CORRIGENDUM-2 & ATC

1. **BOQ mentioned along with Corrigendum-2 and Vendor List attached with Corrigendum-1 shall be considered for submission of offer.**

2. **Refer Amendment-2 to PEMC-07791(BOQ) & Amendment-2 to PEMC-07792 details (BOQ) attached with file.**

3. **ATC Attached with original tender documents remains unchanged. However same is once again attached with this document.**

AMENDMENT-2 TO PEMC-07791- R00 (JOB SPECIFICATION FOR GENERATOR INTEGRAL PIPING PACKAGE)

ENQUIRY NO.: GEM/2024/B/5737519 DATED 21.12.2024

PROJECT : NTPC 2x800MW Lara Super Thermal Power Plant

CUSTOMER : NTPC

Sl. No.	Specification No. & Detail		Clause No.	Original Description/Requirement	New Description/Requirement
1.	Annexure-A to PEMC-07791-R00	BOQ cum Price Bid Format to be followed by the Bidder	5, Sl. No 2	Annexure-A : BOQ Sheet / Price Bid Format	Annexure-A (Rev-02): BOQ Sheet / Price Bid Format { (1. Annexure-A (Rev-01) of amendment-1 dated 04-01-25 is superseded by Annexure-A (Rev-02) attached with Amendment-2. (2. Changes in Annexure-A (Rev-02) are highlighted with Yellow color for ease of understanding of the Bidders. }

All other details shall be followed as per the Job Specification PEMC-07791 and its annexures & Sl. No.2 of Amendment-01 notified dated 04-01-25.

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	**11**	**76(SOU AIR SIDE)TO 72(SOVR)**												
SOS	1	later	PIPE SS	76.1X4		30	30	60	Mtr.	ASTM A312 TP321	7.12	426.900		0.019232
SOS	2	later	SS BEND 90 DEG	76.1X4		8	8	16	No.	A403 WP321, ASME B16.9	1.00	16.000		0.000721
SOS	3	later	SS REDUCER	88.9X76.1X3.6		1	1	2	No.	A403 WP321, ASME B16.9	0.50	1.000		0.000045
SOS	4	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	08	10	10	20	No.	ASTM A182 F321	2.67	53.400		0.002406
SOS	5	later	GASKET	31493201297	1	5	5	10	No.	HW59870	0.03	0.320		0.000014
SOS	6	later	SCRU HEX	A- 8.8 M16X75		40	40	80	No.	IS:1364PART-2,1367PART-3	0.15	12.000		0.000541
SOS	7	later	NUT HEX	A-8 M16		40	40	80	No.	IS:1364PART-3,1367PART-3	0.03	2.720		0.000123
SOS	8	later	WASHER MCD-ST	17		80	80	160	No.	IS:2016-1967	0.01	1.760		0.000079
SOS	9	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	08	1	1	2	No.	ASTM A182 F321	2.67	5.340		0.000241
SOS	10	later	GASKET	31493201297	1	1	1	2	No.	HW59870	0.03	0.064		0.000003
SOS	11	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	12	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	13	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	**12**	**80(SOUA) TO U-LOOP SOST**												
SOS	1	later	PIPE SS	76.1X4		40	40	80	Mtr.	ASTM A312 TP321	7.12	569.200		0.025642
SOS	2	later	SS BEND 90 DEG	76.1X4		10	10	20	No.	A403 WP321, ASME B16.9	1.00	20.000		0.000901
SOS	3	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	08	12	12	24	No.	ASTM A182 F321	2.67	64.080		0.002887
SOS	5	later	SCRU HEX	A- 8.8 M16X75		48	48	96	No.	IS:1364PART-2,1367PART-3	0.15	14.400		0.000649
SOS	6	later	NUT HEX	A-8 M16		48	48	96	No.	IS:1364PART-3,1367PART-3	0.03	3.264		0.000147
SOS	7	later	WASHER MCD-ST	17		96	96	192	No.	IS:2016-1967	0.01	2.112		0.000095
SOS	48	later	GASKET	31493201297	1	6	6	12	No.	HW59870	0.03	0.384		0.000017
SOS	**13**	**283 (SOUA) TO 467 (SOST)**												
SOS	1	later	PIPE SS	76.1X4		40	40	80	Mtr.	ASTM A312 TP321	7.12	569.200		0.025642
SOS	2	later	SS BEND 90 DEG	76.1X4		12	12	24	No.	A403 WP321, ASME B16.9	1.00	24.000		0.001081
SOS	3	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	08	12	12	24	No.	ASTM A182 F321	2.67	64.080		0.002887
SOS	4	later	GASKET	31493201297	1	6	6	12	No.	HW59870	0.03	0.384		0.000017
SOS	5	later	SCRU HEX	A- 8.8 M16X75		48	48	96	No.	IS:1364PART-2,1367PART-3	0.15	14.400		0.000649
SOS	6	later	NUT HEX	A-8 M16		48	48	96	No.	IS:1364PART-3,1367PART-3	0.03	3.264		0.000147
SOS	7	later	WASHER MCD-ST	17		96	96	192	No.	IS:2016-1967	0.01	2.112		0.000095
SOS	8	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	08	1	1	2	No.	ASTM A182 F321	2.67	5.340		0.000241
SOS	9	later	GASKET	31493201297	1	1	1	2	No.	HW59870	0.03	0.064		0.000003
SOS	10	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	11	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	12	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	**14**	**419(SOUA) TO TERM 294(SOST)**												
SOS	1	later	PIPE SS	114.3X3.6		40	40	80	Mtr.	ASTM A312 TP321	9.83	786.480		0.035430
SOS	2	later	SS BEND 90 DEG	114.3X3.6		12	12	24	No.	A403 WP321, ASME B16.9	2.70	64.800		0.002919
SOS	3	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	10	10	10	20	No.	ASTM A182 F321	3.62	72.400		0.003262
SOS	4	later	GASKET	31493201297	3	50	50	100	No.	HW59870	0.04	3.700		0.000167
SOS	5	later	SCRU HEX	A- 8.8 M16X80		80	80	160	No.	IS:1364PART-2,1367PART-3	0.15	24.000		0.001081
SOS	6	later	NUT HEX	A-8 M16		80	80	160	No.	IS:1364PART-3,1367PART-3	0.03	5.440		0.000245
SOS	7	later	WASHER MCD-ST	17		160	160	320	No.	IS:2016-1967	0.01	3.520		0.000159
SOS	8	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	19	2	2	4	No.	ASTM A182 F321	3.78	15.120		0.000681
SOS	9	later	GASKET	31493201297	3	2	2	4	No.	HW59870	0.04	0.148		0.000007
SOS	10	later	SCRU HEX	A- 8.8 M16X90		16	16	32	No.	IS:1364PART-2,1367PART-3	0.16	5.120		0.000231
SOS	11	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-3,1367PART-3	0.03	1.088		0.000049
SOS	12	later	WASHER MCD-ST	17		32	32	64	No.	IS:2016-1967	0.01	0.704		0.000032
SOS	**15**	**70A(SOVR) TO TERM 6A/6C(GEN)**												
SOS	1	later	PIPE SS	33.7X2.6		30	30	60	Mtr.	ASTM A312 TP321	2.00	119.700		0.005392
SOS	2	later	SS REDUCER	48.3X33.7X4		3	3	6	No.	A182F321, ASME B16.11	0.50	3.000		0.000135
SOS	3	later	S.S.TEE	33.7X33.7X4		1	1	2	No.	A182F321, ASME B16.11	0.43	0.860		0.000039
SOS	4	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
SOS	5	later	GASKET	31493201297	4	1	1	2	No.	HW59870	0.01	0.022		0.000001
SOS	6	later	SCRU HEX	A- 8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.07	0.560		0.000025
SOS	7	later	NUT HEX	A-8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.02	0.136		0.000006
SOS	8	later	WASHER MCD-ST	13		8	8	16	No.	IS:2016-1967	0.01	0.096		0.000004
SOS	9	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	10	10	20	No.	ASTM A182 F321	1.02	20.400		0.000919

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	10	later	GASKET	31493201297	4	5	5	10	No.	HW59870	0.01	0.110		0.000005
SOS	11	later	SCRU HEX	A- 8.8 M12X65		20	20	40	No.	IS:1364PART-2,1367PART-3	0.07	2.800		0.000126
SOS	12	later	NUT HEX	A-8 M12		20	20	40	No.	IS:1364PART-3,1367PART-3	0.02	0.680		0.000031
SOS	13	later	WASHER MCD-ST	13		40	40	80	No.	IS:2016-1967	0.01	0.480		0.000022
SOS	14	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	15	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	16	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	17	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	18	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	19	later	PIPE SS	48.3X4		1	1	2	Mtr.	ASTM A312 TP321	4.43	8.860		0.000399
SOS	**16**	**69A(SOVR) TO TERM 5A/5C(GEN)**												
SOS	1	later	PIPE SS	60.3X4		34	34	68	Mtr.	ASTM A312 TP321	5.55	377.400		0.017002
SOS	2	later	SS BEND 90 DEG	60.3X4		10	10	20	No.	A403 WP321, ASME B16.9	0.90	18.000		0.000811
SOS	3	later	SS REDUCER	60.3X48.3X4		2	2	4	No.	A182F321, ASME B16.11	0.50	2.000		0.000090
SOS	4	later	S.S.TEE	60.3.X60.3X4		1	1	2	No.	A403 WP321, ASME B16.9	1.49	2.980		0.000134
SOS	5	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	1	1	2	No.	ASTM A182 F321	2.18	4.360		0.000196
SOS	6	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000002
SOS	7	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	8	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	9	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	10	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	10	10	20	No.	ASTM A182 F321	2.18	43.600		0.001964
SOS	11	later	GASKET	31493201297	0	5	5	10	No.	HW59870	0.02	0.200		0.000009
SOS	12	later	SCRU HEX	A- 8.8 M16X75		20	20	40	No.	IS:1364PART-2,1367PART-3	0.15	6.000		0.000270
SOS	13	later	NUT HEX	A-8 M16		20	20	40	No.	IS:1364PART-3,1367PART-3	0.03	1.360		0.000061
SOS	14	later	WASHER MCD-ST	17		40	40	80	No.	IS:2016-1967	0.01	0.880		0.000040
SOS	15	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	16	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	17	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	18	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	19	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	20	later	PIPE SS	48.3X4		1	1	2	Mtr.	ASTM A312 TP321	4.43	8.860		0.000399
SOS	**17**	**TERM.68A (SOVR) TO 4A/4C**												
SOS	1	later	PIPE SS	60.3X4		34	34	68	Mtr.	ASTM A312 TP321	5.55	377.400		0.017002
SOS	2	later	SS BEND 90 DEG	60.3X4		12	12	24	No.	A403 WP321, ASME B16.9	0.90	21.600		0.000973
SOS	3	later	SS REDUCER	60.3X48.3X4		2	2	4	No.	A182F321, ASME B16.11	0.50	2.000		0.000090
SOS	4	later	S.S.TEE	60.3.X60.3X4		1	1	2	No.	A403 WP321, ASME B16.9	1.49	2.980		0.000134
SOS	5	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	1	1	2	No.	ASTM A182 F321	2.18	4.360		0.000196
SOS	6	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000002
SOS	7	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	8	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	9	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	10	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	10	10	20	No.	ASTM A182 F321	2.18	43.600		0.001964
SOS	11	later	GASKET	31493201297	0	5	5	10	No.	HW59870	0.02	0.200		0.000009
SOS	12	later	SCRU HEX	A- 8.8 M16X75		20	20	40	No.	IS:1364PART-2,1367PART-3	0.15	6.000		0.000270
SOS	13	later	NUT HEX	A-8 M16		20	20	40	No.	IS:1364PART-3,1367PART-3	0.03	1.360		0.000061
SOS	14	later	WASHER MCD-ST	17		40	40	80	No.	IS:2016-1967	0.01	0.880		0.000040
SOS	15	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	16	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	17	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	18	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	19	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	20	later	PIPE SS	48.3X4		1	1	2	Mtr.	ASTM A312 TP321	4.43	8.860		0.000399
SOS	**18**	**TERM.69B (SOVR) TO 5D/5B**												
SOS	1	later	PIPE SS	60.3X4		25	25	50	Mtr.	ASTM A312 TP321	5.55	277.500		0.012501
SOS	2	later	SS BEND 90 DEG	60.3X4		8	8	16	No.	A403 WP321, ASME B16.9	0.90	14.400		0.000649
SOS	3	later	SS REDUCER	60.3X48.3X4		2	2	4	No.	A182F321, ASME B16.11	0.50	2.000		0.000090
SOS	4	later	S.S.TEE	60.3.X60.3X4		1	1	2	No.	A403 WP321, ASME B16.9	1.49	2.980		0.000134
SOS	5	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	1	1	2	No.	ASTM A182 F321	2.18	4.360		0.000196
SOS	6	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000002

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	7	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	8	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	9	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	10	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	10	10	20	No.	ASTM A182 F321	2.18	43.600		0.001964
SOS	11	later	GASKET	31493201297	0	5	5	10	No.	HW59870	0.02	0.200		0.000009
SOS	12	later	SCRU HEX	A- 8.8 M16X75		20	20	40	No.	IS:1364PART-2,1367PART-3	0.15	6.000		0.000270
SOS	13	later	NUT HEX	A-8 M16		20	20	40	No.	IS:1364PART-3,1367PART-3	0.03	1.360		0.000061
SOS	14	later	WASHER MCD-ST	17		40	40	80	No.	IS:2016-1967	0.01	0.880		0.000040
SOS	15	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	16	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	17	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	18	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	19	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	20	later	PIPE SS	48.3X4		1	1	2	Mtr.	ASTM A312 TP321	4.43	8.860		0.000399
SOS	**19**	**TERM. 68B (SOVR) TO 4B/4D**												
SOS	1	later	PIPE SS	60.3X4		27	27	54	Mtr.	ASTM A312 TP321	5.55	299.700		0.013501
SOS	2	later	SS BEND 90 DEG	60.3X4		10	10	20	No.	A403 WP321, ASME B16.9	0.90	18.000		0.000811
SOS	3	later	SS REDUCER	60.3X48.3X4		2	2	4	No.	A182F321, ASME B16.11	0.50	2.000		0.000090
SOS	4	later	S.S.TEE	60.3.X60.3X4		1	1	2	No.	A403 WP321, ASME B16.9	1.49	2.980		0.000134
SOS	5	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	1	1	2	No.	ASTM A182 F321	2.18	4.360		0.000196
SOS	6	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000002
SOS	7	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	8	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	9	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	10	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	10	10	20	No.	ASTM A182 F321	2.18	43.600		0.001964
SOS	11	later	GASKET	31493201297	0	5	5	10	No.	HW59870	0.02	0.200		0.000009
SOS	12	later	SCRU HEX	A- 8.8 M16X75		20	20	40	No.	IS:1364PART-2,1367PART-3	0.15	6.000		0.000270
SOS	13	later	NUT HEX	A-8 M16		20	20	40	No.	IS:1364PART-3,1367PART-3	0.03	1.360		0.000061
SOS	14	later	WASHER MCD-ST	17		40	40	80	No.	IS:2016-1967	0.01	0.880		0.000040
SOS	15	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	16	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	17	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	18	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	19	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	20	later	PIPE SS	48.3X4		1	1	2	Mtr.	ASTM A312 TP321	4.43	8.860		0.000399
SOS	**20**	**TERM 69D(SOVR) TO 12B(GEN)**												
SOS	1	later	PIPE SS	13.7X1.65		21	21	42	Mtr.	ASTM A312 TP321	0.49	20.580		0.000927
SOS	2	later	ADAPTOR	41531401125		1	1	2	No.		0.20	0.400		0.000018
SOS	3	later	SS REDUCER	21.3X13.5X2		1	1	2	No.	A182F321, ASME B16.11	0.10	0.200		0.000009
SOS	**21**	**TERM 68D(SOVR) TO 14B(GEN)**												
SOS	1	later	PIPE SS	13.7X1.65		25	25	50	Mtr.	ASTM A312 TP321	0.49	24.500		0.001104
SOS	2	later	ADAPTOR	41531401125		1	1	2	No.		0.20	0.400		0.000018
SOS	3	later	SS REDUCER	21.3X13.5X2		1	1	2	No.	A182F321, ASME B16.11	0.10	0.200		0.000009
SOS	**22**	**TERM 69C(SOVR) TO 12A(GEN)**												
SOS	1	later	PIPE SS	13.7X1.65		30	30	60	Mtr.	ASTM A312 TP321	0.49	29.400		0.001324
SOS	2	later	ADAPTOR	41531401125		1	1	2	No.		0.20	0.400		0.000018
SOS	3	later	SS REDUCER	21.3X13.5X2		1	1	2	No.	A182F321, ASME B16.11	0.10	0.200		0.000009
SOS	**23**	**TERM 68C(SOVR) TO 14A(GEN)**												
SOS	1	later	PIPE SS	13.7X1.65		30	30	60	Mtr.	ASTM A312 TP321	0.49	29.400		0.001324
SOS	2	later	ADAPTOR	41531401125		1	1	2	No.		0.20	0.400		0.000018
SOS	3	later	SS REDUCER	21.3X13.5X2		1	1	2	No.	A182F321, ASME B16.11	0.10	0.200		0.000009
SOS	**24**	**TERM 438(SOUH) TO 439(SOVR)**												
SOS	1	later	PIPE SS	33.7X2.6		30	30	60	Mtr.	ASTM A312 TP321	2.00	119.700		0.005392
SOS	2	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
SOS	3	later	GASKET	31493201297	4	1	1	2	No.	HW59870	0.01	0.022		0.000001
SOS	4	later	SCRU HEX	A- 8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.07	0.560		0.000025
SOS	5	later	NUT HEX	A-8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.02	0.136		0.000006
SOS	6	later	WASHER MCD-ST	13		8	8	16	No.	IS:2016-1967	0.01	0.096		0.000004
SOS	7	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	10	10	20	No.	ASTM A182 F321	1.02	20.400		0.000919

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	8	later	GASKET	31493201297	4	5	5	10	No.	HW59870	0.01	0.110		0.000005
SOS	9	later	SCRU HEX	A- 8.8 M12X65		40	40	80	No.	IS:1364PART-2,1367PART-3	0.07	5.600		0.000252
SOS	10	later	NUT HEX	A-8 M12		40	40	80	No.	IS:1364PART-3,1367PART-3	0.02	1.360		0.000061
SOS	11	later	WASHER MCD-ST	13		80	80	160	No.	IS:2016-1967	0.01	0.960		0.000043
SOS	25	TERM 78 (SOUH) TO 7A/7B (GEN)												
SOS	1	later	PIPE SS	114.3X3.6		63	63	126	Mtr.	ASTM A312 TP321	9.83	1238.706		0.055803
SOS	2	later	SS BEND 90 DEG	114.3X3.6		18	18	36	No.	A403 WP321, ASME B16.9	2.70	97.200		0.004379
SOS	3	later	S.S.TEE	114.3X114.3X3.6		1	1	2	No.	A403 WP321, ASME B16.9	5.76	11.520		0.000519
SOS	4	later	SS FLANGE GROOVED	31500001245	0	10	10	20	No.	ASTM A182 F321	4.58	91.600		0.004127
SOS	5	later	SS WN FLANGE	31531401194	4	10	10	20	No.	ASTM A182 F321	4.58	91.600		0.004127
SOS	6	later	O-RING 123X4	123X4		12	12	24	No.	HW59870	0.01	0.240		0.000011
SOS	7	later	SCRU HEX	A- 8.8 M16X80		80	80	160	No.	IS:1364PART-2,1367PART-3	0.15	24.000		0.001081
SOS	8	later	NUT HEX	A-8 M16		80	80	160	No.	IS:1364PART-3,1367PART-3	0.03	5.440		0.000245
SOS	9	later	WASHER MCD-ST	17		148	148	296	No.	IS:2016-1967	0.01	3.256		0.000147
SOS	10	later	SS FLANGE GROOVED	31500001245	0	2	2	4	No.	ASTM A182 F321	4.58	18.320		0.000825
SOS	11	later	O-RING 123X4	123X4		2	2	4	No.	HW59870	0.01	0.040		0.000002
SOS	12	later	SCRU HEX	A- 8.8 M16X80		16	16	32	No.	IS:1364PART-2,1367PART-3	0.15	4.800		0.000216
SOS	13	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-3,1367PART-3	0.03	1.088		0.000049
SOS	14	later	WASHER MCD-ST	17		32	32	64	No.	IS:2016-1967	0.01	0.704		0.000032
SOS	26	U LOOPTO TERM450(DPR LINESOVR)												
SOS	1	later	PIPE SS	21.3X2.6		25	25	50	Mtr.	ASTM A312 TP321	1.20	59.950		0.002701
SOS	2	later	CONNECTION, 15NB	31500001190	02	2	2	4	No.	ASTM A182 F321	0.12	0.460		0.000021
SOS	27	TERM 79 (SOUH) TO 295 (SOST)												
SOS	1	later	PIPE SS	114.3X3.6		30	30	60	Mtr.	ASTM A312 TP321	9.83	589.860		0.026573
SOS	2	later	SS REDUCER	114.3X60.3X3.6		1	1	2	No.	A403 WP321, ASME B16.9	1.44	2.880		0.000130
SOS	3	later	SS REDUCER	60.3X33.7X4		1	1	2	No.	A182F321, ASME B16.11	0.50	1.000		0.000045
SOS	4	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	10	1	1	2	No.	ASTM A182 F321	3.62	7.240		0.000326
SOS	5	later	GASKET	31493201297	3	1	1	2	No.	HW59870	0.04	0.074		0.000003
SOS	6	later	SCRU HEX	A- 8.8 M16X80		8	8	16	No.	IS:1364PART-2,1367PART-3	0.15	2.400		0.000108
SOS	7	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	8	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	9	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	10	10	10	20	No.	ASTM A182 F321	3.62	72.400		0.003262
SOS	10	later	GASKET	31493201297	3	5	5	10	No.	HW59870	0.04	0.370		0.000017
SOS	11	later	SCRU HEX	A- 8.8 M16X80		40	40	80	No.	IS:1364PART-2,1367PART-3	0.15	12.000		0.000541
SOS	12	later	NUT HEX	A-8 M16		40	40	80	No.	IS:1364PART-3,1367PART-3	0.03	2.720		0.000123
SOS	13	later	WASHER MCD-ST	13		80	80	160	No.	IS:2016-1967	0.01	0.960		0.000043
SOS	14	later	SS BEND 90 DEG	114.3X3.6		12	12	24	No.	A403 WP321, ASME B16.9	2.70	64.800		0.002919
SOS	28	TERM 75(SOUH) TO 71(SOVR)												
SOS	1	later	PIPE SS	60.3X4		30	30	60	Mtr.	ASTM A312 TP321	5.55	333.000		0.015001
SOS	2	later	SS BEND 90 DEG	60.3X4		8	8	16	No.	A403 WP321, ASME B16.9	0.90	14.400		0.000649
SOS	3	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	1	1	2	No.	ASTM A182 F321	2.18	4.360		0.000196
SOS	4	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000002
SOS	5	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	6	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	7	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	8	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	12	12	24	No.	ASTM A182 F321	2.18	52.320		0.002357
SOS	9	later	GASKET	31493201297	0	6	6	12	No.	HW59870	0.02	0.240		0.000011
SOS	10	later	SCRU HEX	A- 8.8 M16X75		24	24	48	No.	IS:1364PART-2,1367PART-3	0.15	7.200		0.000324
SOS	11	later	NUT HEX	A-8 M16		24	24	48	No.	IS:1364PART-3,1367PART-3	0.03	1.632		0.000074
SOS	12	later	WASHER MCD-ST	17		48	48	96	No.	IS:2016-1967	0.01	1.056		0.000048
SOS	29	921(PEM)TO SO CLR AIR SIDE SOU												
SOS	1	later	PIPE CS	114.3X6.02		5	5	10	Mtr.	ASME A106 GR.B	16.08	160.800		0.002080
SOS	2	later	BEND 90 DEG	114.3X6.02		3	3	6	No.	A234 WPB, ASME B16.9	3.83	22.980		0.000297
SOS	3	later	TEE	114.3X114.3X6.02		1	1	2	No.	A234 WPB, ASME B16.9	5.76	11.520		0.000149
SOS	4	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	2	2	4	No.	IS-2062 GR.B	3.62	14.480		0.000187
SOS	5	later	GASKET	31493201297	3	2	2	4	No.	HW59870	0.04	0.148		0.000002
SOS	6	later	SCRU HEX	A- 8.8 M16X80		16	16	32	No.	IS:1364PART-2,1367	0.15	4.800		0.000062
SOS	7	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-2,1367	0.03	1.088		0.000014
SOS	8	later	WASHER MCD-ST	17		32	32	64	No.	IS:2016-1967	0.01	0.704		0.000009

