



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN – 05

Ref: PSER:SCT: SDG-M1335:TCN-05

Date: 25-05-2012

Sub	Tender change notice (TCN) 05	
Job	Design, engineering, manufacturing, supply, erection, commissioning etc of Fire Protection System for 2x500 MW units (Unit#3&4) at Sagardighi STPP, WB.	
Ref	1.0	Tender no PSER:SCT:SDG-M1335:12
	2.0	BHEL's NIT, vide reference no PSER:SCT:SDG-M1335:2792, dated 16-04-2012.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:SDG-M1335:TCN-01, dated 05-05-2012.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:SDG-M1335:TCN-02, dated 15-05-2012.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:SDG-M1335:TCN-03, dated 23-05-2012.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:SDG-M1335:TCN-04, dated 24-05-2012
	7.0	All other pertinent issues till date.

With reference to above, following points/ documents, relevant to tender, may please be noted and complied with while submitting offer.

- 1.0 Clarification/ Amendment/ Modification as per enclosed Annexure-A.
- 2.0 Revised BOQ cum price schedule format VOL-III- PRICE SCHEDULE, REV-01 superseding VOL-III PRICE SCHEDULE, REV-00 issued earlier along with NIT. Bidders to submit their price in this revised VOL-III- PRICE SCHEDULE, REV-01.
- 3.0 Revised 'No deviation certificate' as per enclosed Annexure-2. Bidder shall submit no deviation certificate as per enclosed format only.
- 4.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,
for BHARAT HEAVY ELECTRICALS LTD

ENGR (SCT)

Encl

- 1.0 As above.

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691, 23211798, 23211796

JOB	Design, engineering, manufacturing, supply, erection, commissioning, etc of Fire Protection System for 2x500 MW units at Sagardighi STPP, WB.
TENDER NO	PSER:SCT:SDG-M1335:12.

SL NO	CLARIFICATION/ AMENDMENT/ MODIFICATION
1.0	VOLUME-II
1.1	List of approved sub-vendor list is attached as Annexure-B.
2.0	General
2.1	Bidder shall submit offer strictly in compliance with technical specification and tender terms along with amendment/ clarifications issued till date within the due date.
2.2	All other terms & conditions shall remain unchanged.



BHEL APPROVED SUB-VENDOR LIST

Annexure-B to TCN-05

DOC. NO.:- PE-TS-373-522-A001

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BHEL (PEM) APPROVED SUB-VENDOR LIST FOR FIRE PROTECTION SYSTEM

SL. NO.	ITEMS	APPROVED SUB-VENDOR	PLACE	REMARKS
1	HORIZONTAL /VERTICAL CENTRIFUGAL PUMPS	KBL M&P FAIR-MORSE BANKS FLOWMORE	KIRLOSKARWADI NEW DELHI GHAZIABAD	
2	DIESEL ENGINE	CUMMINS (I) LTD. R&H (GREAVES LTD.) KOEL	PUNE PUNE PUNE	
3	AIR COMPRESSOR	INGERSOLL RAND K.G. KHOSLA / KPC ELGI	AHMEDABAD FARIDABAD / PUNE COIMABATORE	
4	HYDRANT VALVES	SHAH BHOGILAL SUKAN NEWAGE VENUS WINCO	AHMEDABAD AHMEDABAD SURENDRA NAGAR KOLKATTA AHMEDABAD	ISI MARKED ISI MARKED ISI MARKED ISI MARKED
5	BUTTERFLY VALVES (WATER SERVICE)	VENUS FOURESS BDK VALVES KBL KALPANA	KOLKATTA BANGALORE HUBLI PUNE KOLKATTA	
6	SAFETY RELIEF VALVES	LEADER J.N. MARSHALL BHEL KEYSTONE	JALLANDAR PUNE TRICHY BARODA	
7	STRAINERS (Y-TYPE & BASKET TYPE)	MULTITEX SAROJNI ENTERPRISES FILTRATION ENGRS. PVT. LTD, JAYPEE INDUSTRIES PVT. LTD.	NEW DELHI KOLKATTA MUMBAI NEW DELHI	
8	FITTINGS & FLANGES	M S FITTINGS METAL LLOYDS BHARAT FORGE TUBE PRODUCTS NITIN PROFILE JUPITER METAL	KOLKATTA MUMBAI PUNE BARODA JALANDHAR	
9	MS/ GI ERW PIPES	SAIL JINDAL SURYA ROSHINI	ROURKELA GHAZIABAD BAHADUR GARH	



