

UNPRICED SCHEDULE**PROJECT: FGD FOR NPGCL NABINAGAR THERMAL POWER PROJECT(3X660 MW)**

Sl. No.	MATERIAL CODE	Boards	TYPE	Rating	UNIT	Qty	Unit Rate including P&F Charges and Freight Charges upto destination (Quoted / Not Quoted)	Freight % (Included in Unit Rate) Eg. (Quoted / Not Quoted)	Freight % (Included in Unit Rate) To be mentioned (eg. 2.00%)	Total Value price as per applicable Annexure (Quoted / Not Quoted)	Applicable Annexure
1	CP1087010012	415V LHP & GHP PMCC # 0DA , 4000A	DFDO	4000A	EA	1					Refer ANNEXURE-B1
2	CP1087010020	415V MISC SERVICE PMCC # 0DB, 4000A	DFDO	4000A	EA	1					Refer ANNEXURE-B2
3	CP1087010039	415V FGD SERVICE UNIT-1 PMCC # 0DC, 4000A	DFDO	4000A	EA	1					Refer ANNEXURE-B3
4	CP1087010047	415V FGD SERVICE UNIT-2 PMCC # 0DE, 4000A	DFDO	4000A	EA	1					Refer ANNEXURE-B4
5	CP1087010055	415V EMERGENCY MCC # 0DG,2000A	DFDO	2000A	EA	1					Refer ANNEXURE-B5
6	CP1087010063	220V DCDB # 0FA,63A	DFFT	63A	EA	1					Refer ANNEXURE-B6
7	CP1087010071	415V FGD SERVICE UNIT-3 MCC # 0SA, 1000A	DFDO	1000A	EA	1					Refer ANNEXURE-B7
8	CP1087010080	415V FGD COMMON MCC # 0SB, 1250A	DFDO	1250A	EA	1					Refer ANNEXURE-B8
9	CP1087010098	415V GDW AREA MCC # 0SC, 2000A	DFDO	2000A	EA	1					Refer ANNEXURE-B9
10	CP1087010101	415V AC & VENTILATION ACDB # 0QA, 250A	DFFT	250A	EA	1					Refer ANNEXURE-B10
11	CP1087010110	DC FUSE DB	Wall mounted	63A	EA	4					Not Applicable
12	CP1087010128	AC FUSE DB	Wall mounted	63A	EA	4					Not Applicable
13	CP1087010136	Mandatory spares for LT switchgear (ANNEXURE-D)			LOT	1					Refer ANNEXURE-D
14	CP1087010144	COMMISSIONING SPARES-ANNEXURE-E			LOT	1					Refer ANNEXURE-E
15	CP1087010152	TOOLS & TACKLES -ANNEXURE-F			LOT	1					Refer ANNEXURE-F
16	CP1087010160	COMMISSIONING CHARGE FOR NUMERICAL RELAY-ANNEXURE-H			LOT	1		Not Applicable for Service			Refer ANNEXURE-H
17	CP1087010179	SITE MODIFICATION CHARGES (As per Annexure-J)			LOT	1		Not Applicable for Service			Refer ANNEXURE-J

NOTES:

- SUMMATION OF ALL UNIT RATES OF MODULES SHALL BE EQUIVALENT TO TOTAL BOARD COST QUOTED, VARIANCE OF +/- 5% IS ACCEPTABLE. BEYOND 5% OFFER WILL NOT BE CONSIDER AS VALID OFFER. IN UNIT ADDITION-DELETION PRICES, PRICES QUOTED FOR COMPONENTS SHALL BE AS PER LIST PRICE OF CONCERNED MANUFACTURES. IF ANY ABNORMAL PRICES ON HIGHER SIDE OBSERVED OFFER MAY BE REJECTED.
- ALL LT PCC/ MCC/ DBs SHALL BE SUPPLIED ALONGWITH THE INTEGRAL BASE FRAMES, FOUNDATION BOLTS, CABLE GLANDS & LUGS AND TOOLS & TACKLES AS MENTIONED IN DIFFERENT SECTIONS. ALL FIXING NUTS & BOLTS TOGETHER WITH FOUNDATION BOLTS SHALL ALSO BE SUPPLIED.
- ITEM WISE PRICES WITH DESCRIPTION AND RATING OF EACH ITEM COMPLYING TO LIST FURNISHED IN THE SCHEDULE OF UNIT PRICES SHALL BE FURNISHED IN SCHEDULE OF UNIT PRICE.
- FOR DETAILED BOARD WISE BOM, REFER ANNEXURE-B1 TO B10
- FOR DETAILED MODULE WISE BOM, REFER ANNEXURE-C.
- ADDITION/DELETION OF QUANTITIES SHALL BE APPLICABLE AT THE QUOTED PRICE.THE UNIT RATE OF SUPPLY OF ALL EQUIPMENTS & SERVICES QUOTED BY THE BIDDER SHALL BE FIRM FOR A VARIATION OF QUANTITIES, WHICH MAY BE TO THE EXTENT OF ±30% OF THE TOTAL CONTRACT VALUE DERIVED ON THE BASIS OF ORDERED QUANTITY. SUM OF INDIVIDUAL MODULE SHALL EQUAL TO BOARD PRICE.
- COMPLETE DIMENSIONS OF ALL THE BOARDS INCLUDING NO OF ACB, MCC. GA DRAWING SHALL BE DULY SUBMITTED FOR ALL BOARDS.
 - DIMENSIONS OF EACH TYPE OF PANEL.
 - MODULE SIZE OF EACH TYPE OF FEEDER.
 - MINIMUM CLEARANCES REQUIRED ON ALL SIDES FOR EACH TYPE OF PANEL.
 - NO. of VERTICAL (including PCC, MCC etc.) of EACH PANLES TO BE GIVEN, ELSE YOUR OFFER WILL BE REJECTED.
- DOUBLE COMPRESSION, NICKLE PLATED BRASS CABLE GLANDS & HEAVY DUTY LUGS OF NTPC APPROVED MAKE FOR EXTERNAL POWER, CONTROL & EARTHING CONNECTIONS AT SUPPLIED EQUIPMENT END AND FOUNDATION BOLT ARE IN THE SCOPE OF BIDDER. BIDDER TO QUOTE ALL EQUIPMENT WITH CABLE GLANDS, LUGS AND FOUNDATION BOLTS.
- EACH CABLE ALLEY SHALL BE PROVIDED WITH SPACE HEATER & ILLUMINATION CIRCUIT ALONG WITH PLUG, SOCKET & DOOR SWITCH.