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	9	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	2	2	4	No.	IS-2062 GR.B	3.62	14.480		0.000187
SOS	10	later	GASKET	31493201297	3	1	1	2	No.	HW59870	0.04	0.074		0.000001
SOS	11	later	SCRU HEX	A- 8.8 M16X80		8	8	16	No.	IS:1364PART-2,1367	0.15	2.400		0.000031
SOS	12	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-2,1367	0.03	0.544		0.000007
SOS	13	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000005
SOS	14	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	4	4	8	No.	IS-2062 GR.B	3.62	28.960		0.000375
SOS	15	later	GASKET	31493201297	3	4	4	8	No.	HW59870	0.04	0.296		0.000004
SOS	16	later	SCRU HEX	A- 8.8 M16X80		32	32	64	No.	IS:1364PART-2,1367	0.15	9.600		0.000124
SOS	17	later	NUT HEX	A-8 M16		32	32	64	No.	IS:1364PART-2,1367	0.03	2.176		0.000028
SOS	18	later	WASHER MCD-ST	17		64	64	128	No.	IS:2016-1967	0.01	1.408		0.000018
SOS	19	later	CONNECTION, 15NB	31500001190	02	2	2	4	No.	IS-2062 GR.B	0.12	0.460		0.000006
SOS	20	later	REDUCER	168.3X7.11X114.3X6.02		1	1	2	No.	A234 WPB, ASME B16.9	3.94	7.880		0.000102
SOS	30	SO CLR AIR SIDE SOU TO922(PEM)												
SOS	1	later	PIPE CS	114.3X6.02		5	5	10	Mtr.	ASME A106 GR.B	16.08	160.800		0.002080
SOS	2	later	BEND 90 DEG	114.3X6.02		3	3	6	No.	A234 WPB, ASME B16.9	3.83	22.980		0.000297
SOS	3	later	TEE	114.3X114.3X6.02		1	1	2	No.	A234 WPB, ASME B16.9	5.76	11.520		0.000149
SOS	4	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	2	2	4	No.	IS-2062 GR.B	3.62	14.480		0.000187
SOS	5	later	GASKET	31493201297	3	2	2	4	No.	HW59870	0.04	0.148		0.000002
SOS	6	later	SCRU HEX	A- 8.8 M16X80		16	16	32	No.	IS:1364PART-2,1367	0.15	4.800		0.000062
SOS	7	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-2,1367	0.03	1.088		0.000014
SOS	8	later	WASHER MCD-ST	17		32	32	64	No.	IS:2016-1967	0.01	0.704		0.000009
SOS	9	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	2	2	4	No.	IS-2062 GR.B	3.62	14.480		0.000187
SOS	10	later	GASKET	31493201297	3	1	1	2	No.	HW59870	0.04	0.074		0.000001
SOS	11	later	SCRU HEX	A- 8.8 M16X80		8	8	16	No.	IS:1364PART-2,1367	0.15	2.400		0.000031
SOS	12	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-2,1367	0.03	0.544		0.000007
SOS	13	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000005
SOS	14	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	4	4	8	No.	IS-2062 GR.B	3.62	28.960		0.000375
SOS	15	later	GASKET	31493201297	3	4	4	8	No.	HW59870	0.04	0.296		0.000004
SOS	16	later	SCRU HEX	A- 8.8 M16X80		32	32	64	No.	IS:1364PART-2,1367	0.15	9.600		0.000124
SOS	17	later	NUT HEX	A-8 M16		32	32	64	No.	IS:1364PART-2,1367	0.03	2.176		0.000028
SOS	18	later	WASHER MCD-ST	17		64	64	128	No.	IS:2016-1967	0.01	1.408		0.000018
SOS	19	later	CONNECTION, 15NB	31500001190	02	2	2	4	No.	IS-2062 GR.B	0.12	0.460		0.000006
SOS	20	later	REDUCER	168.3X7.11X114.3X6.02		1	1	2	No.	A234 WPB, ASME B16.9	3.94	7.880		0.000102
SOS	31	931(PEM) TO SO CLR H2 SIDE SOU												
SOS	1	later	PIPE CS	60.3X3.91		5	5	10	Mtr.	ASME A106 GR.B	5.44	54.400		0.000704
SOS	2	later	BEND 90 DEG	60.3X3.91		3	3	6	No.	A234 WPB, ASME B16.9	0.65	3.900		0.000050
SOS	3	later	TEE	60.3X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.09	2.180		0.000028
SOS	4	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	2	2	4	No.	IS-2062 GR.B	2.18	8.720		0.000113
SOS	5	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000001
SOS	6	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
SOS	7	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-2,1367	0.03	0.272		0.000004
SOS	8	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000002
SOS	9	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	4	4	8	No.	IS-2062 GR.B	2.18	17.440		0.000226
SOS	10	later	GASKET	31493201297	0	4	4	8	No.	HW59870	0.02	0.160		0.000002
SOS	11	later	SCRU HEX	A- 8.8 M16X75		16	16	32	No.	IS:1364PART-2,1367	0.15	4.800		0.000062
SOS	12	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-2,1367	0.03	1.088		0.000014
SOS	13	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000005
SOS	14	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	2	2	4	No.	IS-2062 GR.B	2.18	8.720		0.000113
SOS	15	later	GASKET	31493201297	0	4	4	8	No.	HW59870	0.02	0.160		0.000002
SOS	16	later	SCRU HEX	A- 8.8 M16X75		32	32	64	No.	IS:1364PART-2,1367	0.15	9.600		0.000124
SOS	17	later	NUT HEX	A-8 M16		32	32	64	No.	IS:1364PART-2,1367	0.03	2.176		0.000028
SOS	18	later	WASHER MCD-ST	17		64	64	128	No.	IS:2016-1967	0.01	1.408		0.000018
SOS	19	later	CONNECTION, 15NB	31500001190	02	2	2	4	No.	IS-2062 GR.B	0.12	0.460		0.000006
SOS	20	later	REDUCER	114.3X6.02X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.55	3.100		0.000040
SOS	32	SO CLR H2 SIDE SOU TO 932(PEM)												
SOS	1	later	PIPE CS	60.3X3.91		5	5	10	Mtr.	ASME A106 GR.B	5.44	54.400		0.000704
SOS	2	later	BEND 90 DEG	60.3X3.91		3	3	6	No.	A234 WPB, ASME B16.9	0.65	3.900		0.000050
SOS	3	later	TEE	60.3X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.09	2.180		0.000028
SOS	4	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	2	2	4	No.	IS-2062 GR.B	2.18	8.720		0.000113

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	5	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000001
SOS	6	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
SOS	7	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-2,1367	0.03	0.272		0.000004
SOS	8	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000002
SOS	9	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	4	4	8	No.	IS-2062 GR.B	2.18	17.440		0.000226
SOS	10	later	GASKET	31493201297	0	4	4	8	No.	HW59870	0.02	0.160		0.000002
SOS	11	later	SCRU HEX	A- 8.8 M16X75		16	16	32	No.	IS:1364PART-2,1367	0.15	4.800		0.000062
SOS	12	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-2,1367	0.03	1.088		0.000014
SOS	13	later	WASHER MCD-ST	17		32	32	64	No.	IS:2016-1967	0.01	0.704		0.000009
SOS	14	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	2	2	4	No.	IS-2062 GR.B	2.18	8.720		0.000113
SOS	15	later	GASKET	31493201297	0	2	2	4	No.	HW59870	0.02	0.080		0.000001
SOS	16	later	SCRU HEX	A- 8.8 M16X75		8	8	16	No.	IS:1364PART-2,1367	0.15	2.400		0.000031
SOS	17	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-2,1367	0.03	0.544		0.000007
SOS	18	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000005
SOS	19	later	CONNECTION, 15NB	31500001190	02	2	2	4	No.	IS-2062 GR.B	0.12	0.460		0.000006
SOS	20	later	REDUCER	114.3X6.02X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.55	3.100		0.000040
SOS	**33**	**70B(SOVR) TO 6B/6D(GEN)**												
SOS	1	later	PIPE SS	33.7X2.6		30	30	60	Mtr.	ASTM A312 TP321	2.00	119.700		0.005392
SOS	2	later	SS REDUCER	48.3X33.7X4		2	2	4	No.	A182F321, ASME B16.11	0.50	2.000		0.000090
SOS	3	later	S.S.TEE	33.7X33.7X4		1	1	2	No.	A182F321, ASME B16.11	0.43	0.860		0.000039
SOS	4	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
SOS	5	later	GASKET	31493201297	4	1	1	2	No.	HW59870	0.01	0.022		0.000001
SOS	6	later	SCRU HEX	A- 8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.07	0.560		0.000025
SOS	7	later	NUT HEX	A-8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.02	0.136		0.000006
SOS	8	later	WASHER MCD-ST	13		8	8	16	No.	IS:2016-1967	0.01	0.096		0.000004
SOS	9	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	10	10	20	No.	ASTM A182 F321	1.02	20.400		0.000919
SOS	10	later	GASKET	31493201297	4	5	5	10	No.	HW59870	0.01	0.110		0.000005
SOS	11	later	SCRU HEX	A- 8.8 M12X65		20	20	40	No.	IS:1364PART-2,1367PART-3	0.07	2.800		0.000126
SOS	12	later	NUT HEX	A-8 M12		20	20	40	No.	IS:1364PART-3,1367PART-3	0.02	0.680		0.000031
SOS	13	later	WASHER MCD-ST	13		40	40	80	No.	IS:2016-1967	0.01	0.480		0.000022
SOS	14	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	15	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	16	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	17	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	18	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
GS	**1**	**FROM TERM. 95 (H2 DIST.) TO 94 (GU)**												
GS		1.1	PIPE CS	33.4X3.38		29	29	58	Mtr.	ASME A106 GR.B	2.50	145.000		0.001875
GS	**2**	**FROM TERM. 90(GU) TO 16(GEN)**												
GS		2.1	PIPE CS	60.3X3.91		40	40	80	Mtr.	ASME A106 GR.B	5.44	435.200		0.005629
GS		2.2	BEND 90°	60.3X3.91		10	10	20	No.	A234 WPB, ASME B16.9	0.65	13.000		0.000168
GS		2.3	FLANGE, 50NB (GU END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		2.4	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		2.5	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		2.6	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		2.7	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
GS		2.8	FLANGE, 50NB (GEN END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		2.9	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		2.10	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		2.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		2.12	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
GS	**3**	**FROM TERM. 97 (CO2 DIST.) TO TERM 96 (GU)**												
GS		3.1	PIPE CS	60.3X3.91		23	23	46	Mtr.	ASME A106 GR.B	5.44	250.240		0.003237
GS		3.2	BEND 90°	60.3X3.91		5	5	10	No.	A234 WPB, ASME B16.9	0.65	6.500		0.000084
GS		3.3	FLANGE, 50NB (GU END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		3.4	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		3.5	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		3.6	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		3.7	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		3.8	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
GS		3.9	FLANGE, 50NB (CO2 DIST. END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		3.10	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		3.11	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		3.12	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		3.13	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
GS	4	FROM TERM. 91(GU) TO 15(GEN)												
GS		4.1	PIPE CS	60.3X3.91		40	40	80	Mtr.	ASME A106 GR.B	5.44	435.200		0.005629
GS		4.2	BEND 90º	60.3X3.91		9	9	18	No.	A234 WPB, ASME B16.9	0.65	11.700		0.000151
GS		4.3	FLANGE, 50NB (GU END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		4.4	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		4.5	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		4.6	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		4.7	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		4.8	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
GS		4.9	FLANGE, 50NB (FOR GEN END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		4.10	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		4.11	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		4.12	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		4.13	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
GS	5	FROM TERM. 19(GEN) TO 110/113 (GAS DRIER)												
GS		5.1	PIPE	60.3X3.91		40	40	80	Mtr.	ASME A106 GR.B	5.44	435.200		0.005629
GS		5.2	BEND 90º	60.3X3.91		7	7	14	No.	A234 WPB, ASME B16.9	0.65	9.100		0.000118
GS		5.3	TEE	60.3X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.09	2.180		0.000028
GS		5.4	FLANGE, 50NB (FOR VLV, GAS DRIER,OIL TRAP,GEN END)	31492501005	00	11	11	22	No.	IS-2062 GR.B	2.50	55.000		0.000711
GS		5.5	O-RING	41492501071	00	11	11	22	No.	HW59870	0.04	0.880		0.000011
GS		5.6	SCREW HEX	A-8.8 M16X75		44	44	88	No.	IS:1364PART-2,1367	0.15	13.200		0.000171
GS		5.7	NUT HEX	A-8.8 M16		44	44	88	No.	IS:1364PART-2,1367	0.03	3.000		0.000039
GS		5.8	WASHER MCD-ST17.0			88	88	176	No.	IS:2016-1967	0.01	1.940		0.000025
GS		5.9	CONNECTION, 8NB	31500001190	06	1	1	2	No.	IS-2062 GR.B	0.06	0.120		0.000002
GS		5.10	PIPE	13.7X2.24		18	18	36	Mtr.	ASTM SA106 GR.B	0.63	22.680		0.000293
GS		5.11	PIPE	21.3X2.77		18	18	36	Mtr.	ASME A106 GR.B	1.27	45.720		0.000591
GS	6	FROM TERM. 111/112 (GAS DRIER) TO 20 (GEN)												
GS		6.1	PIPE CS	60.3X3.91		40	40	80	Mtr.	ASME A106 GR.B	5.44	435.200		0.005629
GS		6.2	BEND 90º	60.3X3.91		5	5	10	No.	A234 WPB, ASME B16.9	0.65	6.500		0.000084
GS		6.3	TEE	60.3X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.09	2.180		0.000028
GS		6.4	FLANGE,50NB (FOR VLV,GAS DRIER, GEN END)	31492501005	00	9	9	18	No.	IS-2062 GR.B	2.50	45.000		0.000582
GS		6.5	O-RING	41492501071	00	9	9	18	No.	HW59870	0.04	0.720		0.000009
GS		6.6	SCREW HEX	A-8.8 M16X75		36	36	72	No.	IS:1364PART-2,1367	0.15	10.800		0.000140
GS		6.7	NUT HEX	A-8.8 M16		36	36	72	No.	IS:1364PART-2,1367	0.03	2.440		0.000032
GS		6.8	WASHER MCD-ST17.0			72	72	144	No.	IS:2016-1967	0.01	1.580		0.000020
GS		6.9	CONNECTION, 8NB	31500001190	06	1	1	2	No.	IS-2062 GR.B	0.06	0.120		0.000002
GS	7	FROM TERM. 107 (GU) TO 313A/B (GAC)												
GS		7.1	PIPE CS	13.7X2.24		15	15	30	Mtr.	ASME A106 GR.B	0.63	18.900		0.000244
GS		7.2	TEE	13.7X13.7X2.24		1	1	2	No.	A234 WPB, ASME B16.9	0.15	0.300		0.000004
LDR	201	PIPE ASSEMBLY FROM TERM. 21A/B/C(GEN) TO 61A/B/C(LDR)												
LDR		201.1	PIPE	33.4X3.38		78	78	156	Mtr.	ASME A106 GR.B	2.50	390.000		0.005044
LDR		201.2	REDUCER	60.3X3.91X33.4X3.38		3	3	6	No.	A234 WPB, ASME B16.9	0.40	2.400		0.000031
LDR		201.3	FLANGE, 25NB	31500001239	04	30	30	60	No.	IS-2062 GR.B	1.02	61.200		0.000792
LDR		201.4	GASKET VITON	68X34X3		15	15	30	No.	HW59870	0.03	0.900		0.000012
LDR		201.5	SCREW HEX	A-8.8 M12X65		60	60	120	No.	IS:1364PART-2,1367PART-3	0.07	8.400		0.000109
LDR		201.6	NUT HEX	A-8.8 M12		60	60	120	No.	IS:1364PART-3,1367PART-3	0.02	2.160		0.000028
LDR		201.7	WASHER MCD-ST 13			120	120	240	No.	IS:2016-1967	0.01	1.480		0.000019
LDR		201.8	FLANGE, 50NB (FOR 21B TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056
LDR		201.9	GASKET VITON	102X60X3		4	4	8	No.	HW59870	0.04	0.280		0.000004
LDR		201.10	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000016
LDR		201.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		201.12	WASHER MCD-ST17.0			4	4	8	No.	IS:2016-1967	0.01	0.080		0.000001

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
LDR		201.13	FLANGE, 50NB (FOR 21A/C TP GEN END)	31500001239	07	2	2	4	No.	IS-2062 GR.B	2.18	8.720		0.000113
LDR		201.14	GASKET VITON	102X60X3		8	8	16	No.	HW59870	0.04	0.560		0.000007
LDR		201.15	SCREW HEX	A-8.8 M16X75		8	8	16	No.	IS:1364PART-2,1367PART-3	0.15	2.400		0.000031
LDR		201.16	NUT HEX	A-8.8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.04	0.640		0.000008
LDR		201.17	WASHER MCD-ST13.0			4	4	8	No.	IS:2016-1967	0.01	0.040		0.000001
LDR	202	PIPE ASSEMBLY FROM TERM.22(GEN) TO 62(LDR)												
LDR		202.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
LDR		202.2	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
LDR		202.3	FLANGE, 25NB	31500001239	04	6	6	12	No.	IS-2062 GR.B	1.02	12.240		0.000158
LDR		202.4	GASKET VITON	68X34X3		3	3	6	No.	HW59870	0.03	0.180		0.000002
LDR		202.5	SCREW HEX	A-8.8 M12X65		12	12	24	No.	IS:1364PART-2,1367PART-3	0.07	1.680		0.000022
LDR		202.6	NUT HEX	A-8.8 M12		12	12	24	No.	IS:1364PART-3,1367PART-3	0.02	0.440		0.000006
LDR		202.7	WASHER MCD-ST 13			24	24	48	No.	IS:2016-1967	0.01	0.300		0.000004
LDR		202.8	FLANGE, 50NB (FOR 22 TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056
LDR		202.9	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
LDR		202.10	SCREW HEX	A-8.8 M16X60		4	4	8	No.	IS:1364PART-2,1367PART-3	0.13	1.000		0.000013
LDR		202.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		202.12	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
LDR	203	PIPE ASSEMBLY FROM TERM. 23/25(GEN) TO 63/64(LDR)												
LDR		203.1	PIPE	33.4X3.38		50	50	100	Mtr.	ASME A106 GR.B	2.50	250.000		0.003233
LDR		203.2	REDUCER	60.3X3.91X33.4X3.38		2	2	4	No.	A234 WPB, ASME B16.9	0.40	1.600		0.000021
LDR		203.3	FLANGE, 25NB	31500001239	04	12	12	24	No.	IS-2062 GR.B	1.02	24.480		0.000317
LDR		203.4	GASKET VITON	68X34X3		6	6	12	No.	HW59870	0.03	0.360		0.000005
LDR		203.5	SCREW HEX	A-8.8 M12X65		24	24	48	No.	IS:1364PART-2,1367PART-3	0.07	3.360		0.000043
LDR		203.6	NUT HEX	A-8.8 M12		24	24	48	No.	IS:1364PART-3,1367PART-3	0.02	0.860		0.000011
LDR		203.7	WASHER MCD-ST 13			45	45	90	No.	IS:2016-1967	0.01	0.560		0.000007
LDR		203.8	FLANGE, 50NB (FOR 23 TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056
LDR		203.9	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
LDR		203.10	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000016
LDR		203.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		203.12	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
LDR		203.13	FLANGE, 50NB (FOR 25 TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056
LDR		203.14	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
LDR		203.15	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000016
LDR		203.16	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		203.17	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
LDR	204	PIPE ASSEMBLY FROM TERM. 27(GEN) TO 67(LDR)												
LDR		204.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
LDR		204.2	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
LDR		204.3	FLANGE, 25NB	31500001239	04	6	6	12	No.	IS-2062 GR.B	1.02	12.240		0.000158
LDR		204.4	GASKET VITON	68X34X3		3	3	6	No.	HW59870	0.03	0.180		0.000002
LDR		204.5	SCREW HEX	A-8.8 M12X65		12	12	24	No.	IS:1364PART-2,1367PART-3	0.07	1.680		0.000022
LDR		204.6	NUT HEX	A-8.8 M12		12	12	24	No.	IS:1364PART-3,1367PART-3	0.02	0.440		0.000006
LDR		204.7	WASHER MCD-ST 13			24	24	48	No.	IS:2016-1967	0.01	0.300		0.000004
LDR		204.8	FLANGE, 50NB (FOR 27 TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056
LDR		204.9	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
LDR		204.10	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000016
LDR		204.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		204.12	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
LDR	205	PIPE ASSEMBLY FROM TERM.26(GEN) TO 66(LDR)												
LDR		205.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
LDR		205.2	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
LDR		205.3	FLANGE, 25NB	31500001239	04	6	6	12	No.	IS-2062 GR.B	1.02	12.240		0.000158
LDR		205.4	GASKET VITON	68X34X3		3	3	6	No.	HW59870	0.03	0.180		0.000002
LDR		205.5	SCREW HEX	A-8.8 M12X65		12	12	24	No.	IS:1364PART-2,1367PART-3	0.07	1.680		0.000022
LDR		205.6	NUT HEX	A-8.8 M12		12	12	24	No.	IS:1364PART-3,1367PART-3	0.02	0.440		0.000006
LDR		205.7	WASHER MCD-ST 13			24	24	48	No.	IS:2016-1967	0.01	0.300		0.000004
LDR		205.8	FLANGE, 50NB (FOR 26 TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
LDR		205.9	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
LDR		205.10	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000016
LDR		205.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		205.12	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
PWS	301	PIPE ASSEMBLY FROM TERM.195 (PW UNIT) TO TERM. 196 (PW PIPELINE)												
PWS		301.1	PIPE SS	168.3X3.4		41	41	82	Mtr.	ASTM A312 TP321	13.83	1134.060		0.051089
PWS		301.2	BEND 90°	168.3X3.4		6	6	12	No.	A403 WP321, ASME B16.9	5.50	66.000		0.002973
PWS		301.3	FLANGE, 150NB (PWU 195 END)	31531401089	01	1	1	2	No.	IS-2062 GR.B	7.59	15.180		0.000196
PWS		301.4	NECK (TERM.195 PW UNIT)	31531401088	01	1	1	2	No.	ASTM A182 F321	5.20	10.400		0.000469
PWS		301.5	GASKET VITON	218X159X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		301.6	SCREW HEX	A-8.8 M24X130		8	8	16	No.	IS:1364PART-2,1367PART-3	0.50	8.000		0.000360
PWS		301.7	NUT HEX	A-8.8 M24		8	8	16	No.	IS:1364PART-3,1367PART-3	0.06	1.000		0.000045
PWS		301.8	WASHER MCD-ST 25			16	16	32	No.	IS:2016-1967	0.02	0.540		0.000024
PWS		301.9	FLANGE, 150NB (TERM.196 PW PIPELINE)	31500001240	12	1	1	2	No.	ASTM A182 F321	6.00	12.000		0.000541
PWS		301.10	GASKET VITON	212X169X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		301.11	SCREW HEX	A-8.8 M20X90		8	8	16	No.	IS:1364PART-2,1367PART-3	0.30	4.800		0.000216
PWS		301.12	NUT HEX	A-8.8 M20		8	8	16	No.	IS:1364PART-3,1367PART-3	0.06	1.000		0.000045
PWS		301.13	WASHER MCD-ST 21			16	16	32	No.	IS:2016-1967	0.02	0.540		0.000024
PWS		301.14	FLANGE, 150NB	31500001240	12	10	10	20	No.	ASTM A182 F321	6.00	120.000		0.005406
PWS		301.15	GASKET VITON	212X169X3		5	5	10	No.	HW59870	0.06	0.600		0.000027
PWS		301.16	SCREW HEX	A-8.8 M20X90		80	80	160	No.	IS:1364PART-2,1367PART-3	0.30	48.000		0.002162
PWS		301.17	NUT HEX	A-8.8 M20		80	80	160	No.	IS:1364PART-3,1367PART-3	0.06	9.920		0.000447
PWS		301.18	WASHER MCD-ST 21			160	160	320	No.	IS:2016-1967	0.02	5.440		0.000245
PWS	302	BRANCH PIPE ASSEMBLY FROM TERM.205 (PW TANK PIPE LINE) TO 206 (PW UNIT)												
PWS		302.1	PIPE SS	168.3X3.4		60	60	120	Mtr.	ASTM A312 TP321	13.83	1659.600		0.074764
PWS		302.2	BEND 90°	168.3X3.4		10	10	20	No.	A403 WP321, ASME B16.9	5.50	110.000		0.004955
PWS		302.3	FLANGE, 150NB (PWU 206 END)	31531401089	01	1	1	2	No.	IS-2062 GR.B	7.59	15.180		0.000196
PWS		302.4	NECK, 150NB (TERM.206 PW UNIT)	31531401088	01	1	1	2	No.	ASTM A182 F321	5.20	10.400		0.000469
PWS		302.5	GASKET VITON	218X159X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		302.6	SCREW HEX	A-8.8 M24X130		8	8	16	No.	IS:1364PART-2,1367PART-3	0.50	8.000		0.000360
PWS		302.7	NUT HEX	A-8.8 M24		8	8	16	No.	IS:1364PART-3,1367PART-3	0.06	1.000		0.000045
PWS		302.8	WASHER MCD-ST 25			16	16	32	No.	IS:2016-1967	0.02	0.540		0.000024
PWS		302.9	FLANGE, 150NB (TERM.205 PW PIPELINE)	31500001240	12	1	1	2	No.	ASTM A182 F321	6.00	12.000		0.000541
PWS		302.10	GASKET VITON	212X169X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		302.11	SCREW HEX	A-8.8 M20X90		8	8	16	No.	IS:1364PART-2,1367PART-3	0.30	4.800		0.000216
PWS		302.12	NUT HEX	A-8.8 M20		8	8	16	No.	IS:1364PART-3,1367PART-3	0.06	1.000		0.000045
PWS		302.13	WASHER MCD-ST 21			16	16	32	No.	IS:2016-1967	0.02	0.540		0.000024
PWS		302.14	FLANGE, 150NB	31500001240	12	10	10	20	No.	ASTM A182 F321	6.00	120.000		0.005406
PWS		302.15	GASKET VITON	212X169X3		5	5	10	No.	HW59870	0.06	0.600		0.000027
PWS		302.16	SCREW HEX	A-8.8 M20X90		80	80	160	No.	IS:1364PART-2,1367PART-3	0.30	48.000		0.002162
PWS		302.17	NUT HEX	A-8.8 M20		80	80	160	No.	IS:1364PART-3,1367PART-3	0.06	9.920		0.000447
PWS		302.18	WASHER MCD-ST 21			160	160	320	No.	IS:2016-1967	0.02	5.440		0.000245
PWS	303	PIPE ASSEMBLY FROM TERM.732 (GEN PPG) TO 731 (PW UNIT)												
PWS		303.1	PIPE SS	13.7X1.65		1	1	2	Mtr.	ASME A312 TP321	0.49	0.980		0.000044
PWS		303.2	PIPE SS	21.3x2.11		100	100	200	Mtr.	ASME A312 TP321	1.27	254.000		0.011443
PWS	304	PIPE ASSEMBLY FROM TERM.581A,582A TO 582B,582B												
PWS		303.1	PIPE SS	13.7X1.65		1	1	2	Mtr.	ASME A312 TP321	0.49	0.980		0.000044
PWS		304.2	PIPE SS	21.3x2.11		50	50	100	Mtr.	ASME A312 TP321	1.27	127.000		0.005721
PWS	305	PIPE ASSEMBLY FROM TERM.579 (PW UNIT) TO 140 (PW TANK)												
PWS		305.1	PIPE	33.4X2.77		50	50	100	Mtr.	ASTM A312 TP321	2.09	209.000		0.009415
PWS		305.2	FLANGE, 25NB (TERM.597 PW UNIT)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
PWS		305.3	GASKET VITON	68X34X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		305.4	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.50	4.000		0.000180
PWS		305.5	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.06	0.500		0.000023
PWS		305.6	WASHER MCD-ST 17			8	8	16	No.	IS:2016-1967	0.02	0.280		0.000013
PWS		305.7	FLANGE, 25NB	31500001240	04	8	8	16	No.	ASTM A182 F321	1.02	16.320		0.000735