BHEL APPROVED SUB-VENDOR LIST

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		GOOD LUCK TUBES	SIKANDRABAD	APPROVED UPTO 250 NB SIZES
		ADVANCE STEEL TUBES LTD.	SAHIBABAD	APPROVED UPTO 250 NB SIZES
		TATA TUBE	JAMDESH PUR	
		BIHAR TUBES LTD.	SIKANDRABAD (U.P)	APPROVED UPTO 300 NB SIZES
		HI-TECH PIPES LTD.	SIKANDRABAD (U.P)	
10	SEAMLESS PIPES	ISMT MAHARASHTRA SEAMLESS BHEL	AHMED NAGAR MUMBAI TRICHY	
11	STAINLESS STEEL PIPES & TUBES	REMI RATNAMANI CHOKSI APEX TUBES PVT. LTD	MUMBAI AHMEDABAD AHMEDABAD GURGAON	
12	FIRE HOSES	NEWAGE CHATTARIA RUBBER	SURENDRA NAGAR BARUCH	ISI MARKED ISI MARKED
13	WATER MONITOR & WATER-CUM FOAM MONITORS	SHAH BHOGILAL HD FIRE NEW AGE WINCO	AHAMDABAD THANE SURENDRA NAGAR AHMEDABAD	
14	BRANCH PIPE, NOZZLES, COUPLINGS & FIRE BRIGDAE CONNECTIONS	SUKAN VENUS NEW AGE WINCO	AHMEDABAD KOLKATA SURENDRANAGAR AHMEDABAD	ISI MARKED ISI MARKED ISI MARKED
15	DELUGE VALVES	HD FIRE KIDDE (I) LTD. IMPORTED	THANE MUMBAI	UL / FM / LPCB/VDS APPROVED UL / FM / LPCB/VDS APPROVED UL / FM / LPCB/VDS APPROVED
16	HV/ MV SPRAY NOZZLE	KIDDE (I) LTD. TYCO	MUMBAI USA	UL / FM / LPCB/VDS APPROVED UL / FM / LPCB/VDS APPROVED


BHEL APPROVED SUB-VENDOR LIST
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		HD FIRE	THANE	UL / FM / LPCB/VDS APPROVED
17	QUARTZOID BULB SPRINKLERS/DETECTO RS	TYCO NEWAGE INDUSTRIES	USA MUMBAI	UL / FM / LPCB/VDS APPROVED UL / FM / LPCB/VDS APPROVED
18	SOLENOID VALVE	ROTEX AVCON ASCO	BARODA MUMBAI CHENNAI	
19	HYDRO PNEUMATIC TANK	MAKES SUBJECT TO BHEL'S APPROVAL		
20	ANNUNCIATORS	PROCON IIC	CHENNAI MUMBAI	
21	MICROPROCESSOR BASED FIRE ALARM PANEL	SIMPLEX SCHRACK ESSER HONEYWELL DETECTOMAT	USA AUSTRIA GERMANY GERMANY	UL/ FM/ LPCB/ VDS APPROVED UL/ FM/ LPCB/ VDS APPROVED UL/ FM/ LPCB/ VDS APPROVED UL/ FM/ LPCB/ VDS APPROVED
22	LHS CABLE	PATOL KIDDE	U.K U.K	UL/ FM/ LPCB/ VDS APPROVED UL/ FM/ LPCB/ VDS APPROVED
23	FOAM SYSTEM (a) FOAM PUMP (b) INLINE INDUCTOR (c) FOAM POURERS (d) FOAM TANKS	IMPORTED HD FIRE IMPORTED HD FIRE IMPORTED MAKES SUBJECT TO BHEL'S APPROVAL	THANE THANE	UL/ FM/ LPCB/ VDS APPROVED
24	ADDRESSABLE MULTISENSOR TYPE DETECTORS	SIMPLEX SCHRACK ESSER HONEYWELL DETECTOMAT	USA AUSTRIA GERMANY GERMANY	UL/ FM/ LPCB/ VDS APPROVED UL/ FM/ LPCB/ VDS APPROVED UL/ FM/ LPCB/ VDS APPROVED UL/ FM/ LPCB/ VDS APPROVED
25	ADDRESSABLE PHOTO ELECTRIC TYPE DETECTORS	SIMPLEX SCHRACK	USA AUSTRIA	UL/ FM/ LPCB/ VDS APPROVED UL/ FM/ LPCB/ VDS APPROVED



BHEL APPROVED SUB-VENDOR LIST

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		ESSER HONEYWELL	GERMANY	UL/ FM/ LPCB/ VDS APPROVED
		DETECTOMAT	GERMANY	UL/ FM/ LPCB/ VDS APPROVED
26	ADDRESSABLE HEAT DETECTORS	SIMPLEX	USA	UL/ FM/ LPCB/ VDS APPROVED
		SCHRACK	AUSTRIA	UL/ FM/ LPCB/ VDS APPROVED
		ESSER HONEYWELL	GERMANY	UL/ FM/ LPCB/ VDS APPROVED
		DETECTOMAT	GERMANY	UL/ FM/ LPCB/ VDS APPROVED
27	INFRA RED DETECTORS	PATOL NEULA CORPORATION/ODTI	UK	
			CANADA	
28	COATING & WRAPPING MATERIAL/ TAPE (COAL TAR BASED)	IWL LTD.	CHENNAI	
		MP TAR PRODUCTS RUSTECH	BHILAI MUMBAI	
29	INERT GAS SYSTEM	GINGER	W. GERMANY	UL / FM / LPCB APPROVED
		ANSUL	USA	UL / FM / LPCB APPROVED
		NOHMI BOSAI	JAPAN	UL / FM / LPCB APPROVED
		SIEMENS	USA	UL / FM / LPCB APPROVED
30	CAST IRON GATE VALES, GLOBE VALVES & NON-RETURN VALVES (CHECK VALVES)	H. SARKAR	KOLKATA	
		KBL LEADER KALPANA VENUS	KIRLOSARWADI JALLANDAR KOLKATA KOLKATA	
31	GUN METAL GATE VALVES, GLOBE VALVES & NON- RETURN VALVES	A.V.VALES LIMITED	KOLKATA	
		SANT VALVES PVT. LTD. LEADER	LUDHIANA JALLANDAR	
32	PLC BASED PANELS	SIEMENS SNIDER ALLAN BRADLEY GE FANUC	MUMBAI	
			GHAZIABAD NEW DELHI	
33	BATTERY	EXIDE AMCO AMAR RAJA	KOLKATA BANGALORE TIRUPATI	



