towers, voltmeter, ammeter, preventer etc. etc.
15.	8 Sets	Cubical panel in weather maker room complete with incoming SFU's bus bars and outgoing SFU for AHU motor/heating packages etc. etc.
16.	One Set	Conrol console comprising ON-OFF indication lights, alarms with reset push button and control contactors ec.
17.	Lot	Power cable, control cable and earth strips for loop earthing.

C) NEHRU PAVILION AC PLANT

1. 2 Nos. chilling units complete with Condenser and Chille. Water pump sets, cooling towers and 4 Nos. AHU's installed in the year 1980-81.
2. 14 Nos. 2TR capacity fan cool units installed in the year 1980-81.

Item No.	Quantity	Description
1.	2 Nos.	Water chillers each of 40TR capacity Blue Star make complete with reciprocating compressor , service valves, gauge panels, controls, induction motor, condenser, chiller, refrigerant piping and drive package etc.etc.
2.	2 Sets	Beacon make monobloc Centrifugal pump sets comprising with induction motor for condenser water piping complete.
3.	2 Sets	Beacon make monobloc Centrifugal pump sets comprising with induction motor for chilled water piping complete.
4.	2 Nos.	Paherpur make 40 TR capacity induced draught cooling tower complete with motor and starter etc.
5.	4 Nos.	Air handling units of sizes complete in all respects.
6.	4 Sets	Humidification equipment comprising with F.H.P. pump spray headers, nozzles, water tanks and valves etc. as required.
7.	4 Sets	Heating package equipments comprising strip heaters, controls and contactors etc.
8.	Lot	Condenser water piping of sizes
9.	Lot	Gate valves, butterfly valves, globe valves balancing valves, check valves, pressure gauges stem thermometer etc. etc.
10.	Lot	Chilled water piping of sizes.
11.	Lot	Valves strainers, instruments etc. in chilled water piping.
12.	Lot	Ducting.
13.	Lot	Grills and diffusers.
14.	1 Set	Cubical panel in plant room comprising incoming ACB's bus bars, Outgoing SFU's for compressors, AHU, pumps, cooling towers, voltmeter, ammeter, preventer etc. etc.

15.	4 Sets	Cubical panel in weather maker room complete with incoming SFU's bus bars and outgoing SFU for AHU motor/heating package etc. etc.
16.	1 Set	Control console comprising ON-OFF indication lights, alarm with reset push button and control contactors etc.
17.	Lot	Power cable, control cable and earth strips for loop earthing.

D. Shankuntalam Theatre A.C. Plant

- Two Nos. Chilling Unit complete with condenser and chiller water pump sets, cooling towers and 2 Nos. AHU's installed in the year 1990-91.

Item No.	Quantity	Description of Item
1.	2 No.	Water packaged chiller of 60TR capacity complete with reciprocating compressor , service valves, gauge panels, controls, induction motor, condenser, chiller, refrigerant piping and drive package etc.etc.
2.	3 Sets	Split condenser water pump set beacon make complete with Crompton make AC induction motor for condenser water piping complete.
3.	3 Sets	Split condenser water pump set beacon make complete with Crompton make AC induction motor for condenser water piping complete.
4.	2 No.	D.B.R./Mihir make 80TR capacity induced draught cooling tower of FRP construction complete.
5.	2 Nos.	Air handling units of sizes complete in all respects.
6.	2 Sets	Humidification equipment comprising of humidification pan, humidstat contactor etc.
7.	2 Sets	Heating package equipment complete with heaters, thermostat, safety stat and contactors etc.
8.	Lot	Condenser water piping of sizes
9.	Lot	Gate valves, butterfly valves, globe valves balancing valves, check valves, pressure gauges stem thermometer etc.
10.	Lot	Chilled water piping of sizes.
11.	Lot	Valves strainers, instruments etc. in chilled water piping.
12.	Lot	Ducting.
13.	Lot	Grills and diffusers.
14.	1 Set	Cubical panel in plant room comprising incoming ACB's bus bars, Outgoing SFU's for compressors, AHU, pumps, cooling towers, voltmeter, ammeter, preventor etc. etc.
15.	2 Sets	Cubical panel in weather maker room complete with incoming SFU's bus bars and outgoing SFU for AHU motor/heating package etc. etc.
16.	1 Set	Control console comprising ON-OFF indication lights, alarm with reset push button and control contactors etc.
17.	Lot	Power cable, control cable and earth strips for

		loop earthing.
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E. ADMINISTRATION BUILDING 1st FLOOR