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
PWS		305.8	GASKET VITON	68X34X3		4	4	8	No.	HW59870	0.06	0.480		0.000022
PWS		305.9	SCREW HEX	A-8.8 M12X65		24	24	48	No.	IS:1364PART-2,1367PART-3	0.50	24.000		0.001081
PWS		305.10	NUT HEX	A-8.8 M12		24	24	48	No.	IS:1364PART-3,1367PART-3	0.06	2.980		0.000134
PWS		305.11	WASHER MCD-ST 17			48	48	96	No.	IS:2016-1967	0.02	1.640		0.000074
PWS		305.12	Flange (TERM.140 PW TANK)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
PWS		305.13	GASKET VITON	68X34X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		305.14	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.50	4.000		0.000180
PWS		305.15	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.06	0.500		0.000023
PWS		305.16	WASHER MCD-ST 17			8	8	16	No.	IS:2016-1967	0.02	0.280		0.000013
PWS	306	PIPE ASSEMBLY FROM TERM.149(PW TANK) TO 567 (PW UNIT)												
PWS		306.1	PIPE	33.4X2.77		50	50	100	Mtr.	ASTM A312 TP321	2.09	209.000		0.009415
PWS		306.2	FLANGE, 25NB (TERM.576 PW UNIT)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
PWS		306.3	GASKET VITON	68X34X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		306.4	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.50	4.000		0.000180
PWS		306.5	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.06	0.500		0.000023
PWS		306.6	WASHER MCD-ST 17			8	8	16	No.	IS:2016-1967	0.02	0.280		0.000013
PWS		306.7	FLANGE, 25NB	31500001240	04	8	8	16	No.	ASTM A182 F321	1.02	16.320		0.000735
PWS		306.8	GASKET VITON	68X34X3		4	4	8	No.	HW59870	0.06	0.480		0.000022
PWS		306.9	SCREW HEX	A-8.8 M12X65		24	24	48	No.	IS:1364PART-2,1367PART-3	0.50	24.000		0.001081
PWS		306.10	NUT HEX	A-8.8 M12		24	24	48	No.	IS:1364PART-3,1367PART-3	0.06	2.980		0.000134
PWS		306.11	WASHER MCD-ST 17			48	48	96	No.	IS:2016-1967	0.02	1.640		0.000074
PWS		306.12	FLANGE, 25NB (TERM.149 PW TANK)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
PWS		306.13	GASKET VITON	68X34X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		306.14	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.50	4.000		0.000180
PWS		306.15	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.06	0.500		0.000023
PWS		306.16	WASHER MCD-ST 17			8	8	16	No.	IS:2016-1967	0.02	0.280		0.000013
PWS	307	PIPE ASSEMBLY FROM TERM.585(PW TANK) TO WASTE GAS												
PWS		307.1	PIPE	33.4X2.77		50	50	100	Mtr.	ASTM A312 TP321	2.09	209.000		0.009415
PWS		307.2	FLANGE, 25NB (TERM.585PW UNIT)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
PWS		307.3	GASKET VITON	68X34X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		307.4	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.50	4.000		0.000180
PWS		307.5	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.06	0.500		0.000023
PWS		307.6	WASHER MCD-ST 17			8	8	16	No.	IS:2016-1967	0.02	0.280		0.000013
PWS		307.7	FLANGE, 25NB	31500001240	04	8	8	16	No.	ASTM A182 F321	1.02	16.320		0.000735
PWS		307.8	GASKET VITON	68X34X3		4	4	8	No.	HW59870	0.06	0.480		0.000022
PWS		307.9	SCREW HEX	A-8.8 M12X65		24	24	48	No.	IS:1364PART-2,1367PART-3	0.50	24.000		0.001081
PWS		307.10	NUT HEX	A-8.8 M12		24	24	48	No.	IS:1364PART-3,1367PART-3	0.06	2.980		0.000134
PWS		307.11	WASHER MCD-ST 17			48	48	96	No.	IS:2016-1967	0.02	1.640		0.000074
PWS	308	PIPE ASSEMBLY FROM PW COOLER INLET TO TERM 208/209												
PWS		308.1	PIPE	168.3X7.11		30	30	60	Mtr.	ASTM A106 GR.B	28.23	1693.800		0.021908
PWS		305.4	REDUCER	168.3X7.11X141.3X6.55		4	4	8	No.	A234 WPB, ASME B16.9	4.19	33.520		0.000434
PWS		308.2	TEE	168.3X168.3X7.11		2	2	4	No.	A234 WPB, ASME B16.9	13.50	54.000		0.000698
PWS		308.3	BEND 90°	168.3X7.11		10	10	20	No.	A234 WPB, ASME B16.9	9.98	199.600		0.002582
PWS		308.4	CONNECTION FOR TE/TG	41500001118	00	6	6	12	No.	IS-2062 GR.B	0.50	6.000		0.000078
PWS		308.5	THERMOWELL FOR TG	41531401027	00	6	6	12	No.	ASTM A182 F321	0.40	4.800		0.000216
PWS		308.6	CONNECTION, 8NB FOR PG/PT	31500001190	06	4	4	8	No.	IS-2062 GR.B	0.06	0.480		0.000006
PWS		308.7	CONNECTION, 15NB	31500001190	02	4	4	8	No.	IS-2062 GR.B	0.12	0.920		0.000012
PWS		308.8	FLANGE, 125NB (CLR TP END)	31500001239	18	4	4	8	No.	IS-2062 GR.B	4.99	39.920		0.000516
PWS		308.9	GASKET VITON	188X140X3		4	4	8	No.	HW59870	0.08	0.640		0.000008
PWS		308.10	SCREW HEX	A-8.8 M24X100		32	32	64	No.	IS:1364PART-2,1367PART-3	0.30	19.200		0.000248
PWS		308.11	NUT HEX	A-8.8 M24		32	32	64	No.	IS:1364PART-3,1367PART-3	0.06	3.960		0.000051
PWS		308.12	WASHER MCD-ST 25			64	64	128	No.	IS:2016-1967	0.02	2.180		0.000028
PWS		308.13	FLANGE, 150NB (VALVE FLANGES)	31500001239	12	8	8	16	No.	IS-2062 GR.B	6.00	96.000		0.001242
PWS		308.14	GASKET VITON	212X169X3		8	8	16	No.	HW59870	0.08	1.280		0.000017
PWS		308.15	SCREW HEX	A-8.8 M20X70		64	64	128	No.	IS:1364PART-2,1367PART-3	0.30	38.400		0.000497
PWS		308.16	NUT HEX	A-8.8 M20		64	64	128	No.	IS:1364PART-3,1367PART-3	0.06	7.940		0.000103
PWS		308.17	WASHER MCD-ST 21			128	128	256	No.	IS:2016-1967	0.02	4.360		0.000056
PWS		308.13	FLANGE, 150NB (PEM TERM)	31500001239	12	4	4	8	No.	IS-2062 GR.B	6.00	48.000		0.000621
PWS		308.14	GASKET VITON	212X169X3		2	2	4	No.	HW59870	0.08	0.320		0.000004

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
PWS		308.15	SCREW HEX	A-8.8 M20X90		16	16	32	No.	IS:1364PART-2,1367PART-3	0.30	9.600		0.000124
PWS		308.16	NUT HEX	A-8.8 M20		16	16	32	No.	IS:1364PART-3,1367PART-3	0.06	1.980		0.000026
PWS		308.17	WASHER MCD-ST 21			32	32	64	No.	IS:2016-1967	0.02	1.080		0.000014
PWS		later	CONNECTION, 15NB	31500001190	02	4	4	8	No.	IS-2062 GR.B	0.12	0.920		0.000012
PWS		later	PIPE	141.3X6.55		1	1	2	Mtr.	ASTM A106 GR.B	21.76	43.520		0.000563
PWS	309	PIPE ASSEMBLY FROM ION EXCHANGER TO PW UNIT INLET												
PWS		309.1	PIPE	33.4X2.77		10	10	20	Mtr.	ASTM A312 TP321	2.09	41.800		0.001883
PWS		309.2	FLANGE, 25NB (VALVE FLANGE)	31500001240	04	6	6	12	No.	ASTM A182 F321	1.02	12.240		0.000551
PWS		309.3	GASKET VITON	68X34X3		4	4	8	No.	HW59870	0.06	0.480		0.000022
PWS		309.4	SCREW HEX	A-8.8 M12X65		48	48	96	No.	IS:1364PART-2,1367PART-3	0.07	6.720		0.000303
PWS		309.5	NUT HEX	A-8.8 M12		48	48	96	No.	IS:1364PART-3,1367PART-3	0.06	5.960		0.000268
PWS		309.6	WASHER MCD-ST 13			96	96	192	No.	IS:2016-1967	0.02	3.260		0.000147
WGS	500	FROM TERM. 105(GU) TO ATM												
WGS		500.1	PIPE	168.3X7.11		55	55	110	Mtr.	ASME A106 GR.B	28.23	3105.300		0.040164
WGS		500.2	BEND 90°	168.3X7.11		5	5	10	No.	A234 WPB, ASME B16.9	9.98	99.800		0.001291
WGS		~~500.3~~	~~Deleted~~	~~Deleted~~										
WGS	501	FROM TERM. (CO2 DIST.) TO WGS												
WGS		501.1	PIPE	60.3X3.91		20	20	40	Mtr.	ASME A106 GR.B	5.44	217.600		0.002814
WGS		501.2	BEND 90°	60.3X3.91		4	4	8	No.	A234 WPB, ASME B16.9	0.65	5.200		0.000067
WGS		501.3	TEE UNEQUAL	168.3X7.11X114.3X6.02		1	1	2	No.	A234 WPB, ASME B16.9	13.50	27.000		0.000349
WGS		501.4	REDUCER	114.3X6.02X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.55	3.100		0.000040
WGS		501.5	FLANGE, 50NB (CO2 DIST END)	31500001001	04	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
WGS		501.6	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.070		0.000001
WGS		501.7	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
WGS		501.8	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
WGS		501.9	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
WGS		501.10	FLANGE, 50NB	31500001001	04	6	6	12	No.	IS-2062 GR.B	2.50	30.000		0.000388
WGS		501.11	GASKET VITON	102X60X3		2	2	4	No.	HW59870	0.02	0.070		0.000001
WGS		501.12	SCREW HEX	A-8.8 M16X75		8	8	16	No.	IS:1364PART-2,1367	0.15	2.400		0.000031
WGS		501.13	NUT HEX	A-8.8 M16		8	8	16	No.	IS:1364PART-2,1367	0.03	0.540		0.000007
WGS		501.14	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
WGS		501.15	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
WGS		501.16	REDUCER	60.3X3.91X48.3x3.68		1	1	2	No.	A234 WPB, ASME B16.9	0.44	0.880		0.000011
WGS	502	FROM TERM. GAC 315 A/B TO WGS												
WGS		502.1	PIPE	33.4X3.38		50	50	100	Mtr.	ASME A106 GR.B	2.50	250.000		0.003233
WGS	315	502.2	TEE	33.4X33.4X3.38		2	2	4	No.	A234 WPB, ASME B16.9	0.30	1.200		0.000016
WGS		502.3	~~Deleted~~	~~Deleted~~										
WGS		502.4	REDUCER	33.4X3.38X13.7X2.24		1	1	2	No.	A234 WPB, ASME B16.9	0.20	0.400		0.000005
WGS		502.5	BEND 90°	60.3x3.91		5	5	10	No.	A234 WPB, ASME B16.9	0.65	6.500		0.000084
WGS	503	FROM TERM. 296 (SOST VENT) TO VAP. EXHUASTER												
WGS		503.1	PIPE CS	73x5.16		20	20	40	Mtr.	ASTM A106 GR.B	8.62	344.800		0.004460
WGS		503.2	BEND 90°	73x5.16		8	8	16	No.	A234 WPB, ASME B16.9	1.25	20.000		0.000259
WGS		503.3	REDUCER	73X5.16X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	0.83	1.660		0.000021
WGS		503.4	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
WGS		503.5	UNEQUAL TEE	88.9X5.49X88.9X5.49X73X5.16		1	1	2	No.	A234 WPB, ASME B16.9	3.07	6.140		0.000079
WGS		503.6	FLANGE,65NB (FOR 296 SOST)	31500001239	08	1	1	2	No.	IS-2062 GR.B	2.67	5.340		0.000069
WGS		503.7	GASKET VITON	122X76X3		1	1	2	No.	HW59870	0.04	0.084		0.000001
WGS		503.8	SCREW HEX	A-8.8 M16X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.13	1.040		0.000013
WGS		503.9	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
WGS		503.10	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
WGS		503.11	FLANGE, 65NB	31500001239	08	6	6	12	No.	IS-2062 GR.B	2.67	32.040		0.000414
WGS		503.12	GASKET VITON	122X76X3		3	3	6	No.	HW59870	0.04	0.252		0.000003
WGS		503.13	SCREW HEX	A-8.8 M16X75		18	18	36	No.	IS:1364PART-2,1367PART-3	0.15	5.400		0.000070
WGS		503.14	NUT HEX	A-8.8 M16		18	18	36	No.	IS:1364PART-3,1367PART-3	0.03	1.220		0.000016
WGS		503.15	WASHER MCD-ST17.0			36	36	72	No.	IS:2016-1967	0.01	0.800		0.000010
WGS		503.16	REDUCER	88.9X5.49X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.02	2.040		0.000026
WGS		503.17	REDUCER	33.4x3.38X26.7x2.87		1	1	2	No.	A234 WPB, ASME B16.9	0.20	0.400		0.000005
WGS	504	FROM TERM. H2 DIST. TO WGS												
WGS		504.1	PIPE	21.3X2.77		25	25	50	Mtr.	ASME A106 GR.B	1.27	63.500		0.000821

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
WGS		504.2	REDUCER	21.3X2.77X13.7X2.24		1	1	2	No.	A234 WPB, ASME B16.9	0.10	0.200		0.000003
WGS	505	FROM TERM. 9A/9B TO VAPOUR EXHAUSTER (COMMON HEADER 80NB) UPTO 100NB COMMON HEADER												
WGS		505.1	PIPE	88.9X5.49		50	50	100	Mtr.	ASME A106 GR.B	11.29	1129.000		0.014602
WGS		505.2	BEND 90º	88.9X5.49		20	20	40	No.	A234 WPB, ASME B16.9	1.85	74.000		0.000957
WGS		505.3	TEE	88.9X88.9X5.49		6	6	12	No.	A234 WPB, ASME B16.9	3.07	36.840		0.000476
WGS		505.4	FLANGE, 80NB	31500001239	09	28	28	56	No.	IS-2062 GR.B, ASME B16.5	3.28	183.680		0.002376
WGS		505.5	GASKET VITON	138X89X3		14	14	28	No.	HW59870	0.05	1.400		0.000018
WGS		505.6	SCREW HEX	A-8.8 M16X80		112	112	224	No.	IS:1364PART-2,1367	0.12	27.780		0.000359
WGS		505.7	NUT HEX	A-8.8 M16		112	112	224	No.	IS:1364PART-2,1367	0.03	7.620		0.000099
WGS		505.8	WASHER MCD-ST17.0			224	224	448	No.	IS:2016-1967	0.01	4.920		0.000064
WGS		505.9	FLANGE, 80NB (VAP EXHST END)	41500001011	00	4	4	8	No.	IS-2062 GR.B	1.55	12.384		0.000160
WGS		505.10	GASKET VITON	90X108X3		4	4	8	No.	HW59870	0.01	0.070		0.000001
WGS		505.11	SCREW HEX	A-8.8 M8X70		32	32	64	No.	IS:1364PART-2,1367	0.06	3.720		0.000048
WGS		505.12	NUT HEX	A-8.8 M8		32	32	64	No.	IS:1364PART-2,1367	0.02	1.160		0.000015
WGS		505.13	WASHER MCD-ST9.0			64	64	128	No.	IS:2016-1967	0.01	0.800		0.000010
WGS		505.14	FLANGE, 80NB (9A/B GEN END)	31500001239	09	2	2	4	No.	IS-2062 GR.B	3.28	13.120		0.000170
WGS		505.15	GASKET VITON	138X89X3		2	2	4	No.	HW59870	0.05	0.200		0.000003
WGS		505.16	SCREW HEX	A-8.8 M16X80		16	16	32	No.	IS:1364PART-2,1367	0.12	3.960		0.000051
WGS		505.17	NUT HEX	A-8.8 M16		16	16	32	No.	IS:1364PART-2,1367	0.03	1.080		0.000014
WGS		505.18	WASHER MCD-ST17.0			32	32	64	No.	IS:2016-1967	0.01	0.700		0.000009
WGS		505.19	FLANGE, 80NB (DIAPH.VALVE END CONN)	31500001239	09	4	4	8	No.	IS-2062 GR.B	3.28	26.240		0.000339
WGS		505.20	GASKET VITON	138X89X3		4	4	8	No.	HW59870	0.01	0.070		0.000001
WGS		505.21	SCREW HEX	A-8.8 M8X80		32	32	64	No.	IS:1364PART-2,1367	0.06	3.720		0.000048
WGS		505.22	NUT HEX	A-8.8 M8		32	32	64	No.	IS:1364PART-2,1367	0.02	1.160		0.000015
WGS		505.23	WASHER MCD-ST9.0			64	64	128	No.	IS:2016-1967	0.01	0.800		0.000010
WGS		505.24	SCREW HEX FOR NRV FLANGE	A-8.8 M16X100		48	48	96	No.	IS:1364 PART-2,1367	0.15	14.400		0.000186
WGS		505.25	NUT HEX	A-8.8 M16		48	48	96	No.	IS:1364PART-2,1367	0.03	3.260		0.000042
WGS		505.26	WASHER MCD-ST17.0			96	96	192	No.	IS:2016-1967	0.01	2.120		0.000027
WGS		505.27	FLANGE, 80NB (BLIND)	AA7244703		2	2	4	No.	IS-2062 GR.B	4.77	19.080		0.000247
WGS		505.28	CONNECTION, 8NB	31500001190	06	3	3	6	No.	IS-2062 GR.B	0.06	0.360		0.000005
WGS		505.29	CONNECTION, 20NB	31500001190	03	1	1	2	No.	IS-2062 GR.B	0.14	0.284		0.000004
WGS	506	FROM COMMON HEADER 100NB TO ATM												
WGS		506.1	PIPE	114.3X6.02		80	80	160	Mtr.	ASTM A106 GR.B	16.08	2572.800		0.033277
WGS		506.2	BEND 90º	114.3X6.02		15	15	30	No.	A234 WPB, ASME B16.9	3.83	114.900		0.001486
WGS		506.3	TEE	114.3X6.02X88.9X5.49		2	2	4	No.	A234 WPB B16.9	5.76	23.040		0.000298
WGS		506.4	FLANGE, SORF, 100NB	31500001239	10	32	32	64	No.	IS-2062 GR.B, ASME B16.5	3.62	231.680		0.002997
WGS		506.5	GASKET VITON	158X115X3		16	16	32	No.	HW59870	0.06	1.920		0.000025
WGS		506.6	SCREW HEX	A-8.8 M16X80		128	128	256	No.	IS:1364PART-2,1367	0.12	31.740		0.000411
WGS		506.7	NUT HEX	A-8.8 M16		128	128	256	No.	IS:1364PART-2,1367	0.03	8.700		0.000113
WGS		506.8	WASHER MCD-ST17.0			256	256	512	No.	IS:2016-1967	0.01	5.640		0.000073
WGS		506.9	FLANGE, 100NB (BLIND)	AA7244703		1	1	2	No.	IS-2062 GR.B	5.65	11.300		0.000146
WGS		506.10	CONNECTION, 20NB	31500001190	03	1	1	2	No.	IS-2062 GR.B	0.14	0.284		0.000004
WGS		506.11	TEE	114.3X6.02X114.3X6.02		1	1	2	No.	A234 WPB B16.9	5.76	11.520		0.000149
WGS		506.12	REDUCER	114.3X6.02X88.9X5.49		1	1	2	No.	A234 WPB B16.9	1.71	3.420		0.000044
WGS	507	PIPE FITTINGS IN COMMON HEADER 150NB												
WGS		507.1	CONNECTION, 15NB	31500001190	02	1	1	2	No.	IS-2062 GR.B	0.10	0.200		0.000003
WGS		507.2	FLANGE, 25NB (FOR SIGHT GLASS)	31500001239	04	1	1	2	No.	IS-2062 GR.B	1.02	2.040		0.000026
WGS		507.3	GASKET VITON	68X39.5X3		1	1	2	No.	HW59870	0.03	0.060		0.000001
WGS		507.4	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367	0.07	0.560		0.000007
WGS		507.5	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-2,1367	0.02	0.140		0.000002
WGS		507.6	WASHER MCD-ST13.0			8	8	16	No.	IS:2016-1967	0.01	0.100		0.000001
WGS		507.7	FLANGE, 25NB (FOR VALVE)	31500001239	04	1	1	2	No.	IS-2062 GR.B	1.02	2.040		0.000026
WGS		507.8	GASKET VITON	68X39.5X3		1	1	2	No.	HW59870	0.03	0.060		0.000001
WGS		507.9	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367	0.07	0.560		0.000007
WGS		507.10	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-2,1367	0.02	0.140		0.000002
WGS		507.11	WASHER MCD-ST13.0			8	8	16	No.	IS:2016-1967	0.01	0.100		0.000001
WGS		507.12	CONNECTION, 50NB	31500001190	01	1	1	2	No.	IS-2062 GR.B	0.56	1.120		0.000014
WGS	508	PIPE FITTINGS IN COMMON HEAER 25NB												

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
WGS		508.1	CONNECTION, 20NB	31500001190	03	2	2	4	No.	IS-2062 GR.B	0.14	0.568		0.000007
WGS		508.2	FLANGE, 25NB (FOR SIGHT GLASS)	31500001239	04	1	1	2	No.	IS-2062 GR.B	1.02	2.040		0.000026
WGS		508.3	GASKET VITON	68X39.5X3		1	1	2	No.	HW59870	0.03	0.060		0.000001
WGS		508.4	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367	0.07	0.560		0.000007
WGS		508.5	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-2,1367	0.02	0.140		0.000002
WGS		508.6	WASHER MCD-ST13.0			8	8	16	No.	IS:2016-1967	0.01	0.100		0.000001
WGS		508.7	FLANGE, 25NB (FOR VALVE)	31500001239	04	1	1	2	No.	IS-2062 GR.B	1.02	2.040		0.000026
WGS		508.8	GASKET VITON	68X39.5X3		1	1	2	No.	HW59870	0.03	0.060		0.000001
WGS		508.9	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367	0.07	0.560		0.000007
WGS		508.10	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-2,1367	0.02	0.140		0.000002
WGS		508.11	WASHER MCD-ST13.0			8	8	16	No.	IS:2016-1967	0.01	0.100		0.000001
WGS	410	FROM TERM GAS DRIER VENT LINE TO ATM												
WGS	`	410.10	PIPE	60.3X3.91		60	60	120	Mtr.	ASTM SA106 GR.B	5.44	652.800		0.008443
WGS		410.20	BEND LR 90°	60.3X3.91		10	10	20	No.	ASTM A234 WPB,ASME B16.9	0.65	13.000		0.000168
WGS		410.30	TEE	60.3x60.3x3.91		1	1	2	No.	ASTM A234 WPB,ASME B16.9	1.09	2.180		0.000028
WGS		410.40	FLANGE, 50NB(FOR GAS DRIER)	31500001239	07	2	2	4	No.	IS:2062 E250 BR	2.18	8.720		0.000113
WGS		410.50	GASKET VITON	102X60X3		2	2	4	No.	HW59870	0.04	0.140		0.000002
WGS		410.60	SCREW HEX	A-8.8 M16X75		8	8	16	No.	IS:1364PART-2,1367PART-3	0.15	2.400		0.000031
WGS		410.70	NUT HEX	A-8.8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000007
WGS		410.80	WASHER MCD-ST17.0			16	16	32	No.	IS:2016-1967, IS:2062 E250 BR	0.01	0.352		0.000005
WGS		410.81	CONNECTION, 8NB	31500001190	06	1	1	2	No.	IS-2062 GR.B	0.06	0.120		0.000002
WGS		410.82	PIPE	13.7X2.24		20	20	40	Mtr.	ASTM SA106 GR.B	0.63	25.200		0.000326
WFS	600	FROM WASTE GAS SYSTEM 40/ 42 TO COMMON HEADER OF 50 NB												
WFS		600.1	PIPE	26.7X2.87		20	20	40	Mtr.	ASME A106 GR.B	1.69	67.600		0.000874
WFS		600.2	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS	601	FROM GIS 74 (LDR) TO COMMON HEADER OF 50 NB												
WFS		601.1	PIPE	33.4X3.38		20	20	40	Mtr.	ASME A106 GR.B	2.50	100.000		0.001293
WFS		601.2	STUB, 25NB	31500001190	08	1	1	2	No.	IS-2062 Gr.B	0.14	0.280		0.000004
WFS	602	FROM U-LOOP SEAL OIL SYS. 297 TO COMMON HEADER OF 50 NB												
WFS		602.1	PIPE	33.4X3.38		20	20	40	Mtr.	ASME A106 GR.B	2.50	100.000		0.001293
WFS		602.2	STUB, 20NB	31500001190	03	1	1	2	No.	IS-2062 Gr.B	0.14	0.284		0.000004
WFS	603	FROM 920 (SOUH) TO COMMON HEADER OF 50 NB												
WFS		603.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
WFS		603.2	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS	604	FROM 930 (SOUA) TO COMMON HEADER OF 50 NB												
WFS		604.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
WFS		604.2	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS	605	FROM 950 (SOUA) TO COMMON HEADER OF 50 NB												
WFS		605.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
WFS		605.2	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS	606	FROM 114 (GS)TO COMMON HEADER OF 50 NB												
WFS		606.1	PIPE	21.3X2.77		20	20	40	Mtr.	ASME A106 GR.B	1.27	50.800		0.000657
WFS		606.2	STUB, 15NB	31500001190	02	2	2	4	No.	IS-2062 Gr.B	0.12	0.460		0.000006
WFS	607	FROM 214 & 390 (PWS) TO COMMON HEADER OF 50 NB												
WFS		607.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
WFS		607.2	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS	608	FROM 585 (PWT) TO DRAIN OIL COLLECTOR												
WFS		608.1	PIPE	33.4X3.38		30	30	60	Mtr.	ASME A106 GR.B	2.50	150.000		0.001940
WFS		608.2	PIPE	114.3X6.02		1	1	2	Mtr.	ASME A106 GR.B	16.08	32.160		0.000416
WFS		608.3	REDUCER	114.3X6.02X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.55	3.100		0.000040
WFS		608.4	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
WFS		608.5	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS		608.6	TEE	33.7X33.7X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.30	0.600		0.000008
WFS	609	COMMON HEADER OF 50 NB TO DRAIN OIL COLLECTOR												
WFS		609.1	PIPE	60.3X3.91		20	20	40	Mtr.	ASME A106 GR.B	5.44	217.600		0.002814
WFS		609.2	BEND 90°	60.3X3.91		5	5	10	No.	A234 WPB, ASME B16.9	0.65	6.500		0.000084
WFS	610	FROM DRAIN OIL COLLECTOR TO WASTE DISPOSAL PIT												
WFS		610.1	PIPE	33.4X3.38		20	20	40	Mtr.	ASME A106 GR.B	2.50	100.000		0.001293
H2C	~~4~~	~~1.1~~	~~Delete~~	~~Delete~~										