ANNEXURE-B1

Name of the Board: 415V LHP & GHP PMCC # 0DA , 4000A

TYPE OF CONNECTION: TOP/SIDE BUSDUCT ENTRY

DOUBLE FRONT D/O TYPE

Sl. No.	Feeder type	Rating	Total feeders	Unit Price	Total price
1	DK2	0.37KW	3		
2	DK2	0.55KW	17		
3	DK2	11KW	3		
4	DK2	15KW	7		
5	DK2	18.5KW	3		
6	DK2	2.2KW	5		
7	DK2	3.7KW	3		
8	DK2	5.5KW	3		
9	DK2	7.5KW	7		
10	DK21	30KW	7		
11	DK21	37KW	8		
12	DN1	1.1KW	3		
13	DN1	15KW	3		
14	DUAL DOL	1.96 kW X 2	4		
15	E3	100A	3		
16	E3	160A	9		
17	E3	16A	17		
18	E3	250A	3		
19	E3	32A	39		
20	E3	63A	18		
21	DAE-O/G	1250A	2		
22	DAET-I/C	4000A	2		
23	DAE-B/C	4000A	1		
24	BUS PT - G1	50VA	2		
25	CS	2KVA	2		
26	ACB I/C PANELS	4000A	2		
27	ACB B/C PANEL	4000A	1		
28	MCC (DFDO)	4000A	As req		
29	DUMMY PANELS	4000A	1		
30	ETHERNET SWITCH		1		

ANNEXURE-B2

Name of the Board: 415V MISC SERVICE PMCC # 0DB, 4000A

TYPE OF CONNECTION: TOP/SIDE BUSDUCT ENTRY

DOUBLE FRONT D/O TYPE

Sl. No.	Feeder type	Rating	Total feeders	Unit Price	Total price
1	DAE-B/C	4000A	1		
2	DAET-I/C	4000A	2		
3	DK2	0.37KW	3		
4	DK2	1.5KW	2		
5	DK2	15KW	8		
6	DK2	22KW	7		
7	DK2	3KW	3		
8	DK21	30KW	6		
9	DK21	37KW	5		
10	DM	160KW	3		
11	E1	16A	39		
12	E3	125A	12		
13	E3	160A	6		
14	E3	16A	8		
15	E3	250A	4		
16	E3	32A	10		
17	E3	63A	6		
18	DAE-O/G	2000A	4		
19	ACB I/C PANELS	4000A	2		
20	ACB B/C PANEL	4000A	1		
21	ACB O/G PANELS	4000/2000A	2		
22	ACB O/G PANELS	4000/630A	2		
23	MCC (DFDO)	4000A	As req		
24	DUMMY PANELS	4000A	1		
25	ETHERNET SWITCH		1		

ANNEXURE-B3

Name of the Board: 415V FGD SERVICE UNIT-1 PMCC # 0DC, 4000A

TYPE OF CONNECTION: TOP/SIDE BUSDUCT ENTRY

DOUBLE FRONT D/O TYPE

Sl. No.	Feeder type	Rating	Total feeders	Unit Price	Total price
1	DAET-I/C	4000A	2		
2	DK2	15KW	5		
3	DK2	5.5KW	6		
4	DK2	3.7KW	5		
5	DK2	11KW	5		
6	DK21	30KW	5		
7	DK21	37KW	3		
8	DK21	45KW	3		
9	DM	90KW	2		
10	E1	125A	3		
11	E1	16A	20		
12	E3	125A	7		
13	E3	160A	4		
14	E3	16A	44		
15	E3	32A	8		
16	E3	63A	5		
17	DAE-B/C	4000A	1		
18	DAE-O/G	1000A	1		
19	DAE-O/G	2000A	1		
23	BUS PT - G1	50VA	2		
24	CS	2KVA	2		
25	ACB 1/C PANELS	4000A	2		
26	ACB B/C PANEL	4000A	1		
27	ACB O/G PANELS	4000/1000A	1		
28	ACB O/G PANELS	4000/2000A	1		
29	ACB O/G PANELS	4000/630A	1		
30	MCC (DFDO)	4000A	As req		
31	DUMMY PANELS	4000A	1		
32	ETHERNET SWITCH		1		

ANNEXURE-B4

Name of the Board: 415V FGD SERVICE UNIT-2 PMCC # 0DE, 4000A

TYPE OF CONNECTION: TOP/SIDE BUSDUCT ENTRY

DOUBLE FRONT D/O TYPE

Sl. No.	Feeder type	Rating	Total feeders	Unit Price	Total price
1	DAET-I/C	4000A	2		
2	DK2	15KW	5		
3	DK2	5.5KW	4		
4	DK2	3.7KW	5		
5	DK2	11KW	5		
6	DK21	30KW	5		
7	DK21	37KW	3		
8	DK21	45KW	3		
9	DM	90KW	2		
10	E1	125A	3		
11	E1	16A	18		
12	E1	32A	3		
13	E3	100A	4		
14	E3	125A	7		
15	E3	160A	4		
16	E3	16A	33		
17	E3	32A	8		
18	E3	63A	14		
19	DAE-B/C	4000A	1		
20	DAE-O/G	1000A	1		
21	DAE-O/G	2000A	1		
25	BUS PT - G1	50VA	2		
26	CS	2KVA	2		
27	ACB I/C PANELS	4000A	2		
28	ACB B/C PANEL	4000A	1		
29	ACB O/G PANELS	4000/1000A	1		
30	ACB O/G PANELS	4000/2000A	1		
31	ACB O/G PANELS	4000/630A	1		
32	MCC (DFDO)	4000A	As req		
33	DUMMY PANELS	4000A	1		
34	ETHERNET SWITCH		1		