BHEL APPROVED SUB-VENDOR LIST

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34	SHORT CIRCUIT ISOLATOR, INTERFACE UNITS, INPUT/OUTPUT MODULES, CONTROL MODULES, ZONE MODULES & MONITOR MODULES	SCHRACK	AUSTRIA	UL/FM/LPCB/VDS APPROVED
		SIMPLEX	USA	UL/ FM/ LPCB/ VDS APPROVED
		ESSER HONEYWELL	GERMANY	UL/ FM/ LPCB/ VDS APPROVED
		DETECTOMAT	GERMANY	UL/ FM/ LPCB/ VDS APPROVED
35	CAST STEEL GATE / GLOBE/NON-RETURN VALVES	A.V.VALVES LTD.		
		BDK CRESCENT FOURESS KBL LEADER VENUS	HUBLI BANGALORE PUNE JULLANDER KOLKATTA	
36	CAST IRON AIR RELEASE VALVES	H.SARKAR	KOLKATTA	
		LEADER VALVES LTD. KALPANA VENUS A.V.VALVES LTD. WINCO	JULLANDER KOLKATTA KOLKATTA AHMEDABAD	
37	MICC CABLES	BICC	UK	UL/FM/LPCB/VDS APPROVED
		EUROPA METTALI	ITALY	UL/FM/LPCB/VDS APPROVED
		WREXHAM	UK	UL/FM/LPCB/VDS APPROVED
38	FUSIBLE OPTICAL FIBRE TYPE LHS CABLES	SENSA	GERMANY	UL/FM/LPCB/VDS APPROVED
39	HOSE REEL	SIEMENS	USA	UL/FM/LPCB/VDS APPROVED
		WINCO ANY OTHER MAKE SUBJECT TO BHEL'S APPROVAL	AHMEDABAD	
40	SIREN	KHERAJ		
41	Pressure Gauge & Differential Pressure Gauge	General Instruments	Navi Mumbai	Material to be cleared based on manufacturers/suppliers
		AN Instruments	Kolkata	
		H Guru	Kolkata	
		Manometer	Thane	



BHEL APPROVED SUB-VENDOR LIST

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		Forbes marshall (Hyd)Ltd.	Hyderabad	certificated of conformance/QA P
42	Pressure Switch & Differential Pressure Switch	Indfos	Ghaziabad	
		Switzer	Chennai	
		SOR Inc.	USA	
		Dresser industries Inc.	USA	
		Barksdale GmbH	Germany	
43	Level Instruments/ Level Switch	Sigma	Mumbai	
		Levcon	New Delhi	
		DK Instruments	Kolkata	
		V. AUTOMAT	New Delhi	
44	Paint	Shalimar	-	
		Asian Paints	-	
		Jotun		
		Berger	-	
45	Mini UPS (upto 5KVA) (*)	DB Power	-	
		Emerson/	-	
		APC	-	
		Aplab	-	
46	Batteries Charger (for Diesel Engine & Fire Alarm Panel) '	Exide industries	-	
		Amara-Raja	Tirupt	
		BCH Electric	New Delhi	
		AMCO	-	
		HBL Nife	Hyderabad	
		Chhabi Electricals	Jalgaon	
47	HT/ LT Motor (*)	CGL	Ahmednagar	As per approved QAP
		ABB	Faridabad/ Bangalore	
		Marathon	Kolkata	
		KEC	Bangalore/ Hubli	
		NGEF	Bangalore	
		Bharat Bijlee	Thane	
48	Instrument Cables (*)	Polycab	-	As per approved QAP
		Cords Cables	-	
		Nicco	-	
		Delton	-	
		Universal Cables	-	
		Reliance	-	



BHEL APPROVED SUB-VENDOR LIST

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		INCAB	-	
		Paramount	-	
49	Power & Control Cables (1.1 KV PVC)	Cords Cables	-	As per approved QAP
		NICCO	-	
		Radiant	-	
		Torrent	-	
		Polycab	-	
		Delton	-	
		Paramount	-	
		HVPL	-	
50	PC (*)	Dell	-	Material to be cleared based on manufacturers/s uppliers certificated of conformance
		Compaq	-	
		HP	-	
51	Printer (*)	Epson	-	Material to be cleared based on manufacturers/s uppliers certificated of conformance
		HP	-	
		Canon	-	

Note: Finalization of sub-vendor shall be carried out during detailed engineering by BHEL/CUSTOMER.