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC 2x800MW Lara Super Thermal Power Plant

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
H2C	~~2~~	~~2.1~~	~~Delete~~	~~Delete~~										
H2C	3	3.1	PIPE	168.3X7.11		200	200	400	Mtr.	ASTM SA106 GR.B	28.23	11292.000		0.146050
H2C		3.2	PIPE	33.4X3.38		85	85	170	Mtr.	ASTM SA106 GR.B	2.50	425.000		0.005497
H2C		3.3	PIPE	21.3X2.77		100	100	200	Mtr.	ASTM SA106 GR.B	1.27	254.000		0.003285
H2C		3.4	PIPE	17.1X2.31		50	50	100	Mtr.	ASTM SA106 GR.B	0.84	84.000		0.001086
H2C		3.5	PIPE	13.7X2.24		20	20	40	Mtr.	ASTM SA106 GR.B	0.63	25.200		0.000326
H2C		3.6	BEND LR 45 °	168.3X7.11		16	16	32	No.	A234 WPB, ASME B16.9	6.65	212.800		0.002752
H2C		3.7	BEND LR 90º	168.3X7.11		80	80	160	No.	A234 WPB, ASME B16.9	9.98	1596.800		0.020653
H2C		3.8	CONNECTION	41500001118	00	16	16	32	No.	IS:2062 E250 BR	0.50	16.000		0.000207
H2C		3.9	CONNECTION 20 NB	41500001182	00	8	8	16	No.	IS:2062 E250 BR	0.50	8.000		0.000103
H2C		3.10	CONNECTION 15 NB	31500001190	02	8	8	16	No.	IS:2062 E250 BR	0.12	1.840		0.000024
H2C		3.11	THERMOWELL	41531401027		16	16	32	No.	ASTM A182 F321	0.40	12.800		0.000577
H2C		3.12	FLANGE NB150	31500001239	12	80	80	160	No.	IS:2062 E250 BR	6.00	960.000		0.012417
H2C		3.13	GASKET VITON	212X169X3TK		40	40	80	No.	HW59870	0.08	6.400		0.000083
H2C		3.14	SCRU HEX	A-8.8 M20X90		320	320	640	No.	IS:1364PART-2,1367	0.30	192.000		0.002483
H2C		3.15	NUT HEX	A-8.8 M20		320	320	640	No.	IS:1364PART-2,1367	0.06	39.680		0.000513
H2C		3.16	WASHER MCD-ST 21			640	640	1280	No.	IS:2016-1967	0.02	21.760		0.000281
H2C		3.17	FLANGE NB150 (C.F. OF VALVES)	31500001239	12	16	16	32	No.	IS:2062 E250 BR	6.00	192.000		0.002483
H2C		3.18	GASKET VITON	212X170X3TK		16	16	32	No.	HW59870	0.08	2.560		0.000033
H2C		3.19	SCREW HEX	A-8.8 M20X90		128	128	256	No.	IS:1364PART-2,1367	0.30	76.800		0.000993
H2C		3.20	NUT HEX	A-8.8 M20		128	128	256	No.	IS:1364PART-2,1367	0.06	15.872		0.000205
H2C		3.21	WASHER MCD-ST 21			256	256	512	No.	IS:2016-1967	0.02	8.704		0.000113
														1.000000

Lumpsum Price of GIP Package (Unit-1 & Unit-2) in INR (to be quoted by Vendor), A = _____

"Bidder's Confirmation"

1 **Bidder to Quote Lumpsum Price for Generator Integral Piping Package for the complete BOQ as listed above.**

2 **Bidder Evaluation shall be on overall L1 basis.**

3 Bidders to quote as per the Pre-Qualification Criteria provided in the NIT.

4 **Final ordering quantity may vary upto +/- 25% of the finalised package value, which shall be informed while placing purchase order.**

5 **The Unit Weights furnished above, shall be binding on the successful bidder. Any deviations/observations on unit weight of the above mentioned items to be brought up during Pre bid Queries only.**

6 **Unit Price (Per kg) for the individual line items shall be derived by multiplying the lumpsum price quoted/price finalized after RA, with the Price Weightage Factor and dividing the resultant by the total weight of the particular item.**

7 **Unit Price (Per kg) thus arrived, will be used for calculating any additional weight requirement during detail engineering due to increase in Length/Qty/Thickness etc.**

8 No Observations / Objections shall be entertained after the Techno-Commercial Bid is opened.

9 Bidder to indicate "Quoted" in the column "Bidder's Confirmation" as a confirmation of their bid to the respective item.

10 The Total Lump price quoted shall be INCLUSIVE of GST, Freight, Packing & Forwarding and Testing Charges.

11 The Total Lump price quoted shall be EXCLUSIVE of Third party inspection (TPI) & Insurance Charges.

12 Material for Unit-1 and Unit-2 shall be packed separately in line with the packing instructions provided in the NIT.

13 a) **SOS**: Seal Oil System b) **PWS**: Primary Water System c) **WGS**: Waste Gas System d) **WFS**: Waste Fluid System e) **H2C**: Hydrogen Cooler System f) **LDR**: Liquid Detector Rack

AMENDMENT-2 TO PEMC-07792- R00 (JOB SPECIFICATION FOR GENERATOR INTEGRAL PIPING PACKAGE)

ENQUIRY NO.: GEM/2024/B/5737519 DATED 21.12.2024

PROJECT : NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

CUSTOMER : NTPC

Sl. No.	Specification No. & Detail		Clause No.	Original Description/Requirement	New Description/Requirement
1.	Annexure-A to PEMC-07792-R00	BOQ cum Price Bid Format to be followed by the Bidder	5, Sl. No 2	Annexure-A : BOQ Sheet / Price Bid Format	Annexure-A (Rev-02): BOQ Sheet / Price Bid Format { (1. Annexure-A (Rev-01) of amendment-1 dated 04-01-25 is superseded by Annexure-A (Rev-02) attached with Amendment-2. (2. Changes in Annexure-A (Rev-02) are highlighted with Yellow color for ease of understanding of the Bidders. }

All other details shall be followed as per the Job Specification PEMC-07792 and its annexures & Sl. No.2 of Amendment-01 notified dated 04-01-25.

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	**11**	**76(SOU AIR SIDE)TO 72(SOVR)**												
SOS	1	later	PIPE SS	76.1X4		30	30	60	Mtr.	ASTM A312 TP321	7.12	426.900		0.019232
SOS	2	later	SS BEND 90 DEG	76.1X4		8	8	16	No.	A403 WP321, ASME B16.9	1.00	16.000		0.000721
SOS	3	later	SS REDUCER	88.9X76.1X3.6		1	1	2	No.	A403 WP321, ASME B16.9	0.50	1.000		0.000045
SOS	4	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	08	10	10	20	No.	ASTM A182 F321	2.67	53.400		0.002406
SOS	5	later	GASKET	31493201297	1	5	5	10	No.	HW59870	0.03	0.320		0.000014
SOS	6	later	SCRU HEX	A- 8.8 M16X75		40	40	80	No.	IS:1364PART-2,1367PART-3	0.15	12.000		0.000541
SOS	7	later	NUT HEX	A-8 M16		40	40	80	No.	IS:1364PART-3,1367PART-3	0.03	2.720		0.000123
SOS	8	later	WASHER MCD-ST	17		80	80	160	No.	IS:2016-1967	0.01	1.760		0.000079
SOS	9	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	08	1	1	2	No.	ASTM A182 F321	2.67	5.340		0.000241
SOS	10	later	GASKET	31493201297	1	1	1	2	No.	HW59870	0.03	0.064		0.000003
SOS	11	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	12	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	13	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	**12**	**80(SOUA) TO U-LOOP SOST**												
SOS	1	later	PIPE SS	76.1X4		40	40	80	Mtr.	ASTM A312 TP321	7.12	569.200		0.025642
SOS	2	later	SS BEND 90 DEG	76.1X4		10	10	20	No.	A403 WP321, ASME B16.9	1.00	20.000		0.000901
SOS	3	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	08	12	12	24	No.	ASTM A182 F321	2.67	64.080		0.002887
SOS	5	later	SCRU HEX	A- 8.8 M16X75		48	48	96	No.	IS:1364PART-2,1367PART-3	0.15	14.400		0.000649
SOS	6	later	NUT HEX	A-8 M16		48	48	96	No.	IS:1364PART-3,1367PART-3	0.03	3.264		0.000147
SOS	7	later	WASHER MCD-ST	17		96	96	192	No.	IS:2016-1967	0.01	2.112		0.000095
SOS	48	later	GASKET	31493201297	1	6	6	12	No.	HW59870	0.03	0.384		0.000017
SOS	**13**	**283 (SOUA) TO 467 (SOST)**												
SOS	1	later	PIPE SS	76.1X4		40	40	80	Mtr.	ASTM A312 TP321	7.12	569.200		0.025642
SOS	2	later	SS BEND 90 DEG	76.1X4		12	12	24	No.	A403 WP321, ASME B16.9	1.00	24.000		0.001081
SOS	3	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	08	12	12	24	No.	ASTM A182 F321	2.67	64.080		0.002887
SOS	4	later	GASKET	31493201297	1	6	6	12	No.	HW59870	0.03	0.384		0.000017
SOS	5	later	SCRU HEX	A- 8.8 M16X75		48	48	96	No.	IS:1364PART-2,1367PART-3	0.15	14.400		0.000649
SOS	6	later	NUT HEX	A-8 M16		48	48	96	No.	IS:1364PART-3,1367PART-3	0.03	3.264		0.000147
SOS	7	later	WASHER MCD-ST	17		96	96	192	No.	IS:2016-1967	0.01	2.112		0.000095
SOS	8	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	08	1	1	2	No.	ASTM A182 F321	2.67	5.340		0.000241
SOS	9	later	GASKET	31493201297	1	1	1	2	No.	HW59870	0.03	0.064		0.000003
SOS	10	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	11	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	12	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	**14**	**419(SOUA) TO TERM 294(SOST)**												
SOS	1	later	PIPE SS	114.3X3.6		40	40	80	Mtr.	ASTM A312 TP321	9.83	786.480		0.035430
SOS	2	later	SS BEND 90 DEG	114.3X3.6		12	12	24	No.	A403 WP321, ASME B16.9	2.70	64.800		0.002919
SOS	3	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	10	10	10	20	No.	ASTM A182 F321	3.62	72.400		0.003262
SOS	4	later	GASKET	31493201297	3	50	50	100	No.	HW59870	0.04	3.700		0.000167
SOS	5	later	SCRU HEX	A- 8.8 M16X80		80	80	160	No.	IS:1364PART-2,1367PART-3	0.15	24.000		0.001081
SOS	6	later	NUT HEX	A-8 M16		80	80	160	No.	IS:1364PART-3,1367PART-3	0.03	5.440		0.000245
SOS	7	later	WASHER MCD-ST	17		160	160	320	No.	IS:2016-1967	0.01	3.520		0.000159
SOS	8	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	19	2	2	4	No.	ASTM A182 F321	3.78	15.120		0.000681
SOS	9	later	GASKET	31493201297	3	2	2	4	No.	HW59870	0.04	0.148		0.000007
SOS	10	later	SCRU HEX	A- 8.8 M16X90		16	16	32	No.	IS:1364PART-2,1367PART-3	0.16	5.120		0.000231
SOS	11	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-3,1367PART-3	0.03	1.088		0.000049
SOS	12	later	WASHER MCD-ST	17		32	32	64	No.	IS:2016-1967	0.01	0.704		0.000032
SOS	**15**	**70A(SOVR) TO TERM 6A/6C(GEN)**												
SOS	1	later	PIPE SS	33.7X2.6		30	30	60	Mtr.	ASTM A312 TP321	2.00	119.700		0.005392
SOS	2	later	SS REDUCER	48.3X33.7X4		3	3	6	No.	A182F321, ASME B16.11	0.50	3.000		0.000135
SOS	3	later	S.S.TEE	33.7X33.7X4		1	1	2	No.	A182F321, ASME B16.11	0.43	0.860		0.000039
SOS	4	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
SOS	5	later	GASKET	31493201297	4	1	1	2	No.	HW59870	0.01	0.022		0.000001
SOS	6	later	SCRU HEX	A- 8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.07	0.560		0.000025
SOS	7	later	NUT HEX	A-8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.02	0.136		0.000006
SOS	8	later	WASHER MCD-ST	13		8	8	16	No.	IS:2016-1967	0.01	0.096		0.000004
SOS	9	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	10	10	20	No.	ASTM A182 F321	1.02	20.400		0.000919

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	10	later	GASKET	31493201297	4	5	5	10	No.	HW59870	0.01	0.110		0.000005
SOS	11	later	SCRU HEX	A- 8.8 M12X65		20	20	40	No.	IS:1364PART-2,1367PART-3	0.07	2.800		0.000126
SOS	12	later	NUT HEX	A-8 M12		20	20	40	No.	IS:1364PART-3,1367PART-3	0.02	0.680		0.000031
SOS	13	later	WASHER MCD-ST	13		40	40	80	No.	IS:2016-1967	0.01	0.480		0.000022
SOS	14	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	15	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	16	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	17	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	18	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	19	later	PIPE SS	48.3X4		1	1	2	Mtr.	ASTM A312 TP321	4.43	8.860		0.000399
SOS	**16**	**69A(SOVR) TO TERM 5A/5C(GEN)**												
SOS	1	later	PIPE SS	60.3X4		34	34	68	Mtr.	ASTM A312 TP321	5.55	377.400		0.017002
SOS	2	later	SS BEND 90 DEG	60.3X4		10	10	20	No.	A403 WP321, ASME B16.9	0.90	18.000		0.000811
SOS	3	later	SS REDUCER	60.3X48.3X4		2	2	4	No.	A182F321, ASME B16.11	0.50	2.000		0.000090
SOS	4	later	S.S.TEE	60.3.X60.3X4		1	1	2	No.	A403 WP321, ASME B16.9	1.49	2.980		0.000134
SOS	5	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	1	1	2	No.	ASTM A182 F321	2.18	4.360		0.000196
SOS	6	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000002
SOS	7	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	8	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	9	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	10	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	10	10	20	No.	ASTM A182 F321	2.18	43.600		0.001964
SOS	11	later	GASKET	31493201297	0	5	5	10	No.	HW59870	0.02	0.200		0.000009
SOS	12	later	SCRU HEX	A- 8.8 M16X75		20	20	40	No.	IS:1364PART-2,1367PART-3	0.15	6.000		0.000270
SOS	13	later	NUT HEX	A-8 M16		20	20	40	No.	IS:1364PART-3,1367PART-3	0.03	1.360		0.000061
SOS	14	later	WASHER MCD-ST	17		40	40	80	No.	IS:2016-1967	0.01	0.880		0.000040
SOS	15	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	16	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	17	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	18	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	19	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	20	later	PIPE SS	48.3X4		1	1	2	Mtr.	ASTM A312 TP321	4.43	8.860		0.000399
SOS	**17**	**TERM.68A (SOVR) TO 4A/4C**												
SOS	1	later	PIPE SS	60.3X4		34	34	68	Mtr.	ASTM A312 TP321	5.55	377.400		0.017002
SOS	2	later	SS BEND 90 DEG	60.3X4		12	12	24	No.	A403 WP321, ASME B16.9	0.90	21.600		0.000973
SOS	3	later	SS REDUCER	60.3X48.3X4		2	2	4	No.	A182F321, ASME B16.11	0.50	2.000		0.000090
SOS	4	later	S.S.TEE	60.3.X60.3X4		1	1	2	No.	A403 WP321, ASME B16.9	1.49	2.980		0.000134
SOS	5	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	1	1	2	No.	ASTM A182 F321	2.18	4.360		0.000196
SOS	6	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000002
SOS	7	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	8	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	9	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	10	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	10	10	20	No.	ASTM A182 F321	2.18	43.600		0.001964
SOS	11	later	GASKET	31493201297	0	5	5	10	No.	HW59870	0.02	0.200		0.000009
SOS	12	later	SCRU HEX	A- 8.8 M16X75		20	20	40	No.	IS:1364PART-2,1367PART-3	0.15	6.000		0.000270
SOS	13	later	NUT HEX	A-8 M16		20	20	40	No.	IS:1364PART-3,1367PART-3	0.03	1.360		0.000061
SOS	14	later	WASHER MCD-ST	17		40	40	80	No.	IS:2016-1967	0.01	0.880		0.000040
SOS	15	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	16	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	17	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	18	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	19	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	20	later	PIPE SS	48.3X4		1	1	2	Mtr.	ASTM A312 TP321	4.43	8.860		0.000399
SOS	**18**	**TERM.69B (SOVR) TO 5D/5B**												
SOS	1	later	PIPE SS	60.3X4		25	25	50	Mtr.	ASTM A312 TP321	5.55	277.500		0.012501
SOS	2	later	SS BEND 90 DEG	60.3X4		8	8	16	No.	A403 WP321, ASME B16.9	0.90	14.400		0.000649
SOS	3	later	SS REDUCER	60.3X48.3X4		2	2	4	No.	A182F321, ASME B16.11	0.50	2.000		0.000090
SOS	4	later	S.S.TEE	60.3.X60.3X4		1	1	2	No.	A403 WP321, ASME B16.9	1.49	2.980		0.000134
SOS	5	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	1	1	2	No.	ASTM A182 F321	2.18	4.360		0.000196
SOS	6	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000002

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	7	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	8	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	9	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	10	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	10	10	20	No.	ASTM A182 F321	2.18	43.600		0.001964
SOS	11	later	GASKET	31493201297	0	5	5	10	No.	HW59870	0.02	0.200		0.000009
SOS	12	later	SCRU HEX	A- 8.8 M16X75		20	20	40	No.	IS:1364PART-2,1367PART-3	0.15	6.000		0.000270
SOS	13	later	NUT HEX	A-8 M16		20	20	40	No.	IS:1364PART-3,1367PART-3	0.03	1.360		0.000061
SOS	14	later	WASHER MCD-ST	17		40	40	80	No.	IS:2016-1967	0.01	0.880		0.000040
SOS	15	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	16	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	17	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	18	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	19	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	20	later	PIPE SS	48.3X4		1	1	2	Mtr.	ASTM A312 TP321	4.43	8.860		0.000399
SOS	**19**	**TERM. 68B (SOVR) TO 4B/4D**												
SOS	1	later	PIPE SS	60.3X4		27	27	54	Mtr.	ASTM A312 TP321	5.55	299.700		0.013501
SOS	2	later	SS BEND 90 DEG	60.3X4		10	10	20	No.	A403 WP321, ASME B16.9	0.90	18.000		0.000811
SOS	3	later	SS REDUCER	60.3X48.3X4		2	2	4	No.	A182F321, ASME B16.11	0.50	2.000		0.000090
SOS	4	later	S.S.TEE	60.3.X60.3X4		1	1	2	No.	A403 WP321, ASME B16.9	1.49	2.980		0.000134
SOS	5	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	1	1	2	No.	ASTM A182 F321	2.18	4.360		0.000196
SOS	6	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000002
SOS	7	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	8	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	9	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	10	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	10	10	20	No.	ASTM A182 F321	2.18	43.600		0.001964
SOS	11	later	GASKET	31493201297	0	5	5	10	No.	HW59870	0.02	0.200		0.000009
SOS	12	later	SCRU HEX	A- 8.8 M16X75		20	20	40	No.	IS:1364PART-2,1367PART-3	0.15	6.000		0.000270
SOS	13	later	NUT HEX	A-8 M16		20	20	40	No.	IS:1364PART-3,1367PART-3	0.03	1.360		0.000061
SOS	14	later	WASHER MCD-ST	17		40	40	80	No.	IS:2016-1967	0.01	0.880		0.000040
SOS	15	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	16	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	17	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	18	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	19	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	20	later	PIPE SS	48.3X4		1	1	2	Mtr.	ASTM A312 TP321	4.43	8.860		0.000399
SOS	**20**	**TERM 69D(SOVR) TO 12B(GEN)**												
SOS	1	later	PIPE SS	13.7X1.65		21	21	42	Mtr.	ASTM A312 TP321	0.49	20.580		0.000927
SOS	2	later	ADAPTOR	41531401125		1	1	2	No.		0.20	0.400		0.000018
SOS	3	later	SS REDUCER	21.3X13.5X2		1	1	2	No.	A182F321, ASME B16.11	0.10	0.200		0.000009
SOS	**21**	**TERM 68D(SOVR) TO 14B(GEN)**												
SOS	1	later	PIPE SS	13.7X1.65		25	25	50	Mtr.	ASTM A312 TP321	0.49	24.500		0.001104
SOS	2	later	ADAPTOR	41531401125		1	1	2	No.		0.20	0.400		0.000018
SOS	3	later	SS REDUCER	21.3X13.5X2		1	1	2	No.	A182F321, ASME B16.11	0.10	0.200		0.000009
SOS	**22**	**TERM 69C(SOVR) TO 12A(GEN)**												
SOS	1	later	PIPE SS	13.7X1.65		30	30	60	Mtr.	ASTM A312 TP321	0.49	29.400		0.001324
SOS	2	later	ADAPTOR	41531401125		1	1	2	No.		0.20	0.400		0.000018
SOS	3	later	SS REDUCER	21.3X13.5X2		1	1	2	No.	A182F321, ASME B16.11	0.10	0.200		0.000009
SOS	**23**	**TERM 68C(SOVR) TO 14A(GEN)**												
SOS	1	later	PIPE SS	13.7X1.65		30	30	60	Mtr.	ASTM A312 TP321	0.49	29.400		0.001324
SOS	2	later	ADAPTOR	41531401125		1	1	2	No.		0.20	0.400		0.000018
SOS	3	later	SS REDUCER	21.3X13.5X2		1	1	2	No.	A182F321, ASME B16.11	0.10	0.200		0.000009
SOS	**24**	**TERM 438(SOUH) TO 439(SOVR)**												
SOS	1	later	PIPE SS	33.7X2.6		30	30	60	Mtr.	ASTM A312 TP321	2.00	119.700		0.005392
SOS	2	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
SOS	3	later	GASKET	31493201297	4	1	1	2	No.	HW59870	0.01	0.022		0.000001
SOS	4	later	SCRU HEX	A- 8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.07	0.560		0.000025
SOS	5	later	NUT HEX	A-8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.02	0.136		0.000006
SOS	6	later	WASHER MCD-ST	13		8	8	16	No.	IS:2016-1967	0.01	0.096		0.000004
SOS	7	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	10	10	20	No.	ASTM A182 F321	1.02	20.400		0.000919