ANNEXURE-B5

Name of the Board: 415V EMERGENCY MCC # 0DG,2000A

TYPE OF CONNECTION:CABLE ENTRY BOTTOM

DOUBLE FRONT D/O TYPE

Sl. No.	Feeder type	Rating	Total feeders	Unit Price	Total price
1	DAEG-I/C	2000A	1		
2	DK2	11KW	5		
3	DK2	15KW	6		
4	DK2	22KW	5		
5	DK2	3KW	7		
6	DK2	9.3KW	29		
7	DK21	37KW	3		
8	DK21	55KW	11		
9	DK21	75KW	3		
10	E3	160A	3		
11	E3	16A	8		
12	E3	32A	19		
13	E3	63A	9		
14	E3	200A	6		
15	DAE-I/C	2000A	2		
16	DAE-B/C	2000A	1		
17	BUS PT - G1	50VA	2		
18	CS	2KVA	2		
19	ACB I/C PANELS	2000A	2		
20	ACB B/C PANEL	2000A	1		
21	MCC (DFDO)	2000A	As req		
22	DUMMY PANELS	2000A	1		
23	ETHERNET SWITCH		1		

ANNEXURE-B6

Name of the Board:220V DCDB # 0FA,63A

TYPE OF CONNECTION: CABLE ENTRY BOTTOM

DOUBLE FRONT FIXED TYPE

Sl. No.	Feeder type	Rating	Total feeders	Unit Price	Total price
1	X	16A	24		
2	X	32A	17		
3	INCOMER-CH	63A	2		
4	INCOMER-DB	63A	2		
5	BUS COUPLER-DC	63A	1		
6	DC BUS METERING - S	220V DC	2		
7	MCC (DFFT)	63A	As req		
8	DUMMY PANELS	63A	1		

ANNEXURE-B7

Name of the Board: 415V FGD SERVICE UNIT-3 MCC # 0SA, 1000A

TYPE OF CONNECTION: CABLE ENTRY BOTTOM

DOUBLE FRONT D/O TYPE

Sl. No.	Feeder type	Rating	Total feeders	Unit Price	Total price
1	DK2	15KW	5		
2	DK2	5.5KW	4		
3	DK2	3.7KW	5		
4	DK2	11KW	5		
5	DK21	30KW	5		
6	DK21	37KW	3		
7	DK21	45KW	3		
8	DM	90KW	2		
9	E1	125A	2		
10	E1	16A	18		
11	E1	32A	4		
12	E3	125A	9		
13	E3	160A	3		
14	E3	16A	29		
15	E3	32A	11		
16	E3	63A	13		
17	DAE-I/C	1000A	4		
18	DAE-B/C	1000A	3		
22	BUS PT - G1	50VA	2		
23	CS	2KVA	2		
24	ACB I/C PANELS	1000A	2		
25	ACB B/C PANEL	1000A	1		
26	ACB O/G PANELS	1000/630A	1		
27	MCC (DFDO)	1000A	As req		
28	DUMMY PANELS	1000A	1		
29	ETHERNET SWITCH		1		

ANNEXURE-B8

Name of the Board: 415V FGD COMMON MCC # 0SB, 1250A

TYPE OF CONNECTION:CABLE ENTRY BOTTOM

DOUBLE FRONT D/O TYPE

SL. No.	Feeder type	Rating	Total feeders	Unit Price	Total price
1	DAE-B/C	1250A	1		
2	DAE-I/C	1250A	2		
3	DK2	15KW	12		
4	DK2	5.5KW	3		
5	DK2	7.5KW	3		
6	DK21	30KW	10		
7	DK21	37KW	3		
8	DK21	55KW	3		
9	DK21	90KW	5		
10	E1	16A	9		
11	E1	32A	3		
12	E3	100A	6		
13	E3	160A	4		
14	E3	16A	4		
15	E3	32A	13		
16	E3	63A	11		
17	BUS PT - G1	50VA	2		
18	CS	2KVA	2		
19	ACB 1/C PANELS	1250A	2		
20	ACB B/C PANEL	1250A	1		
21	MCC (DFDO)	1250A	As req		
22	DUMMY PANELS	1250A	1		
23	ETHERNET SWITCH		1		

ANNEXURE-B9

Name of the Board: 415V GDW AREA MCC # 0SC, 2000A

TYPE OF CONNECTION: CABLE ENTRY BOTTOM

DOUBLE FRONT D/O TYPE

Sl. No.	Feeder type	Rating	Total feeders	Unit Price	Total price
1	DAE-B/C	2000A	1		
2	DAE-I/C	2000A	2		
3	DK2	0.55KW	4		
4	DK2	1.1KW	24		
5	DK2	1.5KW	35		
6	DK2	11KW	3		
7	DK2	15KW	11		
8	DK2	18.5KW	9		
9	DK2	22KW	5		
10	DK2	3.7KW	3		
11	DK2	5.5KW	2		
12	DK2	7.5KW	4		
13	DK2	0.75KW	2		
14	DK2	0.186KW	2		
15	DK21	30KW	4		
16	DK21	37KW	3		
17	DK21	45KW	12		
18	DK21	75KW	6		
19	DM	110KW	3		
20	DN1	1.5KW	3		
21	E1	16A	7		
22	E3	100A	3		
23	E3	160A	6		
24	E3	16A	53		
25	E3	32A	7		
26	E3	63A	18		
29	BUS PT - G1	50VA	2		
30	CS	2KVA	2		
31	ACB I/C PANELS	2000A	2		
32	ACB B/C PANEL	2000A	1		
33	ACB O/G PANELS	1600/630A	3		
34	MCC (DFDO)	1600A	As req		
35	DUMMY PANELS	1600A	1		
36	ETHERNET SWITCH		1		