VOLUME-III PRICE SCHEDULE, REV-1	
Design, engineering, manufacturing, supply, erection, commissioning etc of Fire Protection System for 2x500 MW units at Sagardighi STPP, WB.	
TENDER NO - PSER:SCT:SDG-M1335:12	
PREAMBLE	
01	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully in rates for various items. Clauses under this preamble shall be read in conjunction with Volume-IA, Volume-IB, Volume-IC, Volume-ID, Volume-II together with subsequent changes/ modifications etc thereto as applicable as on date of submission of price offer.
02	The work shall be carried out strictly as per specifications, description of the items in these schedule and/ or engineer's instructions.
03	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
04	Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc equipment, strengthening of roads/ culverts/ bridges etc including arranging all clearances etc required for carrying out different activities & tests, materials, levies, taxes, transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the tender document and this schedule.
05	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing and leveling etc including fixing of grid pillars, benchmarks etc required for commencement of site activities. No separate payment will be made towards the same.
06	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English.
07	The tender shall be deemed to have visited site and made himself aware of all the site conditions, studied the specifications and details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
08	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.
09	Unless otherwise specified & except for tender on lumpsum basis, for all item rate based tenders, the quantities of the various items mentioned in price schedule are approximate, based on very preliminary information and may vary to any extent or to be deleted altogether. The quoted/ accepted rates shall remain firm and valid as long as variation in total value of work executed under this contract including extra items, but excluding any price escalation, remains within +/- 30% (thirty percent) of the contract price given in the LOI/ WO.

**VOLUME-III
PRICE SCHEDULE, REV-1**

Design, engineering, manufacturing, supply, erection, commissioning etc of Fire Protection System for 2x500 MW units at Sagardighi STPP, WB.

TENDER NO - PSER:SCT:SDG-M1335:12

SCH-1 - TOTAL PRICE

SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	TOTAL QUOTED PRICE ()
1.0	Total scope broadly covers design, engineering, manufacturing, inspection & testing at manufacturer's/ sub-vendor's works, painting, supply/delivery duly packed at project site including freight, receipt, unloading, storage & handling at site, erection, commissioning, load testing, trial run, PG/ acceptance test, handing over to customer, etc in line with drawings/ documents/ test procedures approved by BHEL/ customer, including supply of consumables, first fill lubricants, start-up & commissioning spares, special tools & tackles for maintenance, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date for Fire Protection System for 2x500 MW units at Sagardighi STPP, WB.	
NOTE		
1.0	Bidder to note that total price at sl no 1.0 above shall be considered for evaluation & awarding and should be complete in all respect for the full scope defined and considering all terms and conditions. Separate order will be placed for supply part & service part based on price components.	
2.0	Bidder shall note that VAT & Service Tax (On service part) shall be paid extra at actual as per tender provision. As such, bidder's price shall be exclusive of these 2	
3.0	Bidder to furnish break-up of total price (1.0 above) into other schedules in the following manner. Separate orders will be placed by BHEL based on subsequent break-up of prices.	
3.1	SCH-2 - Total price break-up..	
3.2	SCH-3 - Supply price break-up.	
3.3	SCH-4 - Service price break-up.	
3.4	SCH-5 - Unit rate items (Optional).	
3.5	SCH-6 - Import content.	
4.0	Break-up of prices of 1.1 & 1.2 should match with 1.0.	
5.0	Subsequent break-up prices shall match with corresponding previous prices.	
6.0	If freight component is not specifically indicated, 2 % of total amount will be considered as freight component against each item for further processing.	
7.0	Bidder shall supply special tools & tackles for maintenance as per technical specification, if specified, price of which shall be indicated in the relevant schedule, else their price quoted shall be deemed to be inclusive of this price for special tools & tackle for maintenance. In case bidder do not specify price component (together with item-wise details) or indicate `NA', etc in the relevant schedule for special tools & tackles for maintenance, they have to supply such items, if required on detail engineering, at no extra cost to BHEL.	
8.0	In case bidder do not indicate price component (together with item-wise details) or indicate `NA', etc in the relevant schedule for start-up & commissioning spares, they have to supply such items such items, as per requirement for completion of the package, at no extra cost to BHEL.	
9.0	In case bidder do not indicate price component or indicate `NA', etc in the relevant schedule for any other items component required for completion of package, they have to supply & execute such items, if required on detail engineering for completion of the package, at no extra cost to BHEL.	

SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	TOTAL QUOTED PRICE ()
10.0	Unit rates/ prices, if included, shall not be considered for evaluation. Unit rates/ prices for items shall be applied for addition/ deletion of scope and rates shall be valid through out the contract period, including extension.	
11.0	Other optional items, if included, shall not be considered for evaluation.	
12.0	BHEL reserve the right to rationalize the rates, quoted by L-1 bidder against unit rate items and/ or other optional items with respect to item-wise lowest rates (amongst the participating bidders), before placement of order.	
13.0	BHEL shall issue requisite document, if required, for imported items, if included, limited to the CIF values furnished by bidder in the relevant schedule.	
14.0	Any item as per scope of work if not included in the price quoted above and shown separately will not be taken cognizance of and the offer shall be liable for rejection.	
15.0	Price format shall not be changed by bidder in any case, since it may lead to cancellation of bidder's offer.	