1 x 15TR capacity packaged type AC Unit installed in the year 1982-83

Item No.	Quantity	Description
1.	1 Nos.	Western make 15TR capacity packaged unit complete with compressor water cooled condensers, DX Cool, filters blowers with motor integral refrigerant piping, H.P./L/P/ cut-outs and their mistake control.
2	2 Nos.	Beacon make 3 H.P. Centrifugal monobloc condenser water pump sets complete with starter etc.
3.	1 Nos.	15 TR capacity Asian make induced draught cooling tower of FRP construction complete.
4.	1 set	Heating package comprising with strip heaters, controls and contactors etc.
5.	Lot	Condenser water piping of sizes
6.	Lot	Ducting.
7.	Lot	Grills and diffusers.
8.	1 Set	Cubical panel in plant room comprising incoming SFU bus bars, Outgoing SFU for the package units, pumps, heater banks, cooling towers, voltmeter, ammeter, preventor etc. etc.
9.	Lot	Power cable, control cable and earth strips for loop earthing.

F. AUDITORIUM AC PLANT IN ADMINISTRATION BUILDING

3x7.5TR Package units for auditorium installed in year2001-02

Item No.	Quantity	Description
1.	3 Nos.	Western make packaged units of 7.5 TR each comprising compressor, water cooled condensers, DX Coil, filters, blowers with motor integral refrigerant piping, H.P./L/P/ cut-outs and their mistake control.
2.	2 Nos.	Beacon make 3 H.P. Centrifugal monobloc condenser water pump sets complete with starter etc.
3.	1 Nos.	15 TR capacity Asian make induced draught cooling tower of FRP construction complete.
4.	1 Set	Heating package comprising with strip heaters, controls and contactors etc.
5.	Lot	Condenser water piping of sizes
6.	Lot	Ducting.

7.	Lot	Grills and diffusers.
8.	1 Set	Cubical panel in plant room comprising incoming SFU bus bars, Outgoing SFU for the package units, pumps, heater banks, cooling towers, voltmeter, ammeter, preventor etc. etc.
9.	Lot	Power cable, control cable and earth strips for loop earthing.

G. HALL NO.18 AND BASEMENT AREA

3 Nos. Chilling Units complete with condenser and chiller water pump sets, cooling towers and 2Nos. AHU's installed in year 1994-95.

Item No.	Quantity	Description
1.	3 Nos.	Voltas make water package chiller each of 35TR capacity complete with reciprocating compressor service valves, gauge panels, controls, induction motor, condenser and chiller, refrigerant piping and drive package etc. etc.
2.	2 Nos.	Air handling units complete in all respect.
3.	2 Nos.	Induced draft FRP construction complete.
4.	1 Set	Heating package comprising with heating coil in the AHU's, hot water generator, pump set, connected piping & valves etc.
5.	3 Nos.	Chilled water pumps with TEFC motors, base plate and other accessories complete.
6.	3 Nos.	Condenser water pumps with TEFC motor and other accessories complete.
7.	1 No.	Cubical panel in panel in plant room comprising incoming and outgoing switches, voltmeter and ammeter etc.
8.	1 No.	Cubical panel in Ahu room.
9.	1 No.	Control console.

Sr.Manager(Elect.)

wages

Description	Unit	Rate(Rs.)
Wireman, Grade -1	1 day	156.00
Fitter, Grade - 1	1 day	156.00
Fitter, Grade -2	1 day	146.00
Mason , Grade- 2	1 day	146.00
Painter	1 day	146.00
Khallasi	1 day	140.00

Sr. Manager (Elect.)

AGREEMENT

AN AGREEMENT is made this Day oftwo thousand between the India Trade Promotion Organization,. A company incorporated under the Companies Act, 1956 and with its registered office at Pragati Maidan, New Delhi – 110001, which expression shall include its successor, unless repugnant to or excluded by the contract here of and assignees of and represented by its Managing Director, ITPO the first party (hereinafter called the Authority) and by its sole Proprietor/Partner/Managing Director Residence of(which expression shall be include his/its successors heirs, executors, representatives and or assignees of the second party (hereinafter called the contractor).

WHEREAS the Authority had, under Notificationdated invited tenders for the work of

WHEREAS the contractor has submitted tender for carrying out theas per the tender documents page 1 to page..... and has represented that in conformity with his/its obligation contained in the tender as modified by the correction slips and corrigendum contained he/it shall carryout the same truly, faithfully and honestly.

THE SAME has been accepted by both the parties on the terms and conditions, corrections, corrigendum contained in the tender as modified as well as the letter of acceptance issued party No.1 annexed here to as.

The same shall be binding on both the parties.

IN WITNESS WHEREOF, the parties have signed the deed of agreement on the date month and year referred to above.

Date the
AT New Delhi
WITNESS:

- 1. Party No.1
- 2. Party No.2