ANNEXURE-B10

Name of the Board: 415V AC & VENTILATION ACDB # 0QA, 250A

TYPE OF CONNECTION: CABLE ENTRY BOTTOM

DOUBLE FRONT FIXED TYPE

FLOOR MOUNTED

Sl. No.	Feeder type	Rating	Total feeders	Unit Price	Total price
1	DK2	0.1KW	19		
2	DK2	1.1KW	14		
3	DK2	1.5KW	42		
4	DK2	2.2KW	5		
5	E1	16A	31		
6	E3	16A	23		
7	E3	32A	6		
8	EM3-I/C	250A	2		
9	EM3-B/C	250A	1		
10	BUS PT - VM		2		
11	CS	2KVA	2		
12	MCC (DFFT)	250A	As req		

ANNEXURE-D
MANDATORY SPARES

	PARTICULARS	QTY.	MF	UNIT PRICE (Rs.)	TOTAL PRICE (Rs.)
Part A:					
1	Complete breaker	10% of each type & rating (min 1 no.)	1		
2	Ammeter	2 Nos of each type, size & range	1		
3	Voltmeter	2 Nos of each type, size & range	1		
4	Relays	10% of each type & rating (min 2 no.)	1		
5	Bus bar support insulators	10 Nos.	1		
Part B:					
1	Spring charging motors	3 Nos. of each type & rating	1		
2	Aux. Contact set	6 sets of each type & rating	1		
3	Limit switches	10 Nos. of each type	1		
4	Arc chutes	10% of each type & rating	1		
5	Fixed contact set	3 Nos. of each type & rating	1		
6	Moving contact set	3 Nos. of each type & rating	1		
7	Arcing contact	3 Nos. set each type	1		
8	Charging spring	2 Nos. each type & rating	1		
9	Current transformer	3 Nos. of each type & ratio	1		
10	Closing Coil	6 Nos. of each type & rating	1		
11	Trip Coil	6 Nos. of each type & rating	1		
12	CT for Bimetal O/L relays	3 Nos. of each type and rating	1		
13	Voltage transformer	3 Nos. of each type & ratio	1		
14	Control Supply transformer	3 Nos. of each type and rating	1		
15	(a) Power contactor	2 Nos. each type & rating	1		
16	(b) Coil of above contactor	2 Nos. each type & rating	1		
17	Air break switches/ MCCBs	3 Nos. of each type & rating	1		
18	DP air break switches (DC)	3 Nos. of each type & rating	1		
19	Control & Selector switches	3 Nos. of each type & rating	1		
20	Control fuses & neutral links	Total 50 Nos. (Fuses) & 10 Nos. (Neutral links to cover all ratings)	1		
21	Indicating lamps	Total 30 Nos. to cover all the types & ratings	1		
22	Vertical bus bar dropper support insulators	25 Nos.	1		
23	Intentionally left blank				
24	(a) Primary disconnect in MCC (Bus bar end) (Male/female contact)	Total 15 Nos. proportionately divide for all ratings	1		
25	(b) Secondary disconnect in MCC (Cable end)	Total 15 Nos. proportionately divide for all ratings	1		
26	Push buttons	10 Nos. of each type	1		
27	Power fuses	Total 20% proportionately divide for all ratings (min 3 Nos)	1		
28	Thermal Bimetal relays	Total 5% proportionately divide for all ratings (min 1 No.)	1		
29	Current transducers	2 Nos. of each type & rating	1		
30	Voltage transducers	2 Nos. of each type & rating	1		
31	Busbar aluminium flat pieces	12 meters of each type & rating	1		
32	Busbar angles/ formed pieces for breaker	2 Nos. of each type & rating	1		
33	Terminal blocks	12 Nos. of each type & rating	1		

ERECTION & COMMISSIONING (E & C) SPARES

Sl.No.	ITEM / COMPONENT	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
1	FACTORY BUILT ASSEMBLIES (PCC/MCC/DB)				
1.1	Horizontal Busbar Supports	1 Set of 3 Poles	1		
1.2	Primary isolating contacts each rating (Bus side)	1 Set of 3 Poles	1		
1.3	Primary isolating contacts each rating (Load side)	1 Set of 3 Poles	1		
1.4	Secondary isolating contacts each rating	1 Set of 3 Poles	1		
1.5	Gaskets (each size)	Meter	50		
1.6	Fixed terminal (one way)	Nos.	20		
1.7	Shrouds for outgoing modules each size	Nos.	1		
1.8	Wire for secondary wiring, 2.5 sq. mm	Meter	100		
1.9	Wire for secondary wiring, 1.5 sq. mm	Meter	100		
1.10	Lugs for secondary wiring	Nos.	100		
2	AIR CIRCUIT BREAKER COMPONENTS				
2.1	Shunt Trip Coil-Each rating	Nos.	5		
2.2	Spring charging motor-Each rating	Nos.	1		
2.3	Closing coil-Each Rating	Nos.	5		
3	ISOLATING SWITCH				
3.1	Main contact kit of each rating	1 Set of 3 Poles	1		
4	POWER CONTACTORS				
4.1	Contactor coil of each rating (110V AC)	Nos.	1		
4.2	Contacts kit of each rating (Main)	1 Set of 3 Poles	1		
5	AUXILIARY CONTACTORS				
5.1	Complete unit with 2NO + 2NC contacts, each rating	Nos.	1		
6	HRC FUSE				
6.1	Fuse base each rating	Nos.	10		
6.2	Fuse link each rating	Nos.	10		
7	PUSH BUTTONS				
7.1	Actuator contacts	Nos.	5		
7.2	Element	Nos.	5		
8	INDICATING LAMP (CLUSTER LED) - Each Type	Nos.	25		
9	OTHERS				
9.1	AC Voltmeter (0-415V)	Nos.	1		
9.2	DC Ammeter (0-220V)	Nos.	1		
				TOTAL	