VOLUME-III					
PRICE SCHEDULE, REV-1					
Design, engineering, manufacturing, supply, erection, commissioning etc of Fire Protection System for 2x500 MW units at Sagardighi STPP, WB.					
TENDER NO - PSER:SCT:SDG-M1335:12					
SCH-2 - TOTAL PRICE BREAK-UP					
SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	QUOTED PRICE (₹)			
		BASIC PRICE	CST (As per tender)	FREIGHT	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)=(3) ~ (5)
1.1	Total price for supply part for design, engineering, manufacturing, inspection & testing at manufacturer's/ sub-vendor's works, painting, supply/ delivery duly packed at project site including freight, etc in line with drawings/ documents/ test procedures approved by BHEL/ customer, including supply of consumables, first fill lubricants, start-up & commissioning spares, special tools & tackles for maintenance, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date for Fire Protection System.				
1.2	Total price for service part for receipt, unloading, storage & handling at site, erection, commissioning, load testing, trial run, PG/ acceptance test, handing over to customer, etc in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date for Fire Protection System.		NA		
TOTAL					

VOLUME-III							
PRICE SCHEDULE, REV-1							
Design, engineering, manufacturing, supply, erection, commissioning etc of Fire Protection System for 2x500 MW units at Sagardighi STPP, WB.							
TENDER NO - PSER:SCT:SDG-M1335:12							
SCH-3 - SUPPLY PRICE BREAK-UP							
SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	QUANTITY	QUOTED PRICE (₹)				
			BASIC PRICE	CST (As per tender)	FREIGHT	TOTAL PRICE	
			(1)	(2)	(3)	(4)=(1) ~ (3)	
Price break-up of 1.1 of SCH-2.							
1.1.1	Fire water pump house equipments including control and instrumentation as specified.	1	LOT				
1.1.2	Hydrant system piping and accessories as specified.	1	LOT				
1.1.3	Water spray system piping and accessories comprising of HVW and MVW spray systems and sprinkler system as specified.	1	LOT				
1.1.4	Fire booster pump house equipments including control and instrumentation as specified.	1	LOT				
1.1.5	Fire detection and alarm system as specified.	1	LOT				
1.1.6	Foam system as specified.	1	LOT				
1.1.7	Inert gas extinguishing system as specified.	1	LOT				
1.1.8	Total price for special tools & tackles for maintenance. (Bidder to submit item-wise un-priced break-up in techno-commercial offer and price offer).	1	LOT				
1.1.9	Total price for start-up and commissioning spares. (Bidder to submit item-wise un-priced break-up in techno-commercial offer and price offer)	1	LOT				
1.1.10	Any other item not indicated above, but required to complete the system as per system requirements. (Bidder to submit item-wise un-priced break-up in techno-commercial offer and price offer)	1	LOT				
TOTAL							

**VOLUME-III
PRICE SCHEDULE, REV-1**

Design, engineering, manufacturing, supply, erection, commissioning etc of Fire Protection System for 2x500 MW units at Sagardighi STPP, WB.

TENDER NO - PSER:SCT:SDG-M1335:12

SCH-4 - SERVICE PRICE BREAK-UP

SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	QUANTITY	QUOTED PRICE ()
Price break-up of 1.2 of SCH-2.			
1.2.1	Fire water pump house equipments including control and instrumentation as specified.	1	LOT
1.2.2	Hydrant system piping and accessories as specified.	1	LOT
1.2.3	Water spray system piping and accessories comprising of HVW and MVW spray systems and sprinkler system as specified.	1	LOT
1.2.4	Fire booster pump house equipments including control and instrumentation as specified.	1	LOT
1.2.5	Fire detection and alarm system as specified.	1	LOT
1.2.6	Foam system as specified.	1	LOT
1.2.7	Inert gas extinguishing system as specified.	1	LOT
1.2.8	Any other item not indicated above, but required to complete the system as per system requirements. (Bidder to submit item-wise un-priced break-up in techno-commercial offer and price offer)		
TOTAL			

**VOLUME-III
PRICE SCHEDULE, REV-1**

Design, engineering, manufacturing, supply, erection, commissioning etc of Fire Protection System for 2x500 MW units (Unit # 3 & 4) at Sagardighi STPP, WB.

TENDER NO - PSER:SCT:SDG-M1335:12

SCH-5 - UNIT RATE ITEM (OPTIONAL)

SL NO	DESCRIPTION OF ITEM	UNIT	QUOTED UNIT RATES (Rs)					
			SUPPLY PART				SERVICE PART	TOTAL (SUPPLY & SERVICE PARTS)
			BASIC PRICE	CST (As per tender)	FREIGHT	TOTAL		
1.0	Motor operated isolation valve							
1.1	350 mm NB	each						
1.2	300 mm NB	each						
1.3	250 mm NB	each						
1.4	200 mm NB	each						
1.5	150 mm NB	each						
1.6	100 mm NB	each						
2.0	CI gate valves O, S & Y type complete with companion flanges, nuts, bolts & gaskets							
2.1	600 mm NB	each						
2.2	550 mm NB	each						
2.3	500 mm NB	each						
2.4	450 mm NB	each						
2.5	400 mm NB	each						
2.6	350 mm NB	each						
2.7	300 mm NB	each						
2.8	250 mm NB	each						
2.9	200 mm NB	each						
2.10	150 mm NB	each						
2.11	100 mm NB	each						
2.12	80 mm NB	each						
1.13	50 mm NB	each						
3.0	CI non-return valves swing check type complete with companion flanges, nuts, bolts & gaskets							