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	8	later	GASKET	31493201297	4	5	5	10	No.	HW59870	0.01	0.110		0.000005
SOS	9	later	SCRU HEX	A- 8.8 M12X65		40	40	80	No.	IS:1364PART-2,1367PART-3	0.07	5.600		0.000252
SOS	10	later	NUT HEX	A-8 M12		40	40	80	No.	IS:1364PART-3,1367PART-3	0.02	1.360		0.000061
SOS	11	later	WASHER MCD-ST	13		80	80	160	No.	IS:2016-1967	0.01	0.960		0.000043
SOS	25	TERM 78 (SOUH) TO 7A/7B (GEN)												
SOS	1	later	PIPE SS	114.3X3.6		63	63	126	Mtr.	ASTM A312 TP321	9.83	1238.706		0.055803
SOS	2	later	SS BEND 90 DEG	114.3X3.6		18	18	36	No.	A403 WP321, ASME B16.9	2.70	97.200		0.004379
SOS	3	later	S.S.TEE	114.3X114.3X3.6		1	1	2	No.	A403 WP321, ASME B16.9	5.76	11.520		0.000519
SOS	4	later	SS FLANGE GROOVED	31500001245	0	10	10	20	No.	ASTM A182 F321	4.58	91.600		0.004127
SOS	5	later	SS WN FLANGE	31531401194	4	10	10	20	No.	ASTM A182 F321	4.58	91.600		0.004127
SOS	6	later	O-RING 123X4	123X4		12	12	24	No.	HW59870	0.01	0.240		0.000011
SOS	7	later	SCRU HEX	A- 8.8 M16X80		80	80	160	No.	IS:1364PART-2,1367PART-3	0.15	24.000		0.001081
SOS	8	later	NUT HEX	A-8 M16		80	80	160	No.	IS:1364PART-3,1367PART-3	0.03	5.440		0.000245
SOS	9	later	WASHER MCD-ST	17		148	148	296	No.	IS:2016-1967	0.01	3.256		0.000147
SOS	10	later	SS FLANGE GROOVED	31500001245	0	2	2	4	No.	ASTM A182 F321	4.58	18.320		0.000825
SOS	11	later	O-RING 123X4	123X4		2	2	4	No.	HW59870	0.01	0.040		0.000002
SOS	12	later	SCRU HEX	A- 8.8 M16X80		16	16	32	No.	IS:1364PART-2,1367PART-3	0.15	4.800		0.000216
SOS	13	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-3,1367PART-3	0.03	1.088		0.000049
SOS	14	later	WASHER MCD-ST	17		32	32	64	No.	IS:2016-1967	0.01	0.704		0.000032
SOS	26	U LOOPTO TERM450(DPR LINESOVR)												
SOS	1	later	PIPE SS	21.3X2.6		25	25	50	Mtr.	ASTM A312 TP321	1.20	59.950		0.002701
SOS	2	later	CONNECTION, 15NB	31500001190	02	2	2	4	No.	ASTM A182 F321	0.12	0.460		0.000021
SOS	27	TERM 79 (SOUH) TO 295 (SOST)												
SOS	1	later	PIPE SS	114.3X3.6		30	30	60	Mtr.	ASTM A312 TP321	9.83	589.860		0.026573
SOS	2	later	SS REDUCER	114.3X60.3X3.6		1	1	2	No.	A403 WP321, ASME B16.9	1.44	2.880		0.000130
SOS	3	later	SS REDUCER	60.3X33.7X4		1	1	2	No.	A182F321, ASME B16.11	0.50	1.000		0.000045
SOS	4	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	10	1	1	2	No.	ASTM A182 F321	3.62	7.240		0.000326
SOS	5	later	GASKET	31493201297	3	1	1	2	No.	HW59870	0.04	0.074		0.000003
SOS	6	later	SCRU HEX	A- 8.8 M16X80		8	8	16	No.	IS:1364PART-2,1367PART-3	0.15	2.400		0.000108
SOS	7	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	8	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
SOS	9	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	10	10	10	20	No.	ASTM A182 F321	3.62	72.400		0.003262
SOS	10	later	GASKET	31493201297	3	5	5	10	No.	HW59870	0.04	0.370		0.000017
SOS	11	later	SCRU HEX	A- 8.8 M16X80		40	40	80	No.	IS:1364PART-2,1367PART-3	0.15	12.000		0.000541
SOS	12	later	NUT HEX	A-8 M16		40	40	80	No.	IS:1364PART-3,1367PART-3	0.03	2.720		0.000123
SOS	13	later	WASHER MCD-ST	13		80	80	160	No.	IS:2016-1967	0.01	0.960		0.000043
SOS	14	later	SS BEND 90 DEG	114.3X3.6		12	12	24	No.	A403 WP321, ASME B16.9	2.70	64.800		0.002919
SOS	28	TERM 75(SOUH) TO 71(SOVR)												
SOS	1	later	PIPE SS	60.3X4		30	30	60	Mtr.	ASTM A312 TP321	5.55	333.000		0.015001
SOS	2	later	SS BEND 90 DEG	60.3X4		8	8	16	No.	A403 WP321, ASME B16.9	0.90	14.400		0.000649
SOS	3	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	1	1	2	No.	ASTM A182 F321	2.18	4.360		0.000196
SOS	4	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000002
SOS	5	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000054
SOS	6	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.03	0.272		0.000012
SOS	7	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000008
SOS	8	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	07	12	12	24	No.	ASTM A182 F321	2.18	52.320		0.002357
SOS	9	later	GASKET	31493201297	0	6	6	12	No.	HW59870	0.02	0.240		0.000011
SOS	10	later	SCRU HEX	A- 8.8 M16X75		24	24	48	No.	IS:1364PART-2,1367PART-3	0.15	7.200		0.000324
SOS	11	later	NUT HEX	A-8 M16		24	24	48	No.	IS:1364PART-3,1367PART-3	0.03	1.632		0.000074
SOS	12	later	WASHER MCD-ST	17		48	48	96	No.	IS:2016-1967	0.01	1.056		0.000048
SOS	29	921(PEM)TO SO CLR AIR SIDE SOU												
SOS	1	later	PIPE CS	114.3X6.02		5	5	10	Mtr.	ASME A106 GR.B	16.08	160.800		0.002080
SOS	2	later	BEND 90 DEG	114.3X6.02		3	3	6	No.	A234 WPB, ASME B16.9	3.83	22.980		0.000297
SOS	3	later	TEE	114.3X114.3X6.02		1	1	2	No.	A234 WPB, ASME B16.9	5.76	11.520		0.000149
SOS	4	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	2	2	4	No.	IS-2062 GR.B	3.62	14.480		0.000187
SOS	5	later	GASKET	31493201297	3	2	2	4	No.	HW59870	0.04	0.148		0.000002
SOS	6	later	SCRU HEX	A- 8.8 M16X80		16	16	32	No.	IS:1364PART-2,1367	0.15	4.800		0.000062
SOS	7	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-2,1367	0.03	1.088		0.000014
SOS	8	later	WASHER MCD-ST	17		32	32	64	No.	IS:2016-1967	0.01	0.704		0.000009

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	9	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	2	2	4	No.	IS-2062 GR.B	3.62	14.480		0.000187
SOS	10	later	GASKET	31493201297	3	1	1	2	No.	HW59870	0.04	0.074		0.000001
SOS	11	later	SCRU HEX	A- 8.8 M16X80		8	8	16	No.	IS:1364PART-2,1367	0.15	2.400		0.000031
SOS	12	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-2,1367	0.03	0.544		0.000007
SOS	13	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000005
SOS	14	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	4	4	8	No.	IS-2062 GR.B	3.62	28.960		0.000375
SOS	15	later	GASKET	31493201297	3	4	4	8	No.	HW59870	0.04	0.296		0.000004
SOS	16	later	SCRU HEX	A- 8.8 M16X80		32	32	64	No.	IS:1364PART-2,1367	0.15	9.600		0.000124
SOS	17	later	NUT HEX	A-8 M16		32	32	64	No.	IS:1364PART-2,1367	0.03	2.176		0.000028
SOS	18	later	WASHER MCD-ST	17		64	64	128	No.	IS:2016-1967	0.01	1.408		0.000018
SOS	19	later	CONNECTION, 15NB	31500001190	02	2	2	4	No.	IS-2062 GR.B	0.12	0.460		0.000006
SOS	20	later	REDUCER	168.3X7.11X114.3X6.02		1	1	2	No.	A234 WPB, ASME B16.9	3.94	7.880		0.000102
SOS	30	SO CLR AIR SIDE SOU TO922(PEM)												
SOS	1	later	PIPE CS	114.3X6.02		5	5	10	Mtr.	ASME A106 GR.B	16.08	160.800		0.002080
SOS	2	later	BEND 90 DEG	114.3X6.02		3	3	6	No.	A234 WPB, ASME B16.9	3.83	22.980		0.000297
SOS	3	later	TEE	114.3X114.3X6.02		1	1	2	No.	A234 WPB, ASME B16.9	5.76	11.520		0.000149
SOS	4	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	2	2	4	No.	IS-2062 GR.B	3.62	14.480		0.000187
SOS	5	later	GASKET	31493201297	3	2	2	4	No.	HW59870	0.04	0.148		0.000002
SOS	6	later	SCRU HEX	A- 8.8 M16X80		16	16	32	No.	IS:1364PART-2,1367	0.15	4.800		0.000062
SOS	7	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-2,1367	0.03	1.088		0.000014
SOS	8	later	WASHER MCD-ST	17		32	32	64	No.	IS:2016-1967	0.01	0.704		0.000009
SOS	9	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	2	2	4	No.	IS-2062 GR.B	3.62	14.480		0.000187
SOS	10	later	GASKET	31493201297	3	1	1	2	No.	HW59870	0.04	0.074		0.000001
SOS	11	later	SCRU HEX	A- 8.8 M16X80		8	8	16	No.	IS:1364PART-2,1367	0.15	2.400		0.000031
SOS	12	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-2,1367	0.03	0.544		0.000007
SOS	13	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000005
SOS	14	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	10	4	4	8	No.	IS-2062 GR.B	3.62	28.960		0.000375
SOS	15	later	GASKET	31493201297	3	4	4	8	No.	HW59870	0.04	0.296		0.000004
SOS	16	later	SCRU HEX	A- 8.8 M16X80		32	32	64	No.	IS:1364PART-2,1367	0.15	9.600		0.000124
SOS	17	later	NUT HEX	A-8 M16		32	32	64	No.	IS:1364PART-2,1367	0.03	2.176		0.000028
SOS	18	later	WASHER MCD-ST	17		64	64	128	No.	IS:2016-1967	0.01	1.408		0.000018
SOS	19	later	CONNECTION, 15NB	31500001190	02	2	2	4	No.	IS-2062 GR.B	0.12	0.460		0.000006
SOS	20	later	REDUCER	168.3X7.11X114.3X6.02		1	1	2	No.	A234 WPB, ASME B16.9	3.94	7.880		0.000102
SOS	31	931(PEM) TO SO CLR H2 SIDE SOU												
SOS	1	later	PIPE CS	60.3X3.91		5	5	10	Mtr.	ASME A106 GR.B	5.44	54.400		0.000704
SOS	2	later	BEND 90 DEG	60.3X3.91		3	3	6	No.	A234 WPB, ASME B16.9	0.65	3.900		0.000050
SOS	3	later	TEE	60.3X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.09	2.180		0.000028
SOS	4	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	2	2	4	No.	IS-2062 GR.B	2.18	8.720		0.000113
SOS	5	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000001
SOS	6	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
SOS	7	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-2,1367	0.03	0.272		0.000004
SOS	8	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000002
SOS	9	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	4	4	8	No.	IS-2062 GR.B	2.18	17.440		0.000226
SOS	10	later	GASKET	31493201297	0	4	4	8	No.	HW59870	0.02	0.160		0.000002
SOS	11	later	SCRU HEX	A- 8.8 M16X75		16	16	32	No.	IS:1364PART-2,1367	0.15	4.800		0.000062
SOS	12	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-2,1367	0.03	1.088		0.000014
SOS	13	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000005
SOS	14	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	2	2	4	No.	IS-2062 GR.B	2.18	8.720		0.000113
SOS	15	later	GASKET	31493201297	0	4	4	8	No.	HW59870	0.02	0.160		0.000002
SOS	16	later	SCRU HEX	A- 8.8 M16X75		32	32	64	No.	IS:1364PART-2,1367	0.15	9.600		0.000124
SOS	17	later	NUT HEX	A-8 M16		32	32	64	No.	IS:1364PART-2,1367	0.03	2.176		0.000028
SOS	18	later	WASHER MCD-ST	17		64	64	128	No.	IS:2016-1967	0.01	1.408		0.000018
SOS	19	later	CONNECTION, 15NB	31500001190	02	2	2	4	No.	IS-2062 GR.B	0.12	0.460		0.000006
SOS	20	later	REDUCER	114.3X6.02X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.55	3.100		0.000040
SOS	32	SO CLR H2 SIDE SOU TO 932(PEM)												
SOS	1	later	PIPE CS	60.3X3.91		5	5	10	Mtr.	ASME A106 GR.B	5.44	54.400		0.000704
SOS	2	later	BEND 90 DEG	60.3X3.91		3	3	6	No.	A234 WPB, ASME B16.9	0.65	3.900		0.000050
SOS	3	later	TEE	60.3X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.09	2.180		0.000028
SOS	4	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	2	2	4	No.	IS-2062 GR.B	2.18	8.720		0.000113

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
SOS	5	later	GASKET	31493201297	0	1	1	2	No.	HW59870	0.02	0.040		0.000001
SOS	6	later	SCRU HEX	A- 8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
SOS	7	later	NUT HEX	A-8 M16		4	4	8	No.	IS:1364PART-2,1367	0.03	0.272		0.000004
SOS	8	later	WASHER MCD-ST	17		8	8	16	No.	IS:2016-1967	0.01	0.176		0.000002
SOS	9	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	4	4	8	No.	IS-2062 GR.B	2.18	17.440		0.000226
SOS	10	later	GASKET	31493201297	0	4	4	8	No.	HW59870	0.02	0.160		0.000002
SOS	11	later	SCRU HEX	A- 8.8 M16X75		16	16	32	No.	IS:1364PART-2,1367	0.15	4.800		0.000062
SOS	12	later	NUT HEX	A-8 M16		16	16	32	No.	IS:1364PART-2,1367	0.03	1.088		0.000014
SOS	13	later	WASHER MCD-ST	17		32	32	64	No.	IS:2016-1967	0.01	0.704		0.000009
SOS	14	later	FLANGE PN16 FOR TG PIPING (CS)	31500001239	07	2	2	4	No.	IS-2062 GR.B	2.18	8.720		0.000113
SOS	15	later	GASKET	31493201297	0	2	2	4	No.	HW59870	0.02	0.080		0.000001
SOS	16	later	SCRU HEX	A- 8.8 M16X75		8	8	16	No.	IS:1364PART-2,1367	0.15	2.400		0.000031
SOS	17	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-2,1367	0.03	0.544		0.000007
SOS	18	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000005
SOS	19	later	CONNECTION, 15NB	31500001190	02	2	2	4	No.	IS-2062 GR.B	0.12	0.460		0.000006
SOS	20	later	REDUCER	114.3X6.02X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.55	3.100		0.000040
SOS	**33**	**70B(SOVR) TO 6B/6D(GEN)**												
SOS	1	later	PIPE SS	33.7X2.6		30	30	60	Mtr.	ASTM A312 TP321	2.00	119.700		0.005392
SOS	2	later	SS REDUCER	48.3X33.7X4		2	2	4	No.	A182F321, ASME B16.11	0.50	2.000		0.000090
SOS	3	later	S.S.TEE	33.7X33.7X4		1	1	2	No.	A182F321, ASME B16.11	0.43	0.860		0.000039
SOS	4	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
SOS	5	later	GASKET	31493201297	4	1	1	2	No.	HW59870	0.01	0.022		0.000001
SOS	6	later	SCRU HEX	A- 8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.07	0.560		0.000025
SOS	7	later	NUT HEX	A-8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.02	0.136		0.000006
SOS	8	later	WASHER MCD-ST	13		8	8	16	No.	IS:2016-1967	0.01	0.096		0.000004
SOS	9	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	04	10	10	20	No.	ASTM A182 F321	1.02	20.400		0.000919
SOS	10	later	GASKET	31493201297	4	5	5	10	No.	HW59870	0.01	0.110		0.000005
SOS	11	later	SCRU HEX	A- 8.8 M12X65		20	20	40	No.	IS:1364PART-2,1367PART-3	0.07	2.800		0.000126
SOS	12	later	NUT HEX	A-8 M12		20	20	40	No.	IS:1364PART-3,1367PART-3	0.02	0.680		0.000031
SOS	13	later	WASHER MCD-ST	13		40	40	80	No.	IS:2016-1967	0.01	0.480		0.000022
SOS	14	later	FLANGE PN16 FOR TG PIPING (SS)	31500001240	06	2	2	4	No.	ASTM A182 F321	1.77	7.080		0.000319
SOS	15	later	GASKET	31493201297	6	2	2	4	No.	HW59870	0.02	0.068		0.000003
SOS	16	later	SCRU HEX	A- 8.8 M16X65		8	8	16	No.	IS:1364PART-2,1367PART-3	0.13	2.080		0.000094
SOS	17	later	NUT HEX	A-8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000025
SOS	18	later	WASHER MCD-ST	17		16	16	32	No.	IS:2016-1967	0.01	0.352		0.000016
GS	**1**	**FROM TERM. 95 (H2 DIST.) TO 94 (GU)**												
GS		1.1	PIPE CS	33.4X3.38		29	29	58	Mtr.	ASME A106 GR.B	2.50	145.000		0.001875
GS	**2**	**FROM TERM. 90(GU) TO 16(GEN)**												
GS		2.1	PIPE CS	60.3X3.91		40	40	80	Mtr.	ASME A106 GR.B	5.44	435.200		0.005629
GS		2.2	BEND 90°	60.3X3.91		10	10	20	No.	A234 WPB, ASME B16.9	0.65	13.000		0.000168
GS		2.3	FLANGE, 50NB (GU END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		2.4	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		2.5	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		2.6	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		2.7	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
GS		2.8	FLANGE, 50NB (GEN END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		2.9	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		2.10	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		2.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		2.12	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
GS	**3**	**FROM TERM. 97 (CO2 DIST.) TO TERM 96 (GU)**												
GS		3.1	PIPE CS	60.3X3.91		23	23	46	Mtr.	ASME A106 GR.B	5.44	250.240		0.003237
GS		3.2	BEND 90°	60.3X3.91		5	5	10	No.	A234 WPB, ASME B16.9	0.65	6.500		0.000084
GS		3.3	FLANGE, 50NB (GU END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		3.4	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		3.5	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		3.6	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		3.7	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		3.8	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
GS		3.9	FLANGE, 50NB (CO2 DIST. END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		3.10	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		3.11	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		3.12	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		3.13	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
GS	4	FROM TERM. 91(GU) TO 15(GEN)												
GS		4.1	PIPE CS	60.3X3.91		40	40	80	Mtr.	ASME A106 GR.B	5.44	435.200		0.005629
GS		4.2	BEND 90º	60.3X3.91		9	9	18	No.	A234 WPB, ASME B16.9	0.65	11.700		0.000151
GS		4.3	FLANGE, 50NB (GU END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		4.4	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		4.5	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		4.6	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		4.7	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		4.8	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
GS		4.9	FLANGE, 50NB (FOR GEN END)	31492501005	00	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
GS		4.10	O-RING	41492501071	00	1	1	2	No.	HW59870	0.04	0.080		0.000001
GS		4.11	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
GS		4.12	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
GS		4.13	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
GS	5	FROM TERM. 19(GEN) TO 110/113 (GAS DRIER)												
GS		5.1	PIPE	60.3X3.91		40	40	80	Mtr.	ASME A106 GR.B	5.44	435.200		0.005629
GS		5.2	BEND 90º	60.3X3.91		7	7	14	No.	A234 WPB, ASME B16.9	0.65	9.100		0.000118
GS		5.3	TEE	60.3X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.09	2.180		0.000028
GS		5.4	FLANGE, 50NB (FOR VLV, GAS DRIER,OIL TRAP,GEN END)	31492501005	00	11	11	22	No.	IS-2062 GR.B	2.50	55.000		0.000711
GS		5.5	O-RING	41492501071	00	11	11	22	No.	HW59870	0.04	0.880		0.000011
GS		5.6	SCREW HEX	A-8.8 M16X75		44	44	88	No.	IS:1364PART-2,1367	0.15	13.200		0.000171
GS		5.7	NUT HEX	A-8.8 M16		44	44	88	No.	IS:1364PART-2,1367	0.03	3.000		0.000039
GS		5.8	WASHER MCD-ST17.0			88	88	176	No.	IS:2016-1967	0.01	1.940		0.000025
GS		5.9	CONNECTION, 8NB	31500001190	06	1	1	2	No.	IS-2062 GR.B	0.06	0.120		0.000002
GS		5.10	PIPE	13.7X2.24		18	18	36	Mtr.	ASTM SA106 GR.B	0.63	22.680		0.000293
GS		5.11	PIPE	21.3X2.77		18	18	36	Mtr.	ASME A106 GR.B	1.27	45.720		0.000591
GS	6	FROM TERM. 111/112 (GAS DRIER) TO 20 (GEN)												
GS		6.1	PIPE CS	60.3X3.91		40	40	80	Mtr.	ASME A106 GR.B	5.44	435.200		0.005629
GS		6.2	BEND 90º	60.3X3.91		5	5	10	No.	A234 WPB, ASME B16.9	0.65	6.500		0.000084
GS		6.3	TEE	60.3X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.09	2.180		0.000028
GS		6.4	FLANGE,50NB (FOR VLV,GAS DRIER, GEN END)	31492501005	00	9	9	18	No.	IS-2062 GR.B	2.50	45.000		0.000582
GS		6.5	O-RING	41492501071	00	9	9	18	No.	HW59870	0.04	0.720		0.000009
GS		6.6	SCREW HEX	A-8.8 M16X75		36	36	72	No.	IS:1364PART-2,1367	0.15	10.800		0.000140
GS		6.7	NUT HEX	A-8.8 M16		36	36	72	No.	IS:1364PART-2,1367	0.03	2.440		0.000032
GS		6.8	WASHER MCD-ST17.0			72	72	144	No.	IS:2016-1967	0.01	1.580		0.000020
GS		6.9	CONNECTION, 8NB	31500001190	06	1	1	2	No.	IS-2062 GR.B	0.06	0.120		0.000002
GS	7	FROM TERM. 107 (GU) TO 313A/B (GAC)												
GS		7.1	PIPE CS	13.7X2.24		15	15	30	Mtr.	ASME A106 GR.B	0.63	18.900		0.000244
GS		7.2	TEE	13.7X13.7X2.24		1	1	2	No.	A234 WPB, ASME B16.9	0.15	0.300		0.000004
LDR	201	PIPE ASSEMBLY FROM TERM. 21A/B/C(GEN) TO 61A/B/C(LDR)												
LDR		201.1	PIPE	33.4X3.38		78	78	156	Mtr.	ASME A106 GR.B	2.50	390.000		0.005044
LDR		201.2	REDUCER	60.3X3.91X33.4X3.38		3	3	6	No.	A234 WPB, ASME B16.9	0.40	2.400		0.000031
LDR		201.3	FLANGE, 25NB	31500001239	04	30	30	60	No.	IS-2062 GR.B	1.02	61.200		0.000792
LDR		201.4	GASKET VITON	68X34X3		15	15	30	No.	HW59870	0.03	0.900		0.000012
LDR		201.5	SCREW HEX	A-8.8 M12X65		60	60	120	No.	IS:1364PART-2,1367PART-3	0.07	8.400		0.000109
LDR		201.6	NUT HEX	A-8.8 M12		60	60	120	No.	IS:1364PART-3,1367PART-3	0.02	2.160		0.000028
LDR		201.7	WASHER MCD-ST 13			120	120	240	No.	IS:2016-1967	0.01	1.480		0.000019
LDR		201.8	FLANGE, 50NB (FOR 21B TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056
LDR		201.9	GASKET VITON	102X60X3		4	4	8	No.	HW59870	0.04	0.280		0.000004
LDR		201.10	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000016
LDR		201.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		201.12	WASHER MCD-ST17.0			4	4	8	No.	IS:2016-1967	0.01	0.080		0.000001