ANNEXURE-F

LIST OF TOOLS & TACKLES

S.No.	ITEM / COMPONENT	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE	REMARKS
1	ACB RACKING HANDLE	Nos	5			
2	MODULE RACKING HANDLE	Nos	5			
3	FUSE PULLERS	Nos	5			
4	TROLLEY FOR ACB HANDLING	Nos	2			

COMMISSIONING CHARGES FOR NUMERICAL RELAYS AT SITE

SL.NO.	DETAILS	QUANTITY		UNIT PRICE	TOTAL PRICE	REMARKS
1	LUMP SUM ALL INCLUSIVE CHARGES PER VISIT FOR SERVICE ENGINEER (EXCEPT DAILY CHARGES)	VISITS	1			
2	LUMP SUM ALL INCLUSIVE PER NUMERICAL RELAY COMMISSIONING CHARGES	NOS	50			

NOTES:

1) AMOUNT PAYABLE FOR SERVICE ENGINEER PER VISIT TO SITE = VISIT CHARGES AS PER SL. NO. 1 ABOVE + (PER NUMERICAL RELAY COMMISSIONING CHARGES AS PER SL. NO. 2 ABOVE X NO. OF RELAYS) (TO BE CERTIFIED BY BHEL SITE)

SITE MODIFICATION CHARGES

SL.NO.	DETAILS	QUANTITY		UNIT PRICE	TOTAL PRICE	REMARKS
1	LUMP SUM ALL INCLUSIVE CHARGES PER VISIT FOR SKILLED TECHNICIAN (EXCEPT DAILY CHARGES)	VISITS	1			
2	LUMP SUM ALL INCLUSIVE DAILY CHARGES FOR SKILLED TECHNICIAN	DAYS	4			
3	LUMP SUM ALL INCLUSIVE CHARGES PER VISIT FOR SERVICE ENGINEER (EXCEPT DAILY CHARGES)	VISITS	1			
4	LUMP SUM ALL INCLUSIVE DAILY CHARGES FOR SERVICE ENGINEER	DAYS	4			
				TOTAL		

NOTES:

1) AMOUNT PAYABLE FOR SKILLED TECHNICIAN PER VISIT TO SITE = VISIT CHARGES AS PER SL. NO. 1 ABOVE + (DAILY CHARGES AS PER SL. NO. 2 ABOVE X NO. OF DAYS AT SITE) (TO BE CERTIFIED BY BHEL SITE)

2) AMOUNT PAYABLE FOR SERVICE ENGINEER PER VISIT TO SITE = VISIT CHARGES AS PER SL. NO. 3 ABOVE + (DAILY CHARGES AS PER SL. NO. 4 ABOVE X NO. OF DAYS AT SITE) (TO BE CERTIFIED BY BHEL SITE)