SL NO	DESCRIPTION OF ITEM	UNIT	QUOTED UNIT RATES (Rs)				
			SUPPLY PART			SERVICE PART	TOTAL (SUPPLY & SERVICE PARTS)
			BASIC PRICE	CST (As per tender)	FREIGHT		
3.1	600 mm NB	each					
3.2	550 mm NB	each					
3.3	500 mm NB	each					
3.4	450 mm NB	each					
3.5	400 mm NB	each					
3.6	350 mm NB	each					
3.7	300 mm NB	each					
3.8	250 mm NB	each					
3.9	200 mm NB	each					
3.10	150 mm NB	each					
3.11	100 mm NB	each					
3.12	80 mm NB	each					
4.0	Butterfly valves						
4.1	300 mm NB	each					
4.2	250 mm NB	each					
4.3	200 mm NB	each					
4.5	150 mm NB	each					
4.6	100 mm NB	each					
4.7	80 mm NB	each					
5.0	Pressure relief valves						
5.1	300 mm NB	each					
5.2	250 mm NB	each					
5.3	200 mm NB	each					
5.4	150 mm NB	each					
5.5	100 mm NB	each					
5.6	80 mm NB	each					
5.7	50 mm NB	each					
5.8	40 mm NB	each					
5.9	25 mm NB	each					

SL NO	DESCRIPTION OF ITEM	UNIT	QUOTED UNIT RATES (Rs)					
			SUPPLY PART			SERVICE PART	TOTAL (SUPPLY & SERVICE PARTS)	
			BASIC PRICE	CST (As per tender)	FREIGHT			TOTAL
6.0	Flow meter	each						
7.0	Basket strainer complete with companion flanges, nuts, bolts, gasket etc							
7.1	500 mm NB	each						
7.2	450 mm NB	each						
7.3	400 mm NB	each						
7.4	350 mm NB	each						
7.5	300 mm NB	each						
7.6	250 mm NB	each						
7.7	200 mm NB	each						
8.0	Air release valve							
8.1	40 mm NB	each						
8.2	25 mm NB	each						
9.0	Above ground piping of mild steel as per IS:1239 (Part-I) heavy grade (up to 150 mm NB) with fittings, aux pipe supports, painting etc							
9.1	150 mm NB	Mtr.						
9.2	100 mm NB	Mtr.						
9.3	80 mm NB	Mtr.						
9.4	65 mm NB	Mtr.						
9.5	50 mm NB	Mtr.						
9.6	40 mm NB	Mtr.						
9.7	25 mm NB	Mtr.						
10.0	Above ground piping of mild steel as per IS:3589 (above 200 mm NB) with fittings, aux pipe supports, painting etc							
10.1	500 mm NB	Mtr.						
10.2	450 mm NB	Mtr.						
10.3	400 mm NB	Mtr.						
10.4	350 mm NB	Mtr.						
10.5	300 mm NB	Mtr.						
10.6	250 mm NB	Mtr.						
10.7	200 mm NB	Mtr.						

SL NO	DESCRIPTION OF ITEM	UNIT	QUOTED UNIT RATES (Rs)				SERVICE PART	TOTAL (SUPPLY & SERVICE PARTS)
			SUPPLY PART					
			BASIC PRICE	CST (As per tender)	FREIGHT	TOTAL		
11.0	Above ground piping of mild steel as per IS:1239 (Part-I) heavy grade (up to 150 mm NB) & galvanised with fittings, aux pipe supprots, painting etc							
11.1	150 mm NB	Mtr.						
11.2	100 mm NB	Mtr.						
11.3	80 mm NB	Mtr.						
11.4	65 mm NB	Mtr.						
11.5	50 mm NB	Mtr.						
11.6	40 mm NB	Mtr.						
11.7	25 mm NB	Mtr.						
12.0	Above ground piping of mild steel as per IS:3589 (above 200 mm NB) & galvanised with fittings, aux pipe supprots, painting etc							
12.1	500 mm NB	Mtr.						
12.2	450 mm NB	Mtr.						
12.3	400 mm NB	Mtr.						
12.4	350 mm NB	Mtr.						
12.5	300 mm NB	Mtr.						
12.6	250 mm NB	Mtr.						
12.7	200 mm NB	Mtr.						
13.0	Pressure switch	each						
14.0	Pressure gauge	each						
15.0	Level gauge	each						
16.0	Horizontal type fire water booster pump of capacity							
16.1	Hydrant system capacity of 171 M3/ hr x head 45 MWC	each						
16.2	Water spray system capacity of 410 M3/ hr x head 45 MWC	each						
17.0	Electric motor for fire booster pump							
17.1	For hydrant pump at 16.1	each						
17.2	For spray pump at 16.2	each						
18.0	Diesel engine for standby booster pump							
18.1	For hydrant booster pump at 16.1	each						