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
LDR		201.13	FLANGE, 50NB (FOR 21A/C TP GEN END)	31500001239	07	2	2	4	No.	IS-2062 GR.B	2.18	8.720		0.000113
LDR		201.14	GASKET VITON	102X60X3		8	8	16	No.	HW59870	0.04	0.560		0.000007
LDR		201.15	SCREW HEX	A-8.8 M16X75		8	8	16	No.	IS:1364PART-2,1367PART-3	0.15	2.400		0.000031
LDR		201.16	NUT HEX	A-8.8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.04	0.640		0.000008
LDR		201.17	WASHER MCD-ST13.0			4	4	8	No.	IS:2016-1967	0.01	0.040		0.000001
LDR	202	PIPE ASSEMBLY FROM TERM.22(GEN) TO 62(LDR)												
LDR		202.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
LDR		202.2	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
LDR		202.3	FLANGE, 25NB	31500001239	04	6	6	12	No.	IS-2062 GR.B	1.02	12.240		0.000158
LDR		202.4	GASKET VITON	68X34X3		3	3	6	No.	HW59870	0.03	0.180		0.000002
LDR		202.5	SCREW HEX	A-8.8 M12X65		12	12	24	No.	IS:1364PART-2,1367PART-3	0.07	1.680		0.000022
LDR		202.6	NUT HEX	A-8.8 M12		12	12	24	No.	IS:1364PART-3,1367PART-3	0.02	0.440		0.000006
LDR		202.7	WASHER MCD-ST 13			24	24	48	No.	IS:2016-1967	0.01	0.300		0.000004
LDR		202.8	FLANGE, 50NB (FOR 22 TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056
LDR		202.9	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
LDR		202.10	SCREW HEX	A-8.8 M16X60		4	4	8	No.	IS:1364PART-2,1367PART-3	0.13	1.000		0.000013
LDR		202.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		202.12	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
LDR	203	PIPE ASSEMBLY FROM TERM. 23/25(GEN) TO 63/64(LDR)												
LDR		203.1	PIPE	33.4X3.38		50	50	100	Mtr.	ASME A106 GR.B	2.50	250.000		0.003233
LDR		203.2	REDUCER	60.3X3.91X33.4X3.38		2	2	4	No.	A234 WPB, ASME B16.9	0.40	1.600		0.000021
LDR		203.3	FLANGE, 25NB	31500001239	04	12	12	24	No.	IS-2062 GR.B	1.02	24.480		0.000317
LDR		203.4	GASKET VITON	68X34X3		6	6	12	No.	HW59870	0.03	0.360		0.000005
LDR		203.5	SCREW HEX	A-8.8 M12X65		24	24	48	No.	IS:1364PART-2,1367PART-3	0.07	3.360		0.000043
LDR		203.6	NUT HEX	A-8.8 M12		24	24	48	No.	IS:1364PART-3,1367PART-3	0.02	0.860		0.000011
LDR		203.7	WASHER MCD-ST 13			45	45	90	No.	IS:2016-1967	0.01	0.560		0.000007
LDR		203.8	FLANGE, 50NB (FOR 23 TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056
LDR		203.9	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
LDR		203.10	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000016
LDR		203.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		203.12	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
LDR		203.13	FLANGE, 50NB (FOR 25 TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056
LDR		203.14	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
LDR		203.15	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000016
LDR		203.16	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		203.17	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
LDR	204	PIPE ASSEMBLY FROM TERM. 27(GEN) TO 67(LDR)												
LDR		204.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
LDR		204.2	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
LDR		204.3	FLANGE, 25NB	31500001239	04	6	6	12	No.	IS-2062 GR.B	1.02	12.240		0.000158
LDR		204.4	GASKET VITON	68X34X3		3	3	6	No.	HW59870	0.03	0.180		0.000002
LDR		204.5	SCREW HEX	A-8.8 M12X65		12	12	24	No.	IS:1364PART-2,1367PART-3	0.07	1.680		0.000022
LDR		204.6	NUT HEX	A-8.8 M12		12	12	24	No.	IS:1364PART-3,1367PART-3	0.02	0.440		0.000006
LDR		204.7	WASHER MCD-ST 13			24	24	48	No.	IS:2016-1967	0.01	0.300		0.000004
LDR		204.8	FLANGE, 50NB (FOR 27 TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056
LDR		204.9	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
LDR		204.10	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000016
LDR		204.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		204.12	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
LDR	205	PIPE ASSEMBLY FROM TERM.26(GEN) TO 66(LDR)												
LDR		205.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
LDR		205.2	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
LDR		205.3	FLANGE, 25NB	31500001239	04	6	6	12	No.	IS-2062 GR.B	1.02	12.240		0.000158
LDR		205.4	GASKET VITON	68X34X3		3	3	6	No.	HW59870	0.03	0.180		0.000002
LDR		205.5	SCREW HEX	A-8.8 M12X65		12	12	24	No.	IS:1364PART-2,1367PART-3	0.07	1.680		0.000022
LDR		205.6	NUT HEX	A-8.8 M12		12	12	24	No.	IS:1364PART-3,1367PART-3	0.02	0.440		0.000006
LDR		205.7	WASHER MCD-ST 13			24	24	48	No.	IS:2016-1967	0.01	0.300		0.000004
LDR		205.8	FLANGE, 50NB (FOR 26 TP GEN END)	31500001239	07	1	1	2	No.	IS-2062 GR.B	2.18	4.360		0.000056

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
LDR		205.9	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.080		0.000001
LDR		205.10	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367PART-3	0.15	1.200		0.000016
LDR		205.11	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
LDR		205.12	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
PWS	301	PIPE ASSEMBLY FROM TERM.195 (PW UNIT) TO TERM. 196 (PW PIPELINE)												
PWS		301.1	PIPE SS	168.3X3.4		41	41	82	Mtr.	ASTM A312 TP321	13.83	1134.060		0.051089
PWS		301.2	BEND 90°	168.3X3.4		6	6	12	No.	A403 WP321, ASME B16.9	5.50	66.000		0.002973
PWS		301.3	FLANGE, 150NB (PWU 195 END)	31531401089	01	1	1	2	No.	IS-2062 GR.B	7.59	15.180		0.000196
PWS		301.4	NECK (TERM.195 PW UNIT)	31531401088	01	1	1	2	No.	ASTM A182 F321	5.20	10.400		0.000469
PWS		301.5	GASKET VITON	218X159X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		301.6	SCREW HEX	A-8.8 M24X130		8	8	16	No.	IS:1364PART-2,1367PART-3	0.50	8.000		0.000360
PWS		301.7	NUT HEX	A-8.8 M24		8	8	16	No.	IS:1364PART-3,1367PART-3	0.06	1.000		0.000045
PWS		301.8	WASHER MCD-ST 25			16	16	32	No.	IS:2016-1967	0.02	0.540		0.000024
PWS		301.9	FLANGE, 150NB (TERM.196 PW PIPELINE)	31500001240	12	1	1	2	No.	ASTM A182 F321	6.00	12.000		0.000541
PWS		301.10	GASKET VITON	212X169X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		301.11	SCREW HEX	A-8.8 M20X90		8	8	16	No.	IS:1364PART-2,1367PART-3	0.30	4.800		0.000216
PWS		301.12	NUT HEX	A-8.8 M20		8	8	16	No.	IS:1364PART-3,1367PART-3	0.06	1.000		0.000045
PWS		301.13	WASHER MCD-ST 21			16	16	32	No.	IS:2016-1967	0.02	0.540		0.000024
PWS		301.14	FLANGE, 150NB	31500001240	12	10	10	20	No.	ASTM A182 F321	6.00	120.000		0.005406
PWS		301.15	GASKET VITON	212X169X3		5	5	10	No.	HW59870	0.06	0.600		0.000027
PWS		301.16	SCREW HEX	A-8.8 M20X90		80	80	160	No.	IS:1364PART-2,1367PART-3	0.30	48.000		0.002162
PWS		301.17	NUT HEX	A-8.8 M20		80	80	160	No.	IS:1364PART-3,1367PART-3	0.06	9.920		0.000447
PWS		301.18	WASHER MCD-ST 21			160	160	320	No.	IS:2016-1967	0.02	5.440		0.000245
PWS	302	BRANCH PIPE ASSEMBLY FROM TERM.205 (PW TANK PIPE LINE) TO 206 (PW UNIT)												
PWS		302.1	PIPE SS	168.3X3.4		60	60	120	Mtr.	ASTM A312 TP321	13.83	1659.600		0.074764
PWS		302.2	BEND 90°	168.3X3.4		10	10	20	No.	A403 WP321, ASME B16.9	5.50	110.000		0.004955
PWS		302.3	FLANGE, 150NB (PWU 206 END)	31531401089	01	1	1	2	No.	IS-2062 GR.B	7.59	15.180		0.000196
PWS		302.4	NECK, 150NB (TERM.206 PW UNIT)	31531401088	01	1	1	2	No.	ASTM A182 F321	5.20	10.400		0.000469
PWS		302.5	GASKET VITON	218X159X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		302.6	SCREW HEX	A-8.8 M24X130		8	8	16	No.	IS:1364PART-2,1367PART-3	0.50	8.000		0.000360
PWS		302.7	NUT HEX	A-8.8 M24		8	8	16	No.	IS:1364PART-3,1367PART-3	0.06	1.000		0.000045
PWS		302.8	WASHER MCD-ST 25			16	16	32	No.	IS:2016-1967	0.02	0.540		0.000024
PWS		302.9	FLANGE, 150NB (TERM.205 PW PIPELINE)	31500001240	12	1	1	2	No.	ASTM A182 F321	6.00	12.000		0.000541
PWS		302.10	GASKET VITON	212X169X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		302.11	SCREW HEX	A-8.8 M20X90		8	8	16	No.	IS:1364PART-2,1367PART-3	0.30	4.800		0.000216
PWS		302.12	NUT HEX	A-8.8 M20		8	8	16	No.	IS:1364PART-3,1367PART-3	0.06	1.000		0.000045
PWS		302.13	WASHER MCD-ST 21			16	16	32	No.	IS:2016-1967	0.02	0.540		0.000024
PWS		302.14	FLANGE, 150NB	31500001240	12	10	10	20	No.	ASTM A182 F321	6.00	120.000		0.005406
PWS		302.15	GASKET VITON	212X169X3		5	5	10	No.	HW59870	0.06	0.600		0.000027
PWS		302.16	SCREW HEX	A-8.8 M20X90		80	80	160	No.	IS:1364PART-2,1367PART-3	0.30	48.000		0.002162
PWS		302.17	NUT HEX	A-8.8 M20		80	80	160	No.	IS:1364PART-3,1367PART-3	0.06	9.920		0.000447
PWS		302.18	WASHER MCD-ST 21			160	160	320	No.	IS:2016-1967	0.02	5.440		0.000245
PWS	303	PIPE ASSEMBLY FROM TERM.732 (GEN PPG) TO 731 (PW UNIT)												
PWS		303.1	PIPE SS	13.7X1.65		1	1	2	Mtr.	ASME A312 TP321	0.49	0.980		0.000044
PWS		303.2	PIPE SS	21.3x2.11		100	100	200	Mtr.	ASME A312 TP321	1.27	254.000		0.011443
PWS	304	PIPE ASSEMBLY FROM TERM.581A,582A TO 582B,582B												
PWS		303.1	PIPE SS	13.7X1.65		1	1	2	Mtr.	ASME A312 TP321	0.49	0.980		0.000044
PWS		304.2	PIPE SS	21.3x2.11		50	50	100	Mtr.	ASME A312 TP321	1.27	127.000		0.005721
PWS	305	PIPE ASSEMBLY FROM TERM.579 (PW UNIT) TO 140 (PW TANK)												
PWS		305.1	PIPE	33.4X2.77		50	50	100	Mtr.	ASTM A312 TP321	2.09	209.000		0.009415
PWS		305.2	FLANGE, 25NB (TERM.597 PW UNIT)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
PWS		305.3	GASKET VITON	68X34X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		305.4	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.50	4.000		0.000180
PWS		305.5	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.06	0.500		0.000023
PWS		305.6	WASHER MCD-ST 17			8	8	16	No.	IS:2016-1967	0.02	0.280		0.000013
PWS		305.7	FLANGE, 25NB	31500001240	04	8	8	16	No.	ASTM A182 F321	1.02	16.320		0.000735

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
PWS		305.8	GASKET VITON	68X34X3		4	4	8	No.	HW59870	0.06	0.480		0.000022
PWS		305.9	SCREW HEX	A-8.8 M12X65		24	24	48	No.	IS:1364PART-2,1367PART-3	0.50	24.000		0.001081
PWS		305.10	NUT HEX	A-8.8 M12		24	24	48	No.	IS:1364PART-3,1367PART-3	0.06	2.980		0.000134
PWS		305.11	WASHER MCD-ST 17			48	48	96	No.	IS:2016-1967	0.02	1.640		0.000074
PWS		305.12	Flange (TERM.140 PW TANK)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
PWS		305.13	GASKET VITON	68X34X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		305.14	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.50	4.000		0.000180
PWS		305.15	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.06	0.500		0.000023
PWS		305.16	WASHER MCD-ST 17			8	8	16	No.	IS:2016-1967	0.02	0.280		0.000013
PWS	306	PIPE ASSEMBLY FROM TERM.149(PW TANK) TO 567 (PW UNIT)												
PWS		306.1	PIPE	33.4X2.77		50	50	100	Mtr.	ASTM A312 TP321	2.09	209.000		0.009415
PWS		306.2	FLANGE, 25NB (TERM.576 PW UNIT)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
PWS		306.3	GASKET VITON	68X34X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		306.4	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.50	4.000		0.000180
PWS		306.5	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.06	0.500		0.000023
PWS		306.6	WASHER MCD-ST 17			8	8	16	No.	IS:2016-1967	0.02	0.280		0.000013
PWS		306.7	FLANGE, 25NB	31500001240	04	8	8	16	No.	ASTM A182 F321	1.02	16.320		0.000735
PWS		306.8	GASKET VITON	68X34X3		4	4	8	No.	HW59870	0.06	0.480		0.000022
PWS		306.9	SCREW HEX	A-8.8 M12X65		24	24	48	No.	IS:1364PART-2,1367PART-3	0.50	24.000		0.001081
PWS		306.10	NUT HEX	A-8.8 M12		24	24	48	No.	IS:1364PART-3,1367PART-3	0.06	2.980		0.000134
PWS		306.11	WASHER MCD-ST 17			48	48	96	No.	IS:2016-1967	0.02	1.640		0.000074
PWS		306.12	FLANGE, 25NB (TERM.149 PW TANK)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
PWS		306.13	GASKET VITON	68X34X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		306.14	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.50	4.000		0.000180
PWS		306.15	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.06	0.500		0.000023
PWS		306.16	WASHER MCD-ST 17			8	8	16	No.	IS:2016-1967	0.02	0.280		0.000013
PWS	307	PIPE ASSEMBLY FROM TERM.585(PW TANK) TO WASTE GAS												
PWS		307.1	PIPE	33.4X2.77		50	50	100	Mtr.	ASTM A312 TP321	2.09	209.000		0.009415
PWS		307.2	FLANGE, 25NB (TERM.585PW UNIT)	31500001240	04	1	1	2	No.	ASTM A182 F321	1.02	2.040		0.000092
PWS		307.3	GASKET VITON	68X34X3		1	1	2	No.	HW59870	0.06	0.120		0.000005
PWS		307.4	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.50	4.000		0.000180
PWS		307.5	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-3,1367PART-3	0.06	0.500		0.000023
PWS		307.6	WASHER MCD-ST 17			8	8	16	No.	IS:2016-1967	0.02	0.280		0.000013
PWS		307.7	FLANGE, 25NB	31500001240	04	8	8	16	No.	ASTM A182 F321	1.02	16.320		0.000735
PWS		307.8	GASKET VITON	68X34X3		4	4	8	No.	HW59870	0.06	0.480		0.000022
PWS		307.9	SCREW HEX	A-8.8 M12X65		24	24	48	No.	IS:1364PART-2,1367PART-3	0.50	24.000		0.001081
PWS		307.10	NUT HEX	A-8.8 M12		24	24	48	No.	IS:1364PART-3,1367PART-3	0.06	2.980		0.000134
PWS		307.11	WASHER MCD-ST 17			48	48	96	No.	IS:2016-1967	0.02	1.640		0.000074
PWS	308	PIPE ASSEMBLY FROM PW COOLER INLET TO TERM 208/209												
PWS		308.1	PIPE	168.3X7.11		30	30	60	Mtr.	ASTM A106 GR.B	28.23	1693.800		0.021908
PWS		305.4	REDUCER	168.3X7.11X141.3X6.55		4	4	8	No.	A234 WPB, ASME B16.9	4.19	33.520		0.000434
PWS		308.2	TEE	168.3X168.3X7.11		2	2	4	No.	A234 WPB, ASME B16.9	13.50	54.000		0.000698
PWS		308.3	BEND 90°	168.3X7.11		10	10	20	No.	A234 WPB, ASME B16.9	9.98	199.600		0.002582
PWS		308.4	CONNECTION FOR TE/TG	41500001118	00	6	6	12	No.	IS-2062 GR.B	0.50	6.000		0.000078
PWS		308.5	THERMOWELL FOR TG	41531401027	00	6	6	12	No.	ASTM A182 F321	0.40	4.800		0.000216
PWS		308.6	CONNECTION, 8NB FOR PG/PT	31500001190	06	4	4	8	No.	IS-2062 GR.B	0.06	0.480		0.000006
PWS		308.7	CONNECTION, 15NB	31500001190	02	4	4	8	No.	IS-2062 GR.B	0.12	0.920		0.000012
PWS		308.8	FLANGE, 125NB (CLR TP END)	31500001239	18	4	4	8	No.	IS-2062 GR.B	4.99	39.920		0.000516
PWS		308.9	GASKET VITON	188X140X3		4	4	8	No.	HW59870	0.08	0.640		0.000008
PWS		308.10	SCREW HEX	A-8.8 M24X100		32	32	64	No.	IS:1364PART-2,1367PART-3	0.30	19.200		0.000248
PWS		308.11	NUT HEX	A-8.8 M24		32	32	64	No.	IS:1364PART-3,1367PART-3	0.06	3.960		0.000051
PWS		308.12	WASHER MCD-ST 25			64	64	128	No.	IS:2016-1967	0.02	2.180		0.000028
PWS		308.13	FLANGE, 150NB (VALVE FLANGES)	31500001239	12	8	8	16	No.	IS-2062 GR.B	6.00	96.000		0.001242
PWS		308.14	GASKET VITON	212X169X3		8	8	16	No.	HW59870	0.08	1.280		0.000017
PWS		308.15	SCREW HEX	A-8.8 M20X70		64	64	128	No.	IS:1364PART-2,1367PART-3	0.30	38.400		0.000497
PWS		308.16	NUT HEX	A-8.8 M20		64	64	128	No.	IS:1364PART-3,1367PART-3	0.06	7.940		0.000103
PWS		308.17	WASHER MCD-ST 21			128	128	256	No.	IS:2016-1967	0.02	4.360		0.000056
PWS		308.13	FLANGE, 150NB (PEM TERM)	31500001239	12	4	4	8	No.	IS-2062 GR.B	6.00	48.000		0.000621
PWS		308.14	GASKET VITON	212X169X3		2	2	4	No.	HW59870	0.08	0.320		0.000004

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
PWS		308.15	SCREW HEX	A-8.8 M20X90		16	16	32	No.	IS:1364PART-2,1367PART-3	0.30	9.600		0.000124
PWS		308.16	NUT HEX	A-8.8 M20		16	16	32	No.	IS:1364PART-3,1367PART-3	0.06	1.980		0.000026
PWS		308.17	WASHER MCD-ST 21			32	32	64	No.	IS:2016-1967	0.02	1.080		0.000014
PWS		later	CONNECTION, 15NB	31500001190	02	4	4	8	No.	IS-2062 GR.B	0.12	0.920		0.000012
PWS		later	PIPE	141.3X6.55		1	1	2	Mtr.	ASTM A106 GR.B	21.76	43.520		0.000563
PWS	309	PIPE ASSEMBLY FROM ION EXCHANGER TO PW UNIT INLET												
PWS		309.1	PIPE	33.4X2.77		10	10	20	Mtr.	ASTM A312 TP321	2.09	41.800		0.001883
PWS		309.2	FLANGE, 25NB (VALVE FLANGE)	31500001240	04	6	6	12	No.	ASTM A182 F321	1.02	12.240		0.000551
PWS		309.3	GASKET VITON	68X34X3		4	4	8	No.	HW59870	0.06	0.480		0.000022
PWS		309.4	SCREW HEX	A-8.8 M12X65		48	48	96	No.	IS:1364PART-2,1367PART-3	0.07	6.720		0.000303
PWS		309.5	NUT HEX	A-8.8 M12		48	48	96	No.	IS:1364PART-3,1367PART-3	0.06	5.960		0.000268
PWS		309.6	WASHER MCD-ST 13			96	96	192	No.	IS:2016-1967	0.02	3.260		0.000147
WGS	500	FROM TERM. 105(GU) TO ATM												
WGS		500.1	PIPE	168.3X7.11		55	55	110	Mtr.	ASME A106 GR.B	28.23	3105.300		0.040164
WGS		500.2	BEND 90°	168.3X7.11		5	5	10	No.	A234 WPB, ASME B16.9	9.98	99.800		0.001291
WGS		~~500.3~~	~~Deleted~~	~~Deleted~~										
WGS	501	FROM TERM. (CO2 DIST.) TO WGS												
WGS		501.1	PIPE	60.3X3.91		20	20	40	Mtr.	ASME A106 GR.B	5.44	217.600		0.002814
WGS		501.2	BEND 90°	60.3X3.91		4	4	8	No.	A234 WPB, ASME B16.9	0.65	5.200		0.000067
WGS		501.3	TEE UNEQUAL	168.3X7.11X114.3X6.02		1	1	2	No.	A234 WPB, ASME B16.9	13.50	27.000		0.000349
WGS		501.4	REDUCER	114.3X6.02X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.55	3.100		0.000040
WGS		501.5	FLANGE, 50NB (CO2 DIST END)	31500001001	04	1	1	2	No.	IS-2062 GR.B	2.50	5.000		0.000065
WGS		501.6	GASKET VITON	102X60X3		1	1	2	No.	HW59870	0.04	0.070		0.000001
WGS		501.7	SCREW HEX	A-8.8 M16X75		4	4	8	No.	IS:1364PART-2,1367	0.15	1.200		0.000016
WGS		501.8	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-2,1367	0.04	0.280		0.000004
WGS		501.9	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
WGS		501.10	FLANGE, 50NB	31500001001	04	6	6	12	No.	IS-2062 GR.B	2.50	30.000		0.000388
WGS		501.11	GASKET VITON	102X60X3		2	2	4	No.	HW59870	0.02	0.070		0.000001
WGS		501.12	SCREW HEX	A-8.8 M16X75		8	8	16	No.	IS:1364PART-2,1367	0.15	2.400		0.000031
WGS		501.13	NUT HEX	A-8.8 M16		8	8	16	No.	IS:1364PART-2,1367	0.03	0.540		0.000007
WGS		501.14	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
WGS		501.15	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
WGS		501.16	REDUCER	60.3X3.91X48.3x3.68		1	1	2	No.	A234 WPB, ASME B16.9	0.44	0.880		0.000011
WGS	502	FROM TERM. GAC 315 A/B TO WGS												
WGS		502.1	PIPE	33.4X3.38		50	50	100	Mtr.	ASME A106 GR.B	2.50	250.000		0.003233
WGS	315	502.2	TEE	33.4X33.4X3.38		2	2	4	No.	A234 WPB, ASME B16.9	0.30	1.200		0.000016
WGS		502.3	~~Deleted~~	~~Deleted~~										
WGS		502.4	REDUCER	33.4X3.38X13.7X2.24		1	1	2	No.	A234 WPB, ASME B16.9	0.20	0.400		0.000005
WGS		502.5	BEND 90°	60.3x3.91		5	5	10	No.	A234 WPB, ASME B16.9	0.65	6.500		0.000084
WGS	503	FROM TERM. 296 (SOST VENT) TO VAP. EXHUASTER												
WGS		503.1	PIPE CS	73x5.16		20	20	40	Mtr.	ASTM A106 GR.B	8.62	344.800		0.004460
WGS		503.2	BEND 90°	73x5.16		8	8	16	No.	A234 WPB, ASME B16.9	1.25	20.000		0.000259
WGS		503.3	REDUCER	73X5.16X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	0.83	1.660		0.000021
WGS		503.4	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
WGS		503.5	UNEQUAL TEE	88.9X5.49X88.9X5.49X73X5.16		1	1	2	No.	A234 WPB, ASME B16.9	3.07	6.140		0.000079
WGS		503.6	FLANGE,65NB (FOR 296 SOST)	31500001239	08	1	1	2	No.	IS-2062 GR.B	2.67	5.340		0.000069
WGS		503.7	GASKET VITON	122X76X3		1	1	2	No.	HW59870	0.04	0.084		0.000001
WGS		503.8	SCREW HEX	A-8.8 M16X65		4	4	8	No.	IS:1364PART-2,1367PART-3	0.13	1.040		0.000013
WGS		503.9	NUT HEX	A-8.8 M16		4	4	8	No.	IS:1364PART-3,1367PART-3	0.04	0.280		0.000004
WGS		503.10	WASHER MCD-ST17.0			8	8	16	No.	IS:2016-1967	0.01	0.180		0.000002
WGS		503.11	FLANGE, 65NB	31500001239	08	6	6	12	No.	IS-2062 GR.B	2.67	32.040		0.000414
WGS		503.12	GASKET VITON	122X76X3		3	3	6	No.	HW59870	0.04	0.252		0.000003
WGS		503.13	SCREW HEX	A-8.8 M16X75		18	18	36	No.	IS:1364PART-2,1367PART-3	0.15	5.400		0.000070
WGS		503.14	NUT HEX	A-8.8 M16		18	18	36	No.	IS:1364PART-3,1367PART-3	0.03	1.220		0.000016
WGS		503.15	WASHER MCD-ST17.0			36	36	72	No.	IS:2016-1967	0.01	0.800		0.000010
WGS		503.16	REDUCER	88.9X5.49X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.02	2.040		0.000026
WGS		503.17	REDUCER	33.4x3.38X26.7x2.87		1	1	2	No.	A234 WPB, ASME B16.9	0.20	0.400		0.000005
WGS	504	FROM TERM. H2 DIST. TO WGS												
WGS		504.1	PIPE	21.3X2.77		25	25	50	Mtr.	ASME A106 GR.B	1.27	63.500		0.000821