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
1	INCOMING FEEDER UNIT		
a)	ACB Incomer to PCC/PMCC from Trafo. - Module Type DAET (I/C)		
	630A		
	1000A		
	1600A		
	2000A		
	2500A		
	3000A		
	3500A		
	4000A		
b)	ACB Incomer to MCC - Module Type DAE/ DAEN/ AE (I/C)		
	630A		
	800A		
	1000A		
	1600A		
	2500A		
	3200A		
c)	MCCB Incomer for MCC / ACDB – Module Type EM3 (I/C)		
	200A – Fixed Type		
	125A – Fixed Type		
	200A – Fixed Type		
	250A – Fixed Type		
	400A – Fixed Type		
	630A – Fixed Type		
	125A – Drawout Type		
	200A – Drawout Type		
	200A – Drawout Type		
	250A – Drawout Type		
	400A – Drawout Type		
	630A – Drawout Type		
d)	SFU Incomer for MCC / ACDB – Module Type E3 (I/C)		
	Upto 63A – Fixed Type		
	Upto 63A – Drawout Type		
e)	220V DCDB Incomer from charger - Module type CH (I/C)		
	150A – CH Fixed Type		
	200A – CH Fixed Type		
	400A – CH Fixed Type		
	630A – CH Fixed Type		
	800A – CH Fixed Type		
	1250A – CH Fixed Type		
	150A – CH Drawout Type		
	200A – CH Drawout Type		
	400A – CH Drawout Type		
	630A – CH Drawout Type		
	800A – CH Drawout Type		
	1250A – CH Drawout Type		
f)	220V DCDB Incomer from battery - Module type DB (I/C)		
	150A – DB Fixed Type		
	200A – DB Fixed Type		
	400A – DB Fixed Type		
	630A – DB Fixed Type		
	800A – DB Fixed Type		
	1250A – DB Fixed Type		
	150A – DB Drawout Type		
	200A – DB Drawout Type		
	400A – DB Drawout Type		
	630A – DB Drawout Type		
	800A – DB Drawout Type		
	1250A – DB Drawout Type		
g)	220V DC Fuse DB Incomer from DCDB - Module type H2		
	32A		
	50A		
	63A		
h)	AC MCCB DB Incomer– Module Type H3		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	32A		
	63A		
	125A		
i)	ACB Incomer to Emergency Board - Module Type DAEG/ DAEGN (I/C)		
	1600A		
2	BUSCOUPLER UNIT		
a)	ACB Buscoupler to PCC/PMCC/MCC from Trafo. - Module Type DAET/ DAE (B/C)		
	630A		
	800A		
	1000A		
	1600A		
	2000A		
	2500A		
	3000A		
	4000A		
b)	MCCB Buscoupler for MCC / ACDB – Module Type EM3 (B/C)		
	Upto 63A – Fixed Type		
	125A – Fixed Type		
	200A – Fixed Type		
	200A – Fixed Type		
	250A – Fixed Type		
	400A – Fixed Type		
	630A – Fixed Type		
	Upto 63A – Drawout Type		
	125A – Drawout Type		
	200A – Drawout Type		
	200A – Drawout Type		
	250A – Drawout Type		
	400A – Drawout Type		
	630A – Drawout Type		
c)	220V DCDB buscoupler - Module Type - DC		
	150A – DC Fixed Type		
	200A – DC Fixed Type		
	400A – DC Fixed Type		
	630A – DC Fixed Type		
	800A – DC Fixed Type		
	1250A – DC Fixed Type		
	150A – DC Drawout Type		
	200A – DC Drawout Type		
	400A – DC Drawout Type		
	630A – DC Drawout Type		
	800A – DC Drawout Type		
	1250A – DC Drawout Type		
d)	220V DCDB TIE - Module Type - HD		
	150A – HD Fixed Type		
	200A – HD Fixed Type		
	400A – HD Fixed Type		
	630A – HD Fixed Type		
	800A – HD Fixed Type		
	1250A – HD Fixed Type		
	150A – HD Drawout Type		
	200A – HD Drawout Type		
	400A – HD Drawout Type		
	630A – HD Drawout Type		
	800A – HD Drawout Type		
	1250A – HD Drawout Type		
e)	ACB BUSCOUPLER to Emergency Board - Module Type DAEG (B/C)		
	1600A		
3	Outgoing ACB supply feeder - Module Type DAE/DAE-TIE (O/G)		
	630A		
	800A		
	1000A		
	1600A		
	3000A		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
4	Outgoing ACB motor feeder - Module Type DM/PM (controlled from DDCMIS/PLC)		
	90.1 - 200KW		
5.1	DOL Motor Starter - Unidirectional Drive(SFU CONTROLLED) - Drawout Type		
a)	Module Type K2 (Controlled from LPBS)		
	Upto 5.5KW		
	5.6 - 7.0KW		
	7.1 - 13KW		
	13.1 - 24KW		
	24.1 - 29.9KW		
b)	Module Type K21 (Controlled from LPBS)		
	30.0 - 37.0KW		
	37.1 - 40KW		
	40.1 - 50.0KW		
	50.1 - 75KW		
	75.1 - 90KW		
	90.1 - 110KW		
c)	Module Type K3 (Controlled from LCP)		
	Upto 5.5KW		
	5.6 - 7.0KW		
	7.1 - 13KW		
	13.1 - 24KW		
	24.1 - 29.9KW		
d)	Module Type K31 (Controlled from LCP)		
	30.0 - 37.0KW		
	37.1 - 40KW		
	40.1 - 50.0KW		
	50.1 - 75KW		
	75.1 - 90KW		
	90.1 - 110KW		
e)	Module Type DK2/PK2/AK2 (Controlled from DDCMIS/PLC/ATRS)		
	Upto 5.5KW		
	5.6 - 7.0KW		
	7.1 - 13KW		
	13.1 - 24KW		
	24.1 - 29.9KW		
f)	Module Type DK21/PK21/AK21 (Controlled from DDCMIS/PLC/ATRS)		
	30.0 - 37.0KW		
	37.1 - 40KW		
	40.1 - 50.0KW		
	50.1 - 75KW		
	75.1 - 90KW		
	90.1 - 110KW		
g)	Module Type DK2E/PK2E/AK2E (Controlled from DDCMIS/PLC/ATRS)		
	Upto 5.5KW		
	5.6 - 7.0KW		
	7.1 - 13KW		
	13.1 - 24KW		
	24.1 - 29.9KW		
h)	Module Type DK21E/PK21E/AK21E (Controlled from DDCMIS/PLC/ATRS)		
	30.0 - 37.0KW		
	37.1 - 40KW		
	40.1 - 49.9KW		
	50 - 75KW		
	75.1 - 90KW		
	90.1 - 110KW		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
6.1	RDOL Motor Starter – Bidirectional Drive(SFU CONTROLLED) Drawout Type		