SL NO	DESCRIPTION OF ITEM	UNIT	QUOTED UNIT RATES (Rs)					
			SUPPLY PART			SERVICE PART	TOTAL (SUPPLY & SERVICE PARTS)	
			BASIC PRICE	CST (As per tender)	FREIGHT			TOTAL
18.2	For spray booster pump at 16.2	each						
19.0	Diesel engine local control panel for diesel engine driven fire booster pump with two sets of batteries (Lead acid type) and battery chargers as specified	each						
20.0	PLC based dual redundant common control cum annunciation panel for booster pump house equipments as specified	each						
21.0	Single headed hydrant valves (SS) with matcing frame, nuts & bolts (wet barrel type, valve conforming to IS:5290)	each						
22.0	Double headed Hydrant Valves(SS) with matching frame, nuts & bolts (wet barrel type, valve conforming to IS:5290)	each						
23.0	Water monitor (32 mm bore) with isolation valve							
23.1	100 mm NB inlet	each						
23.2	150 mm NB inlet	each						
24.0	Foam cum water monitor (32 mm bore) (as per spec)							
24.1	100 mm NB inlet	each						
25.0	Pick tube for foam cum water monitor at sl no 26	each						
26.0	Hose pipe as per IS:636, 15 m long with SS 304 instantanous coupling type-A	each						
27.0	Hose reel cabinet with hose reel having 32mm dia X 36.5 mtr. Length hose pipe, nozzle & isolation valve	each						
28.0	Orifice plate (SS-316)	each						
29.0	Fire brigade connection with CI gate valve & non return valve	each						
30.0	Coating & wrapping material for underground pipe protection (as per IS:10221)							
30.1	Double coat & double wrap	sqm						
30.2	Treble coat & treble wrap	sqm						
31.0	Branch pipe (SS-304) as per IS:2871 with nozzle	each						
32.0	Hose box for external hydrants(steel fabricated)	each						
33.0	Hose box for indoor hydrants (steel fabricated)	each						
34.0	Hydrant wrench	each						
35.0	Foam making branch pipe	each						
36.0	Fog nozzle	each						

SL NO	DESCRIPTION OF ITEM	UNIT	QUOTED UNIT RATES (Rs)					
			SUPPLY PART				SERVICE PART	TOTAL (SUPPLY & SERVICE PARTS)
			BASIC PRICE	CST (As per tender)	FREIGHT	TOTAL		
37.0	Hume pipes							
37.1	NP2 class	Mtr.						
37.2	NP3 class	Mtr.						
38.0	Central hose station as per TAC	each						
39.0	Differential pressure indicators	each						
40.0	Indicator post	each						
41.0	Solenoid valve actuated pneumatically/ hydraulically deluge valve with trim, water motor gong and other accessories complete with companion flanges, nuts, bolts, gaskets etc							
41.1	200 mm NB	each						
41.2	150 mm NB	each						
41.3	100 mm NB	each						
41.4	80 mm NB	each						
41.5	50 mm NB	each						
42.0	Alarm valve with trim, water motor gong and other accessories complete with companion flanges, nuts, bolts, gaskets etc							
42.1	200 mm NB	each						
42.2	150 mm NB	each						
42.3	100 mm NB	each						
42.4	80 mm NB	each						
42.5	50 mm NB	each						
43.0	MVW spray nozzle	each						
44.0	HVW spray nozzle	each						
45.0	Water curtain nozzle	each						
46.0	GI piping with fittings							
46.1	200 mm NB	Mtr.						
46.2	150 mm NB	Mtr.						
46.3	100 mm NB	Mtr.						
46.4	80 mm NB	Mtr.						

SL NO	DESCRIPTION OF ITEM	UNIT	QUOTED UNIT RATES (Rs)					
			SUPPLY PART				SERVICE PART	TOTAL (SUPPLY & SERVICE PARTS)
			BASIC PRICE	CST (As per tender)	FREIGHT	TOTAL		
46.5	65 mm NB	Mtr.						
46.6	50 mm NB	Mtr.						
46.7	40 mm NB	Mtr.						
46.8	25 mm NB	Mtr.						
47.0	Local control panel for deluge valve	each						
48.0	Y' type strainers complete with companion flanges,nuts,bolts,gaskets etc							
48.1	200 mm dia	each						
48.2	150 mm dia	each						
48.3	100 mm dia	each						
48.4	80 mm dia	each						
48.5	50 mm dia	each						
49.0	Analogue addressable optical smoke detector with base	each						
50.0	Analogue addressable multisensor detector with base	each						
51.0	Explosion proof type heat detector (probe type detector) with base	each						
52.0	Electronic hooter	each						
53.0	Response indicator	each						
54.0	Abort switch	each						
55.0	Release switch	each						
56.0	Output module	each						
57.0	Solenoid valve monitoring module	each						
58.0	Input module	each						
59.0	Isolator module	each						
60.0	Siren having range (Diametrically)							
60.1	2 kilometers	each						
60.2	3 kilometers	each						
60.3	5 kilometers	each						
61.0	Flame proof junction box	each						
62.0	Optical linear heat sensing cable	per mtr.						
63.0	MICC cable (500 V grade) for control purpose							