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
WGS		504.2	REDUCER	21.3X2.77X13.7X2.24		1	1	2	No.	A234 WPB, ASME B16.9	0.10	0.200		0.000003
WGS	505	FROM TERM. 9A/9B TO VAPOUR EXHAUSTER (COMMON HEADER 80NB) UPTO 100NB COMMON HEADER												
WGS		505.1	PIPE	88.9X5.49		50	50	100	Mtr.	ASME A106 GR.B	11.29	1129.000		0.014602
WGS		505.2	BEND 90º	88.9X5.49		20	20	40	No.	A234 WPB, ASME B16.9	1.85	74.000		0.000957
WGS		505.3	TEE	88.9X88.9X5.49		6	6	12	No.	A234 WPB, ASME B16.9	3.07	36.840		0.000476
WGS		505.4	FLANGE, 80NB	31500001239	09	28	28	56	No.	IS-2062 GR.B, ASME B16.5	3.28	183.680		0.002376
WGS		505.5	GASKET VITON	138X89X3		14	14	28	No.	HW59870	0.05	1.400		0.000018
WGS		505.6	SCREW HEX	A-8.8 M16X80		112	112	224	No.	IS:1364PART-2,1367	0.12	27.780		0.000359
WGS		505.7	NUT HEX	A-8.8 M16		112	112	224	No.	IS:1364PART-2,1367	0.03	7.620		0.000099
WGS		505.8	WASHER MCD-ST17.0			224	224	448	No.	IS:2016-1967	0.01	4.920		0.000064
WGS		505.9	FLANGE, 80NB (VAP EXHST END)	41500001011	00	4	4	8	No.	IS-2062 GR.B	1.55	12.384		0.000160
WGS		505.10	GASKET VITON	90X108X3		4	4	8	No.	HW59870	0.01	0.070		0.000001
WGS		505.11	SCREW HEX	A-8.8 M8X70		32	32	64	No.	IS:1364PART-2,1367	0.06	3.720		0.000048
WGS		505.12	NUT HEX	A-8.8 M8		32	32	64	No.	IS:1364PART-2,1367	0.02	1.160		0.000015
WGS		505.13	WASHER MCD-ST9.0			64	64	128	No.	IS:2016-1967	0.01	0.800		0.000010
WGS		505.14	FLANGE, 80NB (9A/B GEN END)	31500001239	09	2	2	4	No.	IS-2062 GR.B	3.28	13.120		0.000170
WGS		505.15	GASKET VITON	138X89X3		2	2	4	No.	HW59870	0.05	0.200		0.000003
WGS		505.16	SCREW HEX	A-8.8 M16X80		16	16	32	No.	IS:1364PART-2,1367	0.12	3.960		0.000051
WGS		505.17	NUT HEX	A-8.8 M16		16	16	32	No.	IS:1364PART-2,1367	0.03	1.080		0.000014
WGS		505.18	WASHER MCD-ST17.0			32	32	64	No.	IS:2016-1967	0.01	0.700		0.000009
WGS		505.19	FLANGE, 80NB (DIAPH.VALVE END CONN)	31500001239	09	4	4	8	No.	IS-2062 GR.B	3.28	26.240		0.000339
WGS		505.20	GASKET VITON	138X89X3		4	4	8	No.	HW59870	0.01	0.070		0.000001
WGS		505.21	SCREW HEX	A-8.8 M8X80		32	32	64	No.	IS:1364PART-2,1367	0.06	3.720		0.000048
WGS		505.22	NUT HEX	A-8.8 M8		32	32	64	No.	IS:1364PART-2,1367	0.02	1.160		0.000015
WGS		505.23	WASHER MCD-ST9.0			64	64	128	No.	IS:2016-1967	0.01	0.800		0.000010
WGS		505.24	SCREW HEX FOR NRV FLANGE	A-8.8 M16X100		48	48	96	No.	IS:1364 PART-2,1367	0.15	14.400		0.000186
WGS		505.25	NUT HEX	A-8.8 M16		48	48	96	No.	IS:1364PART-2,1367	0.03	3.260		0.000042
WGS		505.26	WASHER MCD-ST17.0			96	96	192	No.	IS:2016-1967	0.01	2.120		0.000027
WGS		505.27	FLANGE, 80NB (BLIND)	AA7244703		2	2	4	No.	IS-2062 GR.B	4.77	19.080		0.000247
WGS		505.28	CONNECTION, 8NB	31500001190	06	3	3	6	No.	IS-2062 GR.B	0.06	0.360		0.000005
WGS		505.29	CONNECTION, 20NB	31500001190	03	1	1	2	No.	IS-2062 GR.B	0.14	0.284		0.000004
WGS	506	FROM COMMON HEADER 100NB TO ATM												
WGS		506.1	PIPE	114.3X6.02		80	80	160	Mtr.	ASTM A106 GR.B	16.08	2572.800		0.033277
WGS		506.2	BEND 90º	114.3X6.02		15	15	30	No.	A234 WPB, ASME B16.9	3.83	114.900		0.001486
WGS		506.3	TEE	114.3X6.02X88.9X5.49		2	2	4	No.	A234 WPB B16.9	5.76	23.040		0.000298
WGS		506.4	FLANGE, SORF, 100NB	31500001239	10	32	32	64	No.	IS-2062 GR.B, ASME B16.5	3.62	231.680		0.002997
WGS		506.5	GASKET VITON	158X115X3		16	16	32	No.	HW59870	0.06	1.920		0.000025
WGS		506.6	SCREW HEX	A-8.8 M16X80		128	128	256	No.	IS:1364PART-2,1367	0.12	31.740		0.000411
WGS		506.7	NUT HEX	A-8.8 M16		128	128	256	No.	IS:1364PART-2,1367	0.03	8.700		0.000113
WGS		506.8	WASHER MCD-ST17.0			256	256	512	No.	IS:2016-1967	0.01	5.640		0.000073
WGS		506.9	FLANGE, 100NB (BLIND)	AA7244703		1	1	2	No.	IS-2062 GR.B	5.65	11.300		0.000146
WGS		506.10	CONNECTION, 20NB	31500001190	03	1	1	2	No.	IS-2062 GR.B	0.14	0.284		0.000004
WGS		506.11	TEE	114.3X6.02X114.3X6.02		1	1	2	No.	A234 WPB B16.9	5.76	11.520		0.000149
WGS		506.12	REDUCER	114.3X6.02X88.9X5.49		1	1	2	No.	A234 WPB B16.9	1.71	3.420		0.000044
WGS	507	PIPE FITTINGS IN COMMON HEADER 150NB												
WGS		507.1	CONNECTION, 15NB	31500001190	02	1	1	2	No.	IS-2062 GR.B	0.10	0.200		0.000003
WGS		507.2	FLANGE, 25NB (FOR SIGHT GLASS)	31500001239	04	1	1	2	No.	IS-2062 GR.B	1.02	2.040		0.000026
WGS		507.3	GASKET VITON	68X39.5X3		1	1	2	No.	HW59870	0.03	0.060		0.000001
WGS		507.4	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367	0.07	0.560		0.000007
WGS		507.5	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-2,1367	0.02	0.140		0.000002
WGS		507.6	WASHER MCD-ST13.0			8	8	16	No.	IS:2016-1967	0.01	0.100		0.000001
WGS		507.7	FLANGE, 25NB (FOR VALVE)	31500001239	04	1	1	2	No.	IS-2062 GR.B	1.02	2.040		0.000026
WGS		507.8	GASKET VITON	68X39.5X3		1	1	2	No.	HW59870	0.03	0.060		0.000001
WGS		507.9	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367	0.07	0.560		0.000007
WGS		507.10	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-2,1367	0.02	0.140		0.000002
WGS		507.11	WASHER MCD-ST13.0			8	8	16	No.	IS:2016-1967	0.01	0.100		0.000001
WGS		507.12	CONNECTION, 50NB	31500001190	01	1	1	2	No.	IS-2062 GR.B	0.56	1.120		0.000014
WGS	508	PIPE FITTINGS IN COMMON HEAER 25NB												

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
WGS		508.1	CONNECTION, 20NB	31500001190	03	2	2	4	No.	IS-2062 GR.B	0.14	0.568		0.000007
WGS		508.2	FLANGE, 25NB (FOR SIGHT GLASS)	31500001239	04	1	1	2	No.	IS-2062 GR.B	1.02	2.040		0.000026
WGS		508.3	GASKET VITON	68X39.5X3		1	1	2	No.	HW59870	0.03	0.060		0.000001
WGS		508.4	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367	0.07	0.560		0.000007
WGS		508.5	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-2,1367	0.02	0.140		0.000002
WGS		508.6	WASHER MCD-ST13.0			8	8	16	No.	IS:2016-1967	0.01	0.100		0.000001
WGS		508.7	FLANGE, 25NB (FOR VALVE)	31500001239	04	1	1	2	No.	IS-2062 GR.B	1.02	2.040		0.000026
WGS		508.8	GASKET VITON	68X39.5X3		1	1	2	No.	HW59870	0.03	0.060		0.000001
WGS		508.9	SCREW HEX	A-8.8 M12X65		4	4	8	No.	IS:1364PART-2,1367	0.07	0.560		0.000007
WGS		508.10	NUT HEX	A-8.8 M12		4	4	8	No.	IS:1364PART-2,1367	0.02	0.140		0.000002
WGS		508.11	WASHER MCD-ST13.0			8	8	16	No.	IS:2016-1967	0.01	0.100		0.000001
WGS	410	FROM TERM GAS DRIER VENT LINE TO ATM												
WGS	`	410.10	PIPE	60.3X3.91		60	60	120	Mtr.	ASTM SA106 GR.B	5.44	652.800		0.008443
WGS		410.20	BEND LR 90°	60.3X3.91		10	10	20	No.	ASTM A234 WPB,ASME B16.9	0.65	13.000		0.000168
WGS		410.30	TEE	60.3x60.3x3.91		1	1	2	No.	ASTM A234 WPB,ASME B16.9	1.09	2.180		0.000028
WGS		410.40	FLANGE, 50NB(FOR GAS DRIER)	31500001239	07	2	2	4	No.	IS:2062 E250 BR	2.18	8.720		0.000113
WGS		410.50	GASKET VITON	102X60X3		2	2	4	No.	HW59870	0.04	0.140		0.000002
WGS		410.60	SCREW HEX	A-8.8 M16X75		8	8	16	No.	IS:1364PART-2,1367PART-3	0.15	2.400		0.000031
WGS		410.70	NUT HEX	A-8.8 M16		8	8	16	No.	IS:1364PART-3,1367PART-3	0.03	0.544		0.000007
WGS		410.80	WASHER MCD-ST17.0			16	16	32	No.	IS:2016-1967, IS:2062 E250 BR	0.01	0.352		0.000005
WGS		410.81	CONNECTION, 8NB	31500001190	06	1	1	2	No.	IS-2062 GR.B	0.06	0.120		0.000002
WGS		410.82	PIPE	13.7X2.24		20	20	40	Mtr.	ASTM SA106 GR.B	0.63	25.200		0.000326
WFS	600	FROM WASTE GAS SYSTEM 40/ 42 TO COMMON HEADER OF 50 NB												
WFS		600.1	PIPE	26.7X2.87		20	20	40	Mtr.	ASME A106 GR.B	1.69	67.600		0.000874
WFS		600.2	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS	601	FROM GIS 74 (LDR) TO COMMON HEADER OF 50 NB												
WFS		601.1	PIPE	33.4X3.38		20	20	40	Mtr.	ASME A106 GR.B	2.50	100.000		0.001293
WFS		601.2	STUB, 25NB	31500001190	08	1	1	2	No.	IS-2062 Gr.B	0.14	0.280		0.000004
WFS	602	FROM U-LOOP SEAL OIL SYS. 297 TO COMMON HEADER OF 50 NB												
WFS		602.1	PIPE	33.4X3.38		20	20	40	Mtr.	ASME A106 GR.B	2.50	100.000		0.001293
WFS		602.2	STUB, 20NB	31500001190	03	1	1	2	No.	IS-2062 Gr.B	0.14	0.284		0.000004
WFS	603	FROM 920 (SOUH) TO COMMON HEADER OF 50 NB												
WFS		603.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
WFS		603.2	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS	604	FROM 930 (SOUA) TO COMMON HEADER OF 50 NB												
WFS		604.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
WFS		604.2	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS	605	FROM 950 (SOUA) TO COMMON HEADER OF 50 NB												
WFS		605.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
WFS		605.2	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS	606	FROM 114 (GS)TO COMMON HEADER OF 50 NB												
WFS		606.1	PIPE	21.3X2.77		20	20	40	Mtr.	ASME A106 GR.B	1.27	50.800		0.000657
WFS		606.2	STUB, 15NB	31500001190	02	2	2	4	No.	IS-2062 Gr.B	0.12	0.460		0.000006
WFS	607	FROM 214 & 390 (PWS) TO COMMON HEADER OF 50 NB												
WFS		607.1	PIPE	33.4X3.38		25	25	50	Mtr.	ASME A106 GR.B	2.50	125.000		0.001617
WFS		607.2	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS	608	FROM 585 (PWT) TO DRAIN OIL COLLECTOR												
WFS		608.1	PIPE	33.4X3.38		30	30	60	Mtr.	ASME A106 GR.B	2.50	150.000		0.001940
WFS		608.2	PIPE	114.3X6.02		1	1	2	Mtr.	ASME A106 GR.B	16.08	32.160		0.000416
WFS		608.3	REDUCER	114.3X6.02X60.3X3.91		1	1	2	No.	A234 WPB, ASME B16.9	1.55	3.100		0.000040
WFS		608.4	REDUCER	60.3X3.91X33.4X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.40	0.800		0.000010
WFS		608.5	STUB, 25NB	31500001190	08	2	2	4	No.	IS-2062 Gr.B	0.14	0.560		0.000007
WFS		608.6	TEE	33.7X33.7X3.38		1	1	2	No.	A234 WPB, ASME B16.9	0.30	0.600		0.000008
WFS	609	COMMON HEADER OF 50 NB TO DRAIN OIL COLLECTOR												
WFS		609.1	PIPE	60.3X3.91		20	20	40	Mtr.	ASME A106 GR.B	5.44	217.600		0.002814
WFS		609.2	BEND 90°	60.3X3.91		5	5	10	No.	A234 WPB, ASME B16.9	0.65	6.500		0.000084
WFS	610	FROM DRAIN OIL COLLECTOR TO WASTE DISPOSAL PIT												
WFS		610.1	PIPE	33.4X3.38		20	20	40	Mtr.	ASME A106 GR.B	2.50	100.000		0.001293
H2C	~~4~~	~~1.1~~	~~Delete~~	~~Delete~~										

ANNEXURE-A (Rev-02) :: BOQ CUM PRICE BID FORMAT

NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

PGMA :: 38601

Generator Integral Piping (GIP) Package (Unit-1 & 2)

SYSTEM	ITEM NO.	PART NO.	DESCRIPTION OF SUB-ASSEMBLY	DRG.NO./SIZE	DRG. VAR.	UNIT-1 QTY	UNIT-2 QTY	TOTAL QTY	UOM	MAT. SPEC./ DIMENSION STD.	UNIT WEIGHT (Kg)	TOTAL WEIGHT (Kg)	DU NO. (LATER)	PRICE WEIGHTAGE FACTOR
H2C	~~2~~	~~2.1~~	~~Delete~~	~~Delete~~										
H2C	3	3.1	PIPE	168.3X7.11		200	200	400	Mtr.	ASTM SA106 GR.B	28.23	11292.000		0.146050
H2C		3.2	PIPE	33.4X3.38		85	85	170	Mtr.	ASTM SA106 GR.B	2.50	425.000		0.005497
H2C		3.3	PIPE	21.3X2.77		100	100	200	Mtr.	ASTM SA106 GR.B	1.27	254.000		0.003285
H2C		3.4	PIPE	17.1X2.31		50	50	100	Mtr.	ASTM SA106 GR.B	0.84	84.000		0.001086
H2C		3.5	PIPE	13.7X2.24		20	20	40	Mtr.	ASTM SA106 GR.B	0.63	25.200		0.000326
H2C		3.6	BEND LR 45 °	168.3X7.11		16	16	32	No.	A234 WPB, ASME B16.9	6.65	212.800		0.002752
H2C		3.7	BEND LR 90º	168.3X7.11		80	80	160	No.	A234 WPB, ASME B16.9	9.98	1596.800		0.020653
H2C		3.8	CONNECTION	41500001118	00	16	16	32	No.	IS:2062 E250 BR	0.50	16.000		0.000207
H2C		3.9	CONNECTION 20 NB	41500001182	00	8	8	16	No.	IS:2062 E250 BR	0.50	8.000		0.000103
H2C		3.10	CONNECTION 15 NB	31500001190	02	8	8	16	No.	IS:2062 E250 BR	0.12	1.840		0.000024
H2C		3.11	THERMOWELL	41531401027		16	16	32	No.	ASTM A182 F321	0.40	12.800		0.000577
H2C		3.12	FLANGE NB150	31500001239	12	80	80	160	No.	IS:2062 E250 BR	6.00	960.000		0.012417
H2C		3.13	GASKET VITON	212X169X3TK		40	40	80	No.	HW59870	0.08	6.400		0.000083
H2C		3.14	SCRU HEX	A-8.8 M20X90		320	320	640	No.	IS:1364PART-2,1367	0.30	192.000		0.002483
H2C		3.15	NUT HEX	A-8.8 M20		320	320	640	No.	IS:1364PART-2,1367	0.06	39.680		0.000513
H2C		3.16	WASHER MCD-ST 21			640	640	1280	No.	IS:2016-1967	0.02	21.760		0.000281
H2C		3.17	FLANGE NB150 (C.F. OF VALVES)	31500001239	12	16	16	32	No.	IS:2062 E250 BR	6.00	192.000		0.002483
H2C		3.18	GASKET VITON	212X170X3TK		16	16	32	No.	HW59870	0.08	2.560		0.000033
H2C		3.19	SCREW HEX	A-8.8 M20X90		128	128	256	No.	IS:1364PART-2,1367	0.30	76.800		0.000993
H2C		3.20	NUT HEX	A-8.8 M20		128	128	256	No.	IS:1364PART-2,1367	0.06	15.872		0.000205
H2C		3.21	WASHER MCD-ST 21			256	256	512	No.	IS:2016-1967	0.02	8.704		0.000113
														1.000000

Lumpsum Price of GIP Package (Unit-1 & Unit-2) in INR (to be quoted by Vendor), A = _____

"Bidder's Confirmation"

1 **Bidder to Quote Lumpsum Price for Generator Integral Piping Package for the complete BOQ as listed above.**

2 **Bidder Evaluation shall be on overall L1 basis.**

3 Bidders to quote as per the Pre-Qualification Criteria provided in the NIT.

4 **Final ordering quantity may vary upto +/- 25% of the finalised package value, which shall be informed while placing purchase order.**

5 **The Unit Weights furnished above, shall be binding on the successful bidder. Any deviations/observations on unit weight of the above mentioned items to be brought up during Pre bid Queries only.**

6 **Unit Price (Per kg) for the individual line items shall be derived by multiplying the lumpsum price quoted/price finalized after RA, with the Price Weightage Factor and dividing the resultant by the total weight of the particular item.**

7 **Unit Price (Per kg) thus arrived, will be used for calculating any additional weight requirement during detail engineering due to increase in Length/Qty/Thickness etc.**

8 No Observations / Objections shall be entertained after the Techno-Commercial Bid is opened.

9 Bidder to indicate "Quoted" in the column "Bidder's Confirmation" as a confirmation of their bid to the respective item.

10 The Total Lump price quoted shall be INCLUSIVE of GST, Freight, Packing & Forwarding and Testing Charges.

11 The Total Lump price quoted shall be EXCLUSIVE of Third party inspection (TPI) & Insurance Charges.

12 Material for Unit-1 and Unit-2 shall be packed separately in line with the packing instructions provided in the NIT.

13 a) **SOS**: Seal Oil System b) **PWS**: Primary Water System c) **WGS**: Waste Gas System d) **WFS**: Waste Fluid System e) **H2C**: Hydrogen Cooler System f) **LDR**: Liquid Detector Rack

LIST OF APPROVED SUB-VENDORS
GENERATOR INTEGRAL PIPING PACKAGE

ANNEXURE-B (Rev-01) TO PEMC- 07792
PROJECT: NTPC SINGRAULI SUPER THERMAL POWER PROJECT STAGE-III (2 X 800 MW)

The following are the list of **APPROVED MAKES** for each category of items. **No other makes are allowed.** Vendor to quote from the following makes only.

Sr No	Item Description	QP Inspection Category	QP No	QP submission SCH	QP approval SCH	Proposed Sub Supplier	Country	SS Approval_Status	SS Detail Sub.SCH	SS Approval SCH	Remark	Package Applicable	Provenness Clause (Refer Note-1)
52	Pipe SS & CS	I				Remi	Tarapur,India	A			SS		
						Apex	Alwar	A			SS (up to 150NB)		
						Ratnamani	Ahmedabad	A			SS		
						ISMT	India	A			CS (up to 400 NB)		
						Maharashtra Seamless Ltd.	Maharashtra	A			CS (up to 400 NB)		
						Tube Products Incorporate	Ahmedabad	A					
						TK Corporation	S Korea	A					
						Dee development	Palwal	A					
						Jindal Saw	India	A			CS (up to 400 NB)		
						Tata	India	A			ERW		
						Surya	India	A			ERW		
						JINDAL PIPES LTD	India	A			ERW		
						WELSPUN	India	A			ERW		
						Lalit Pipes & pipes Ltd.,	Thane	A			EFW Pipes		
						Ratnamni Metals and Tubes Ltd.,	Gandhinagar	A			EFW Pipes		

Approved Sub-vendor	Item Category
GOODRICH GASKET PVT. LTD.	GASKETS
I G P ENGINEERS PVT LIMITED,	GASKETS
BOMBAY CHEMICAL EQUIPMENTS	GASKETS
TEEKAY FLOWFLEX PVT. LTD.	GASKETS
UNI KLINGER LTD.	GASKETS
JAMES WALKER INMARCO INDS PVT LTD	GASKETS
NEOSEAL ENGINEERING Pvt Ltd	GASKETS
STARFLEX SEALING INDIA PVT. LTD.	GASKETS
JYOTHI INDUSTRIES,	GASKETS
TESHI ENGINEERS AND SALES PROMOTERS	FLANGES
Jindal forging Pvt Ltd	FLANGES
Utsah Engineering Pvt. Ltd.	FLANGES
C.D.ENGINEERING CO.	FLANGES
CHW FORGE PRIVATE LIMITED	FLANGES
KISAAN ENGINEERIN WORKS	FLANGES
SUPER FORGE PVT LTD	FLANGES
MAHESH INDUSTRIES	FLANGES
NAV DURGA FORGING AND FITTINGS	FLANGES
TRUE FORGE PVT.LTD.,	FLANGES
MECH WELL FITTINGS PVT LTD	FLANGES
RANCO INDUSTRIES Pvt. Ltd	FLANGES
PIPEFIT ENGINEERS PVT. LTD.	FLANGES
PETRO CHEM INDUSTRIES	FLANGES
METAL FORGINGS P. LTD.	FLANGES
PRESHZINGER ENGINEERING	FLANGES
UNIQUE ENGINEERING ENTPS. PVT. LTD.	FLANGES
TESHI ENGINEERS AND SALES PROMOTERS	BUTT WELDED PIPE FITTINGS
Jindal forging Pvt Ltd	BUTT WELDED PIPE FITTINGS
ENGINEERING SERVICE ENTERPRISE	BUTT WELDED PIPE FITTINGS

N L HAZRA AND SON	BUTT WELDED PIPE FITTINGS
M.S. FITTINGS MANUFACTURING CO. PVT	BUTT WELDED PIPE FITTINGS
KISAAN TECHNO FORGE	BUTT WELDED PIPE FITTINGS
REAL FORGE & FITTING	BUTT WELDED PIPE FITTINGS
SUPER FORGE PVT LTD	BUTT WELDED PIPE FITTINGS
NAV DURGA FORGING AND FITTINGS	BUTT WELDED PIPE FITTINGS
TUBE TURN (INDIA) P. LTD.	BUTT WELDED PIPE FITTINGS
Arshya Engineers & Fabrications	BUTT WELDED PIPE FITTINGS
K. S. PIPE FITTINGS PVT. LTD.	BUTT WELDED PIPE FITTINGS
PRESHZINGER ENGINEERING	BUTT WELDED PIPE FITTINGS
TRIOMECH ENGINEERING PVT. LTD.	BUTT WELDED PIPE FITTINGS
WEIFANG HUODA PIPE FITTINGS	BUTT WELDED PIPE FITTINGS
GUJARAT INFRAPIPES PVT.LTD.,	BUTT WELDED PIPE FITTINGS
SAWAN ENGINEERS PVT. LTD.	BUTT WELDED PIPE FITTINGS
TOPAZ PIPING INDUSTRIES	BUTT WELDED PIPE FITTINGS
PIPEFIT ENGINEERS PVT. LTD.	BUTT WELDED PIPE FITTINGS
MECH WELL FITTINGS PVT LTD	BUTT WELDED PIPE FITTINGS
TRUE FORGE PVT.LTD.,	BUTT WELDED PIPE FITTINGS
DEE DEVELOPMENT ENGINEERS LTD.,	BUTT WELDED PIPE FITTINGS
P.K. TUBES & FITTINGS PVT. LTD.	BUTT WELDED PIPE FITTINGS
TESHI ENGINEERS AND SALES PROMOTERS	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
Jindal forging Pvt Ltd	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
FLOWTECH	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
ENGINEERING SERVICE ENTERPRISE	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
N L HAZRA AND SON	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
M.S. FITTINGS MANUFACTURING CO. PVT	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
LEADER VALVES LIMITED	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
REAL FORGE & FITTING	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
SUPER FORGE PVT LTD	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
NAV DURGA FORGING AND FITTINGS	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
FITTECH INDUSTRIES PVT. LTD.	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
PRECISION ENGINEERING INDS.,	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
SKY FORGE PRIVATE LIMITED	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
P.K. TUBES & FITTINGS PVT. LTD.	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
TRUE FORGE PVT.LTD.,	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
MECH WELL FITTINGS PVT LTD	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
PIPEFIT ENGINEERS PVT. LTD.	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
U I PIPE FITTINGS PVT. LTD.	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
CARLO DYNATECH INDUSTRIES,	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
FLASH FORGE PVT LTD	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
PRESHZINGER ENGINEERING	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
UNIQUE ENGINEERING ENTPS. PVT. LTD.	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
S.S.PIPE FITTINGS & FORGINGS	SOCKET WELDED / SCREWED WELDED PIPE FITTINGS
SREE PAVITHRA INDUSTRIES,	BOLTING MATERIAL
HARYANA FASTNERS	BOLTING MATERIAL
KWALITY FORGE	BOLTING MATERIAL
MORNING STAR INDUSTRIES,	BOLTING MATERIAL
PIONEER NUTS AND BOLTS PVT.LTD	BOLTING MATERIAL
TorqBolt Inc.	BOLTING MATERIAL
MEGA ENGINEERING PVT. LTD.	BOLTING MATERIAL
PRESIDENT ENGINEERING WORKS	BOLTING MATERIAL
ATLAS FASTENERS	BOLTING MATERIAL
PROTECH CONTROL INSTRUMENTS	THERMOWELLS
TEMPSENS INSTRUMENTS (I) PVT.LTD.	THERMOWELLS

NAV DURGA FORGING AND FITTINGS	THERMOWELLS
GAUGES BOURDON INDIA PVT. LTD.	THERMOWELLS
PRECISION ENGINEERING INDS.,	THERMOWELLS
CHEMTROLS INDUSTRIES PVT LTD.	THERMOWELLS
TEMP-TECH	THERMOWELLS
BAUMER TECHNOLOGIES	THERMOWELLS
SCIENTIFIC DEVICES (BOMBAY) PVT. LT	THERMOWELLS
H.GURU INSTRUMENTS(S.I)PVT.LTD	THERMOWELLS
PRECISION MASS PRODUCTS PVT LTD	THERMOWELLS
PYRO ELECTRIC INSTRUMENTS GOA	THERMOWELLS
ALTOP INDUSTRIES LIMITED	THERMOWELLS
VALUE TREK ENGINEERS,	THERMOWELLS

Important Note:

Bidders may note the following points while quoting in Gem portal:

1. Schedule-1 Mentioned gem is related Package-2 of Tender Document i.e for NTPC LTD, SINGRAULI project

2. Schedule-2 Mentioned gem is related Package-1 of Tender Document i.e for NTPC LTD, LARA project

Bidders may note above point & Quote Accordingly.