a)	Module Type DN1/ PN1/ AN1 (Controlled from DDCMIS/PLC/ATRS)		
	Upto 5.5KW		
	5.6 - 7.0KW		
	7.1 - 13KW		
	13.1 - 24KW		
	24.1 – 29.9KW		
a)	Module Type DN21/ PN21/ AN21 (Controlled from DDCMIS/PLC/ATRS)		
	30.0 - 37.0KW		
	37.1 - 40KW		
	40.1 - 49.9KW		
	50 - 75KW		
	75.1 - 90KW		
7	Outgoing MCCB/ SFU controlled feeders		
a)	Outgoing SFU controlled supply feeder - Module Type E3 (O/G)		
	upto 10A - Fixed type		
	16A - Fixed type		
	25A - Fixed type		
	32A - Fixed type		
	63A - Fixed type		
	125A - Fixed type		
	160A - Fixed type		
	200A - Fixed type		
	250A - Fixed type		
	400A - Fixed type		
	600A - Fixed type		
	upto 10A - Drawout type		
	16A - Drawout type		
	25A - Drawout type		
	32A - Drawout type		
	63A - Drawout type		
	125A - Drawout type		
	160A - Drawout type		
	200A - Drawout type		
	250A - Drawout type		
	400A - Drawout type		
	600A - Drawout type		
b)	Outgoing MCCB controlled supply feeder - Module Type E3 (O/G)		
	16A - Fixed type		
	32A - Fixed type		
	63A - Fixed type		
	125A - Fixed type		
	160A - Fixed type		
	200A - Fixed type		
	250A - Fixed type		
	400A - Fixed type		
	600A - Fixed type		
	16A - Drawout type		
	32A - Drawout type		
	63A - Drawout type		
	125A - Drawout type		
	160A - Drawout type		
	200A - Drawout type		
	250A - Drawout type		
	400A - Drawout type		
	600A - Drawout type		
c)	Double pole SFU controlled 1-ph feeder - E1 (O/G)		
	10A - Fixed type		
	16A - Fixed type		
	25A - Fixed type		
	32A - Fixed type		
	63A - Fixed type		
	10A - Drawout type		
	16A - Drawout type		
	25A - Drawout type		
	32A - Drawout type		
	63A - Drawout type		
d)	Double pole MCCB controlled 1-ph feeder - E1 (O/G)		
	16A - Fixed type		
	32A - Fixed type		
	63A - Fixed type		
	125A - Fixed type		
	16A - Drawout type		
	32A - Drawout type		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	63A - Drawout type		
	125A - Drawout type		
e)	1-Ph SFU controlled outgoing contactor feeder (EA1)		
	10A - Fixed type		
	16A - Fixed type		
	25A - Fixed type		
	32A - Fixed type		
	63A - Fixed type		
	10A - Drawout type		
	16A - Drawout type		
	25A - Drawout type		
	32A - Drawout type		
	63A - Drawout type		
f)	1-Ph MCCB controlled outgoing contactor feeder (EA1)		
	16A - Fixed type		
	32A - Fixed type		
	63A - Fixed type		
	16A - Drawout type		
	32A - Drawout type		
	63A - Drawout type		
g)	3-Ph SFU controlled outgoing contactor feeder (EA3)		
	10A - Fixed type		
	16A - Fixed type		
	25A - Fixed type		
	32A - Fixed type		
	63A - Fixed type		
	125A - Fixed type		
	200A - Fixed type		
	250A - Fixed type		
	400A - Fixed type		
	600A - Fixed type		
	10A - Drawout type		
	16A - Drawout type		
	25A - Drawout type		
	32A - Drawout type		
	63A - Drawout type		
	125A - Drawout type		
	200A - Drawout type		
	250A - Drawout type		
	400A - Drawout type		
	600A - Drawout type		
h)	3-Ph MCCB controlled outgoing contactor feeder (EA3)		
	16A - Fixed type		
	32A - Fixed type		
	63A - Fixed type		
	125A - Fixed type		
	200A - Fixed type		
	250A - Fixed type		
	400A - Fixed type		
	600A - Fixed type		
	16A - Drawout type		
	32A - Drawout type		
	63A - Drawout type		
	125A - Drawout type		
	200A - Drawout type		
	250A - Drawout type		
	400A - Drawout type		
	600A - Drawout type		
i)	3-Ph SFU controlled Contactor Changeover Between Two In Coming Supplies Module Type CC		
	16A - Fixed type		
	32A - Fixed type		
	63A - Fixed type		
	125A - Fixed type		
	200A - Fixed type		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	250A - Fixed type		
	400A - Fixed type		
	600A - Fixed type		
	16A - Drawout type		
	32A - Drawout type		
	63A - Drawout type		
	125A - Drawout type		
	200A - Drawout type		
	250A - Drawout type		
	400A - Drawout type		
	600A - Drawout type		
8	1-Ph MCB controlled outgoing feeder (H1) from AC MCCB DB		
	10A		
	16A		
9	Outgoing Switch-fuse feeders		
a)	220V DC Outgoing SFU feeder (X)		
	2A - Fixed type		
	4A - Fixed type		
	6A - Fixed type		
	10A - Fixed type		
	16A - Fixed type		
	25A - Fixed type		
	32A - Fixed type		
	50A - Fixed type		
	63A - Fixed type		
	100A - Fixed type		
	125A - Fixed type		
	200A - Fixed type		
	250A - Fixed type		
	400A - Fixed type		
	500A - Fixed type		
	630A - Fixed type		
	2A - Drawout type		
	4A - Drawout type		
	6A - Drawout type		
	10A - Drawout type		
	16A - Drawout type		
	25A - Drawout type		
	32A - Drawout type		
	50A - Drawout type		
	63A - Drawout type		
	100A - Drawout type		
	125A - Drawout type		
	200A - Drawout type		
	250A - Drawout type		
	400A - Drawout type		
	500A - Drawout type		
	630A - Drawout type		
10	Common Auxiliary Module		
a)	PT module		