SL NO	DESCRIPTION OF ITEM	UNIT	QUOTED UNIT RATES (Rs)					
			SUPPLY PART			SERVICE PART	TOTAL (SUPPLY & SERVICE PARTS)	
			BASIC PRICE	CST (As per tender)	FREIGHT			TOTAL
63.1	2Cx1.5 sqmm	per mtr.						
63.2	3Cx1.5 sqmm	per mtr.						
63.3	4Cx1.5 sqmm	per mtr.						
63.4	5Cx1.5 sqmm	per mtr.						
63.5	7Cx1.5 sqmm	per mtr.						
64.0	MICC cable (750 V grade) for power supply							
64.1	2Cx2.5 sqmm	per mtr.						
64.2	3Cx2.5 sqmm	per mtr.						
64.3	4Cx2.5 sqmm	per mtr.						
65.0	Interface unit for linear heat sensing cable	each						
66.0	Interface unit for probe type detector	each						
67.0	Analogue addressable heat detector with base	each						
68.0	Quartzoid bulb sprinkler	each						
69.0	Addressable manual call points	each						
70.0	Quartzoid bulb type heat detector	each						
71.0	Junction box							
71.1	Weather proof type	each						
71.2	Flame proof type	each						
72.0	FRLS screened control cables (armoured)							
72.1	2Cx1.5 sqmm	per mtr.						
72.2	3Cx1.5 sqmm	per mtr.						
72.3	4Cx1.5 sqmm	per mtr.						
72.4	5Cx1.5 sqmm	per mtr.						
72.5	7Cx1.5 sqmm	per mtr.						
73.0	Interface unit for non addressable device	each						
74.0	Complete microprocessor based analogue addressable LCD fire alarm panel with 2x100% batteries (Ni Cd type) and 2x100% battery chargers							
74.1	2 loop panel	each						
74.2	3 loop panel	each						

SL NO	DESCRIPTION OF ITEM	UNIT	QUOTED UNIT RATES (Rs)				
			SUPPLY PART			SERVICE PART	TOTAL (SUPPLY & SERVICE PARTS)
			BASIC PRICE	CST (As per tender)	FREIGHT		
74.3	4 loop panel	each					
74.4	5 loop panel	each					
74.5	6 loop panel	each					
74.6	8 loop panel	each					
74.7	10 loop panel	each					
74.8	20 loop panel	each					
75.0	Graphic work station complete with PC, Software & printer as specified	each					
76.0	Complete microprocessor based analogue addressable LCD repeater panel with 2x100% batteries (Ni Cd type) and 2x100% battery chargers	each					
77.0	FRLS type unscreened control cables (armoured)						
77.1	2Cx2.5 sqmm	per mtr.					
77.2	2Cx1.5 sqmm	per mtr.					
78.0	Beam type detector with accessories	each					
79.0	ABOVE GROUND PIPES (as aper ASTM A106Gr.A/B)**						
79.1	100NB - A 106 GR.B.	mtr					
79.2	80NB - A 106 GR.B.	mtr					
79.3	65NB - A 106 GR.B.	mtr					
79.4	50NB - A 106 GR.B.	mtr					
79.5	40NB - A 106 GR.B.	mtr					
79.5	32NB - A 106 GR.B.	mtr					
79.6	25NB - A 106 GR.B.	mtr					
79.6	20NB - A106 GR.B.	mtr					
79.7	100NB - A 106 GR.B.	mtr					
79.8	80NB - A 106 GR.B.	mtr					

**VOLUME-III
PRICE SCHEDULE, REV-1**

Design, engineering, manufacturing, supply, erection, commissioning etc of Fire Protection System for 2x500 MW units at Sagardighi STPP, WB.

TENDER NO - PSER:SCT:SDG-M1335:12

SCH-6 - IMPORT CONTENT

SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	ALL INCLUSIVE PRICE (As per tender)
1.0	Total price (in terms of `Euro/US \$' and correspondingly in INR as on date) for supply of import content, as required, for total scope defined as per technical specification and terms & conditions of tender taking into account all clarifications, confirmations and agreements till date. (Bidder shall furnish item-wise break-up in a separate sheet)	
1.1.1	In Euro.	
1.1.2	In INR (Corresponding to 1.1.1).	
1.2.1	In US \$.	
1.2.2	In INR (Corresponding to 1.2.1).	
1.3	Total in INR (1.1.2 + 1.2.2).	
NOTE		
1.0	Bidder's quoted price in various schedules shall be inclusive of above total price for import component at sl no 1.3 above.	
2.0	Bidder shall furnish item-wise break-up of imported items.	

FORMAT FOR NO DEVIATION CERTIFICATE
(To be submitted in the bidder's letter head)

BHARAT HEAVY ELECTRICALS LIMITED,
Power Sector - Eastern Region,
Plot no 9/1, DJ Block, Sector – II, Salt Lake City,
Kolkata – 700 091

Sub	No Deviation Certificate.	
Job	Design, engineering, manufacturing, supply, erection, commissioning etc of Fire Protection System for 2x500 MW units (Unit#3&4) at Sagardighi STPP, WB.	
Ref	1.0	Tender no PSER:SCT:SDG-M1335:12
	2.0	BHEL's NIT, vide reference no PSER:SCT:SDG-M1335:2792, dated 16-04-2012.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:SDG-M1335:TCN-01, dated 05-05-2012.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:SDG-M1335:TCN-02, dated 15-05-2012.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:SDG-M1335:TCN-03, dated 23-05-2012
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:SDG-M1335:TCN-04, dated 24-05-2012
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:SDG-M1335:TCN-05, dated 25-05-2012
	8.0	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION DJ-9/1, SECTOR-II, SALTLAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691, 23211798, 23211796

(Signature, date & seal of authorized
representative of the bidder)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION DJ 9/1, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691/ 1684