ANNEXURE- 1

CHECK LIST

NOTE: - Suppliers are required to fill in the following details in their Letterhead and no column should be left blank

A	**Name and Address of the Supplier**	
B	**GSTN No. the Supplier (Place of Execution of Contract / Purchase Order)**	
C	**Details of Contact person for this Tender**	Name: Mr./ Ms. Designation: Telephone No: Mobile No: Email ID:
D	**EMD DETAILS**	

E	**DESCRIPTION**	**APPLICABILITY (BY BHEL)**	**ENCLOSED BY BIDDER**
i.	Whether **Pre - Qualification Criteria** is understood and provided proper supporting documents.	Applicable/ Not Applicable	YES / NO
ii.	Whether all pages of the Tender documents including annexures, appendices etc are read and understood	Applicable/ Not Applicable	YES / NO
iii.	Audited Balance Sheet and profit & Loss Account for the last three years	Applicable/ Not Applicable	YES / NO
iv.	Copy of PAN Card & GST registration	Applicable/ Not Applicable	YES / NO
v.	Submission of **MSE certificate** as specified in Tender	Applicable/ Not Applicable	YES / NO
vi.	**Offer forwarding letter** / tender submission letter as per Annexure – 2	Applicable/ Not Applicable	YES / NO
vii.	Submission of **Certificate of No Deviation** as per Annexure – 3	Applicable/ Not Applicable	YES / NO
viii.	Declaration regarding **Insolvency/ Liquidation/ Bankruptcy Proceedings** as per Annexure – 4	Applicable/ Not Applicable	YES / NO
ix.	Declaration by **Authorized Signatory** as per Annexure – 5	Applicable/ Not Applicable	YES / NO
x.	Declaration by **Authorized Signatory regarding Authenticity** of submitted Documents Annexure – 6	Applicable/ Not Applicable	YES / NO
xi.	Submission of **Non-Disclosure Certificate** as per Annexure – 7	Applicable/ Not Applicable	YES / NO
xii.	Submission of **Integrity Pact** as specified in Tender as per Annexure – 8	Applicable/ Not Applicable	YES / NO

xiii.	Declaration **confirming knowledge about Site Conditions** as per Annexure – 9	Applicable/ Not Applicable	YES / NO
xiv.	Declaration reg. **Related Firms & their areas of Activities** as per Annexure – 10	Applicable/ Not Applicable	YES / NO
xv.	Declaration for **relation in BHEL** as per Annexure – 11	Applicable/ Not Applicable	YES / NO
xvi.	Declaration reg. **minimum local content** in line with revised public procurement as per Annexure – 12	Applicable/ Not Applicable	YES / NO
xvii.	Declaration regarding c**ompliance to Restrictions under Rule 144 (xi) of GFR 2017** as per Annexure – 13	Applicable/ Not Applicable	YES / NO
xviii.	**Bank Account Details** for E-Payment as per Annexure – 14	Applicable/ Not Applicable	YES / NO
xix.	**Power of Attorney** for submission of tender as per Annexure – 15	Applicable/ Not Applicable	YES / NO
xx.	**Proforma of Bank Guarantee for Earnest Money** as per Annexure – 16	Applicable/ Not Applicable	YES / NO

NOTE: Strike off 'YES' or 'NO', as applicable. Tender not accompanied by the prescribed **above applicable documents** are liable to be summarily rejected.

DATE :

Sign. of the AUTHORISED SIGNATORY
(With Name, Designation and Company seal)

ANNEXURE - 2

OFFER FORWARDING LETTER / TENDER SUBMISSION LETTER

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

Offer Reference No: ……. Date: …….

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Submission of Offer against GeM Bid No: ……

Having examined the tender documents against your GeM Bid No. _____ dated _____ and having understood the provisions of the said tender documents and having thoroughly studied the requirements of BHEL related to the work tendered for, in connection with _____ (name of work & project site), we hereby submit our offer for the proposed work in accordance with terms and conditions mentioned in the tender documents, at the prices quoted by us and as per the indicated delivery schedule.

Should our Offer be accepted by BHEL for Award, I/we further agree to furnish 'Performance Security' for the work as provided for in the Tender Conditions within the stipulated time as may be indicated by BHEL.

I/We further agree to execute all the works referred to in the said Tender documents upon the terms and conditions contained or referred to therein and as detailed in the appendices annexed thereto.

I/We have deposited herewith the requisite Earnest Money Deposit (EMD) as per details furnished in the Check List.

Authorised Representative of Bidder
Signature:
Name:
Address:

Place:
Date:

ANNEXURE- 3

CERTIFICATE OF NO DEVIATION

(To be Typed & submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Subject: **No Deviation Certificate**

Ref: 1) GeM Bid No: ……,
2) All other pertinent issues till date

We hereby confirm that we have not changed/ modified/materially altered any of the tender documents as downloaded from the website/ issued by BHEL and in case of such observance at any stage, it shall be treated as null and void.

We also hereby confirm that we have neither set any Terms and Conditions and nor have we taken any deviation from the Tender conditions together with other references applicable for the above referred GeM Bid.

We further confirm our unqualified acceptance to all Terms and Conditions, unqualified compliance to Tender Conditions.

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

Thanking you,

Yours faithfully,

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

Date:
Place:

ANNEXURE- 4

UNDERTAKING

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir/Madam,

Sub: DECLARATION REGARDING INSOLVENCY/ LIQUIDATION/ BANKRUPTCY PROCEEDINGS

Ref: GeM Bid Specification No:

I/We, _____ declare that, I/We am/are not admitted under insolvency resolution process or liquidation under Insolvency and Bankruptcy Code, 2016, as amended from time to time or under any other law as on date, by NCLT or any adjudicating authority/authorities.

Sign. of the AUTHORISED SIGNATORY
(With Name, Designation and Company seal)

Place:
Date:

ANNEXURE – 5

DECLARATION BY AUTHORISED SIGNATORY OF BIDDER

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: **Declaration by Authorised Signatory**

Ref: 1) GeM Bid Specification No: .....

2) All other pertinent issues till date

I/We, hereby certify that all the information and data furnished by me with regard to the above Tender Specification are true and complete to the best of my knowledge. I have gone through the specifications, conditions, stipulations and all other pertinent issues till date, and agree to comply with the requirements and Intent of the specification.

I further certify that I am authorised to represent on behalf of my Company/Firm for the above mentioned tender and a valid Power of Attorney to this effect is also enclosed.

Yours faithfully,

(Signature, Date & Seal of Authorized Signatory of the Bidder)

Date:

Enclosed: Power of Attorney

ANNEXURE – 6

DECLARATION BY AUTHORISED SIGNATORY OF BIDDER

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Declaration by Authorised Signatory regarding Authenticity of submitted documents.**

Ref : 1) GeM Bid No. & Date: .....

2) All other pertinent issues till date

I/We, hereby certify that all the documents submitted by us in support of possession of "Qualifying Requirements" are true copies of the original and are fully compliant required for qualifying / applying in the bid and shall produce the original of same as and when required by Bharat Heavy Electricals Limited.

I / We hereby further confirm that no tampering is done with documents submitted in support of our qualification as bidder. I / We understand that at any stage (during bidding process or while executing the awarded contract) if it is found that fake / false / forged bid qualifying / supporting documents / certificates were submitted, it would lead to summarily rejection of our bid / termination of contract. BHEL shall be at liberty to initiate other appropriate actions as per the terms of the Bid / Contract and other extant policies of Bharat Heavy Electricals Limited.

Yours faithfully,

(Signature, Date & Seal of Authorized Signatory of the Bidder)

Date:

ANNEXURE- 7

NON-DISCLOSURE CERTIFICATE

(To be Typed & submitted in the Letter Head of the Company/Firm of Bidder)

I/We understand that BHEL **<PS- Region>** is committed to Information Security Management System as per their Information Security Policy.

Hence, I/We M/s ..... who are submitting offer for providing services to BHEL **<PS- Region>** against GeM Bid No..... hereby undertake to comply with the following in line with Information Security Policy of **<PS- Region>**.

- To maintain confidentiality of documents & information which shall be used during the execution of the Contract.
- The documents & information shall not be revealed to or shared with third party which shall not be in the business interest of BHEL **<PS- Region>**.

(Signature, date & seal of Authorized Signatory of the bidder)

Date:

ANNEXURE – 8

INTEGRITY PACT

Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for _____
_____
_____ . The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1- Commitments of the Principal

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through

which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

1.1.3 The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/ Contractor(s)

2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and will await their decision in the matter.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 4 - Compensation for Damages

4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/ Bid Security.

4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher.

Section 5 - Previous Transgression

5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 - Equal treatment of all Bidders/ Contractors / Sub-contractors

6.1 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors. In case of sub-contracting, the Principal contractor shall be responsible for the adoption of IP by his sub-contractors and shall continue to remain responsible for any default by his sub-contractors.

6.2 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

Section 7 - Criminal Charges against violating Bidders/ Contractors /Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 -Independent External Monitor(s)

8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.

8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality in line with Non- disclosure agreement.

8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

8.5 The role of IEMs is advisory, would not be legally binding and it is restricted to resolving issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.

8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter should be examined by the full panel of IEMs jointly as far as possible, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.

8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to CMD, BHEL, at the earliest. They may also send their report directly to the CVO and the Commission,

in case of suspicion of serious irregularities requiring legal/ administrative action. IEMs will tender their advice on the complaints within 10 days as far as possible.

8.8 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.

8.9 IEM should examine the process integrity; they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the organization should be looked into by the CVO of the concerned organisation.

8.10 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code/ Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8.11 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.

8.12 The word `Monitor' would include both singular and plural.

Section 9 - Pact Duration

9.1 This Pact shall be operative from the date IP is signed by both the parties till the final completion of contract for successful bidder and for all other bidders 6 months after the contract has been awarded. Issues like warranty / guarantee etc. should be outside the purview of IEMs.

9.2 If any claim is made/ lodged during currency of IP, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 - Other Provisions

10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.

10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

10.5 Only those bidders / contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

For & On behalf of the Principal

(Office Seal)

For & On behalf of the Bidder/ Contractor

(Office Seal)

Place----------

Date----------

Witness:_____

(Name & Address) _____

_____

Witness:_____

(Name & Address) _____

_____

ANNEXURE – 9

DECLARATION CONFIRMING KNOWLEDGE ABOUT SITE CONDITIONS

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Declaration confirming knowledge about Site conditions
Ref: 1) GeM Bid Specification No: .....
2) All other pertinent issues till date

I/We, _____ hereby declare and confirm that we have visited the Project Site as referred in BHEL Tender Specifications and acquired full knowledge and information about the Site conditions including Wage structure, Industrial Climate, the Law & Order and other conditions prevalent at and around the Site. We further confirm that the above information is true and correct and we shall not raise any claim of any nature due to lack of knowledge of Site conditions.

I/We, hereby offer to carry out work as detailed in above mentioned Tender Specification, in accordance with Terms & Conditions thereof.

Yours faithfully,

(Signature, Date & Seal of Authorized Representative of the Bidder)

Date:
Place:

ANNEXURE – 10

DECLARATION

Date: _____

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir/ Madam,

Sub: **Details of related firms and their area of activities**

Please find below details of firms owned by our family members that are doing business/ registered for same item with BHEL, _____ (NA, *if not applicable*)

1	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
2	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
…		

Note: ***I certify that the above information is true and I agree for penal action from BHEL in case any of the above information furnished is found to be false.***

Regards,

(_____)

From: M/s _____

Supplier Code: _____

Address: _____

_____

_____

ANNEXURE – 11

DECLARATION FOR RELATION IN BHEL

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder failing which the offer of Bidder is liable to be summarily rejected)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Declaration for relation in BHEL

Ref: 1) GeM Bid Specification No: .....

I/We hereby submit the following information pertaining to relation/relatives of Proprieter/Partner(s)/ Director(s) employed in BHEL

Tick (√) any one as applicable:

1. The Proprieter, Partner(s), Director(s) of our Company/Firm DO NOT have any relation or relatives employed in BHEL

OR

2. The Proprieter, Partner(s), or Director(s) of our Company/Firm HAVE relation/relatives employed in BHEL and their particulars are as below:

   i.

   ii.

(Signature, Date & Seal of Authorized Signatory of the Bidder)

Note:

1. Attach separate sheet, if necessary.
2. If BHEL Management comes to know at a later date that the information furnished by the Bidder is false, BHEL reserves the right to take suitable against the Bidder/Contractor.

ANNEXURE – 12

DECLARATION REGARDING MINIMUM LOCAL CONTENT IN LINE WITH REVISED PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER 2017 DATED 04TH JUNE, 2020 AND SUBSEQUENT ORDER(S)

(To be typed and submitted in the Letter Head of the Entity/Firm providing certificate as applicable)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Declaration reg. minimum local content in line with Public Procurement (Preference to Make in India), Order 2017-Revision, dated 04th June, 2020 and subsequent order(s).

Ref: 1) GeM Bid Specification No: ……
2) All other pertinent issues till date

We hereby certify that the items/works/services offered by…… *(specify the name of the organization here)* has a local content of _____ % and this meets the local content requirement for **'Class-I local supplier' / 'Class II local supplier' **** as defined in Public Procurement (Preference to Make in India), Order 2017-Revision dated 04.06.2020 issued by DPIIT and subsequent order(s).

The details of the location(s) at which the local value addition is made are as follows:

1. _____ 2. _____

3. _____ 4. _____

…

Thanking you,
Yours faithfully,

(Signature, Date & Seal of Authorized Signatory of the Bidder)

****** - *Strike out whichever is not applicable.*

Note:

1. Bidders to note that above format, duly filled & signed by authorized signatory, shall be submitted along with the techno-commercial offer.
2. In case the bidder's quoted value is in excess of Rs. 10 crores, the authorized signatory for this declaration shall necessarily be the statutory auditor or cost auditor of the company (in the case of companies) or a practising cost accountant or practicing chartered accountant (in respect of suppliers other than companies).
3. In the event of false declaration, actions as per the above order and as per BHEL Guidelines shall be initiated against the bidder.

ANNEXURE – 13

DECLARATION REGARDING COMPLIANCE TO RESTRICTIONS UNDER RULE 144 (xi) OF GFR 2017

(To be typed and submitted in the Letter Head of the Entity/ Firm providing certificate as applicable)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Declaration regarding compliance to Restrictions under Rule 144 (xi) of GFR 2017

Ref: 1) GeM Bid Specification No: .....
2) All other pertinent issues till date

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I certify that _____ (**SPECIFY THE NAME OF THE ORGANIZATION HERE**), is not from such a country/ has been registered with the Competent Authority (*attach valid registration by the Competent Authority, i.e., the Registration Committee constituted by the Dept. for Promotion of Industry and Internal Trade (DPIIT*).

I hereby certify that we fulfil all requirements in this regard and is eligible to be considered.

Thanking you,
Yours faithfully,

(Signature, Date & Seal of
Authorized Signatory of the Bidder)

Note: Bidders to note that in case above certification given by a bidder, whose bid is accepted, is found to be false, then this would be a ground for immediate termination and for taking further action in accordance with law and as per BHEL guidelines.

ANNEXURE – 14

BANK ACCOUNT DETAILS FOR E-PAYMENT

(To be given on Letter head of the Company /Firm of Bidder, and **ENDORSED (SIGNED & STAMPED) BY THE BANK** to enable BHEL release payments through Electronic Fund Transfer (EFT/RTGS)

---

1. Beneficiary Name :

2. Beneficiary Account No. :

3. Bank Name & Branch :

4. City/Place :

5. 9 digit M ICR Code of Bank Branch :

6. IFSC Code of Bank Branch :

7. Beneficiary E-mail ID :
   (for payment confirmation)

NOTE: In case Bank endorsed certificate regarding above has already been submitted earlier, kindly submit photocopy of the same

ANNEXURE – 15

POWER OF ATTORNEY for SUBMISSION OF TENDER

(To be typed on non-judicial stamp paper of minimum Rs. 100/- and Notarized)

KNOW ALL MEN BY THESE PRESENTS, that I/We do hereby make, nominate, constitute and appoint Mr. ..... , whose signature given below herewith to be true and lawful Attorney of M/s..... hereinafter called 'Company', for submitting Tender/entering into Contract and inter alia, sign, execute all papers and to do necessary lawful acts on behalf of Company with M/s Bharat Heavy Electricals Ltd, Central Procurement Cell (CPC), in connection with.....vide GeM Bid No: _____, dated _____.

And the Company do hereby agree to ratify and confirm all acts, deeds, things or proceedings as may be lawfully done by the said attorney and by or on behalf of the company and in the name of the company, by virtue of the powers conferred herein and the same shall be binding on the company and shall have full force and effect.

IN WITNESS WHEREOF, the common seal of the company has been hereunto affixed in the manner hereinafter appearing on the document.

Dated at _____, this _____ day of _____

Director/CMD/Partner/Proprietor

Signature of Mr. ..... (Attorney)

Attested by: Director/CMD/Partner/Proprietor

Witness

Notary Public

ANNEXURE – 16

PROFORMA OF BANK GUARANTEE FOR EARNEST MONEY

(On non-Judicial paper of appropriate value)

Bank Guarantee No.....
Date.....

To
(Employer's Name and Address)
.....

Dear Sirs,
In accordance with the terms and conditions of Invitation for Bids/Notice Inviting Tender No.....[1](Tender Conditions), M/s. ..... having its registered office at .....[2] (hereinafter referred to as the 'Tenderer'), is submitting its bid for the work of**.....**[3] invited by .....[4].(name of the Employer) through its Unit at .....(

The Tender Conditions provide that the Tenderer shall pay a sum of Rs ..... as Earnest Money Deposit in the form therein mentioned. The form of payment of Earnest Money Deposit includes Bank Guarantee executed by a Scheduled Bank.

In lieu of the stipulations contained in the aforesaid Tender Conditions that an irrevocable and unconditional Bank Guarantee against Earnest Money Deposit for an amount of .....[5] ..... is required to be submitted by the Tenderer as a condition precedent for participation in the said Tender and the Tenderer having approached us for giving the said Guarantee,

we, the .....[Name & address of the Bank]
..... having our Registered Office at
.....(hereinafter referred to as the Bank) being the Guarantor under this Guarantee, hereby irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer without any demur, merely on your first demand any sum or sums of Rs.
..... [5] (in words Rupees.....) without any reservation, protest, and recourse and without the beneficiary needing to prove or demonstrate reasons for its such demand.

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____ _____.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor/Contractor/Vendors in any suit or proceeding pending before any Court or Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment hereunder and the Tenderer shall have no claim against us for making such payment.

We ..... Bank further agree that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Tender or to extend the time of submission of from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Tenderer and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Tenderer or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Tenderer or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Tenderer and notwithstanding any security or other guarantee that the Employer may have in relation to the Tenderer's liabilities.

This Guarantee shall be irrevocable and shall remain in force upto and including.....[6] and shall be extended from time to time for such period as may be desired by the Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Tenderer but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms hereof. However, unless a demand or claim under this Guarantee is made on us in writing on or before the .....[7] we shall be discharged from all liabilities under this Guarantee.

This Bank Guarantee shall be governed, construed and interpreted in accordance with the laws of India.

Courts at ..... shall alone have exclusive jurisdiction over any matter arising out of or in connection with this Bank Guarantee

We, ... Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.
Notwithstanding anything to the contrary contained hereinabove:

a. The liability of the Bank under this Guarantee shall not exceed.....[5].....
b. This Guarantee shall be valid up to .....[6]

c. Unless the Bank is served a written claim or demand on or before _____[7] all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank

We, _____ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of
(Name of the Bank)

Date.....
Place of Issue.....

[1] *Details of the Invitation to Bid/Notice Inviting Tender*
[2] *Name and Address of the Tenderer*
[3] *Details of the Work*
[4] *Name of the Employer*
[5] *BG Amount in words and Figures*
[6] *Validity Date*
[7] *Date of Expiry of Claim Period*

Notes:

1. Units are advised that expiry of claim period may be kept 3-6 months after validity date. It may be ensured that the same is in line with the agreement/ contract entered with the Vendor.

2. The BG should be on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Contractor/sub-contractor /vendor/ Bank issuing the guarantee.

3. In line with the GCC, SCC or contractual terms, Unit may carry out minor modifications in the Standard BG Formats. If required, such modifications may be carried out after taking up appropriately with the Unit/Region's Law Deptt.

4. **In Case of Bank Guarantees submitted by Foreign Vendors-**
   a. **From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India)** can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e., Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.

   b. **From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)**

b.1 In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter-Guarantee by Foreign Bank in favour of the Indian Bank's (BHEL's Consortium Bank) branch in India. It is advisable that all charges for issuance of Bank Guarantee/ counter-Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.

b.2 In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at **sl.no. b.1** will required to be followed.

b.3 The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). The BG Format provided to them should clearly specify the same.

ANNEXURE – 17

BANK GUARANTEE FOR PERFORMANCE SECURITY

(On non-Judicial paper of appropriate value)

Bank Guarantee No:
Date:

To
NAME
& ADDRESSES OF THE BENEFICIARY

Dear Sirs,

In consideration of Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at_____[1] through its Unit at.....(name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) with its registered office at_____[2] hereinafter referred to as the ' Vendor / Contractor / Supplier ', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No.....dated .....[3] valued at Rs.....[4] (Rupees ----------) / FC.....(in words.....) for .....[5] (hereinafter called the 'Contract') and the Vendor / Contractor / Supplier having agreed to provide a Contract Performance Bank Guarantee, equivalent to .....% (.... Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

We, ..., (hereinafter referred to as the Bank), having registered/Head office at ..... and inter alia a branch at ..... being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer any sum or sums upto a maximum amount of Rs ---------- [6] (Rupees ----------) without any demur, immediately on first demand from the Employer and without any reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for its such demand.

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor / Contractor / Supplier in any suit or proceeding pending before any Court or

Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the Vendor / Contractor / Supplier shall have no claim against us for making such payment.

We the .....bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract/ satisfactory completion of the performance guarantee period as per the terms of the Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

We .....BANK further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Vendor / Contractor / Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Vendor / Contractor / Supplier and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Vendor / Contractor / Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Vendor / Contractor / Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Vendor / Contractor / Supplier and notwithstanding any security or other guarantee that the Employer may have in relation to the Vendor /Contractor / Supplier 's liabilities.

This Guarantee shall remain in force upto and including..... [7] and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Vendor / Contractor / Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

Unless a demand or claim under this guarantee is made on us in writing on or before the .....[8] we shall be discharged from all liabilities under this guarantee thereafter.

This Bank Guarantee shall be governed, construed and interpreted in accordance with the laws of India.

Courts at ..... shall alone have exclusive jurisdiction over any matter arising out of or in connection with this Bank Guarantee

We, ... BANK lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

a. The liability of the Bank under this Guarantee shall not exceed..... [6]
b. This Guarantee shall be valid up to .....[7]
c. Unless the Bank is served a written claim or demand on or before _____[8] all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We, _____ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of
(Name of the Bank)

Dated.....
Place of Issue.....

[1] *NAME AND ADDRESS OF EMPLOYER i.e., Bharat Heavy Electricals Limited*
[2] *NAME AND ADDRESS OF THE VENDOR /CONTRACTOR / SUPPLIER.*
[3] *DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE*
[4] *CONTRACT VALUE*
[5] *PROJECT/SUPPLY DETAILS*
[6] *BG AMOUNT IN FIGURES AND WORDS*
[7] *VALIDITY DATE*
[8] *DATE OF EXPIRY OF CLAIM PERIOD*

Note:

1. Units are advised that expiry of claim period may be kept 3-6 months after validity date. It may be ensured that the same is in line with the agreement/ contract entered with the Vendor.

2. The BG should be on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Vendor/Contractor/Supplier /Bank issuing the guarantee.

3. In line with the GCC, SCC or contractual terms, Unit may carry out minor modifications in the Standard BG Formats. If required, such modifications may be carried out after taking up appropriately with the Unit/Region's Law Deptt.

4. **In Case of Bank Guarantees submitted by Foreign Vendors-**
    a. **From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India)** can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e.

Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.

b. From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)

b.1 In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter-Guarantee by Foreign Bank in favour of the Indian Bank's (BHEL's Consortium Bank) branch in India. It is advisable that all charges for issuance of Bank Guarantee/ counter-Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.

b.2 In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at **sl.no. b.1** will required to be followed.

b.3 The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). The BG Format provided to them should clearly specify the same.

ANNEXURE – 18

LIST OF CONSORTIUM BANK

Sl. No.	NAME OF THE BANK
1	State Bank of India
2	Canara Bank
3	IDBI Bank Limited
4	ICICI Bank Limited
5	HDFC Bank Limited
6	Axis Bank
7	IndusInd Bank Limited
8	Bank of Baroda
9	Exim Bank
10	Indian Bank
11	Punjab National Bank
12	Union Bank of India
13	Yes Bank Limited
14	RBL Bank Ltd.
15	Standard Chartered Bank
16	Indian Overseas Bank
17	Kotak Mahindra Bank Limited
18	Federal Bank Limited
19	Hongkong and Shanghai Banking Corporation Ltd