i	Bus PT module for PCC/PMCC-G1 Type		
ii	Bus PT module for Emergency MCC-G2 Type		
iii	Bus PT DCDB-S Type		
iv	Bus PT module for MCC/ACDB-VM Type		
b)	Space heater and Power Socket - TT		
c.1)	110V AC control supply module – Type CS (consisting of 415/110V control Trafo.)		
	1KVA		
	2KVA		
	2.5KVA		
	3KVA		
	5KVA		
	7.5KVA		
	10KVA		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
c.2)	240 V AC control supply module – type CS (consisting of 415/240V control Trafo.)		
	1KVA		
	2KVA		
	2.5KVA		
	3KVA		
	5KVA		
	7.5KVA		
	10KVA		
d.1)	110V AC control supply module – Type CS-A (consisting of 415/110V control Trafo.)		
	1KVA		
	2KVA		
	2.5KVA		
	3KVA		
	5KVA		
	7.5KVA		
	10KVA		
d.2)	240 V AC control supply module – type CS-A (consisting of 415/240V control Trafo.)		
	1KVA		
	2KVA		
	2.5KVA		
	3KVA		
	5KVA		
	7.5KVA		
	10KVA		
e)	240V AC motor space heater module		
f)	220V DC supply module (for receiving 220V DC supply)		
g)	24 V winding heating module		
h)	Alarm module		
i)	Test supply module		
J.1)	240 V AC Panel Space hetaing supply module – type SH (consisting of 415/240V control Trafo.)		
	1KVA		
	2KVA		
	2.5KVA		
	3KVA		
	5KVA		
	7.5KVA		
	10KVA		
J.2)	240 V AC Panel Space hetaing supply module – type SH-A (consisting of 415/240V control Trafo.)		
	1KVA		
	2KVA		
	2.5KVA		
	3KVA		
	5KVA		
	7.5KVA		
	10KVA		
11	Empty Panel with Horizontal & Vertical Busbar, Support & Auxiliary Busbar		
a)	MCC Panel (Double Front Drawout Type)		
	250 / 250A		
	400 / 400A		
	630 / 630A		
	800 / 630A		
	1000 / 630A		
	1600 / 630A		
	2000 / 630A		
	2500 / 630A		
	3000 / 630A		
	4000 / 630A		
b)	MCC Panel (Double Front Fixed Type)		
	250 / 250A		
	400 / 400A		
	630 / 630A		
	800 / 630A		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	1000 / 630A		
	1600 / 630A		
	2000 / 630A		
	2500 / 630A		
	3000 / 630A		
	4000 / 630A		
c)	220V DCDB Panel (Double Front Fixed type)		
	UPTO 630A (with 630A VBB)		
	1000A (with 630A VBB)		
	1600A (with 630A VBB)		
d)	220V DCDB Panel (Double Front Drawout type)		
	UPTO 630A (with 630A VBB)		
	1000A (with 630A VBB)		
	1600A (with 630A VBB)		
12	Empty Panel With Horizontal & Vertical Busbar, Support & Auxiliary Busbar		
a)	PCC Panel (Single Front Drawout Type)		
	1600 / 1600A		
	2000 / 2000A		
	2500 / 2500A		
	3000 / 3000A		
	4000 / 4000A		
b)	MCC Panel (Single Front Drawout Type)		
	250 / 250A		
	400 / 400A		
	630 / 630A		
	800 / 630A		
	1000 / 630A		
	1600 / 630A		
	2000 / 630A		
	2500 / 630A		
	3000 / 630A		
	4000 / 630A		
c)	MCC Panel (Single Front Fixed Type)		
	250 / 250A		
	400 / 400A		
	630 / 630A		
	800 / 630A		
	1000 / 630A		
	1600 / 630A		
	2000 / 630A		
	2500 / 630A		
	3000 / 630A		
	4000 / 630A		
d)	220V DCDB Panel (Single Front Fixed Type)		
	UPTO 630A (with 630A VBB)		
	1000A (with 630A VBB)		
	1600A (with 630A VBB)		
e)	220V DCDB Panel (Single Front Fixed Type)		
	UPTO 630A (with 630A VBB)		
	1000A (with 630A VBB)		
	1600A (with 630A VBB)		
13	ACB Panel with Horizontal & Vertical Busbar, Support & Auxiliary Busbar		
	630 / 630A		
	800 / 630A		
	800 / 800A		
	1000 / 630A		
	1000 / 800A		
	1000 / 1000A		
	1600 / 630A		
	1600 / 800A		
	1600 / 1000A		
	1600 / 1600A		
	2000 / 630A		
	2000 / 800A		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	2000 / 1000A		
	2000 / 1600A		
	2000 / 2000A		
	2500 / 630A		
	2500 / 800A		
	2500 / 1000A		
	2500 / 1600A		
	2500 / 2000A		
	2500 / 2500A		
	3000 / 630A		
	3000 / 800A		
	3000 / 1000A		
	3000 / 1600A		
	3000 / 2000A		
	3000 / 2500A		
	3000 / 3000A		
	4000 / 630A		
	4000 / 800A		
	4000 / 1000A		
	4000 / 1600A		
	4000 / 2000A		
	4000 / 2500A		
	4000 / 3000A		
	4000 / 4000A		
14	Dummy Panel		
	UPTO 630A		
	800A		
	1000A		
	1600A		
	2000A		
	2500A		
	3000A		
	4000A		
15	Unit Prices For Circuit Components		
a)	Air Circuit Breaker without releases		
	630A MDO		
	800A MDO		
	1000A MDO		
	630A ACB, 3P, EDO, AC		
	800A ACB, 3P, EDO, AC		
	1000A ACB, 3P, EDO, AC		
	4000A ACB, 3P, EDO, AC		
	3200A ACB, 3P, EDO, AC		
	2500A ACB, 3P, EDO, AC		
	2000A ACB, 3P, EDO, AC		
	1600A ACB, 3P, EDO, AC		
	1250A ACB, 3P, EDO, AC		
	1250A ACB, 2P, MDO, DC		
b)	MCCB, 2NO+2NC AUX, FSC		
	16A		
	25A		
	32A		
	63A		
	80A		
	115A		
	150A		
	185A		
	265A		
	315A		
	400A		
	630A		
c)	MCCB, 2NO+2NC AUX, ASC		
	16A		
	25A		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	32A		
	63A		
	80A		
	115A		
	150A		
	185A		
	265A		
	315A		
	400A		
	630A		
d)	MCCB with LSIG release		
	200A		
	250A		
	300A		
	350A		
	400A		
	630A		
e)	MCCB - Motorized with LSIG release		
	200A		
	250A		
	300A		
	350A		
	400A		
	630A		
f)	POWER FUSE LINK FOR SFU (AC) - TPN		
	Upto 16A		
	25A		
	32A		
	63A		
	125A		
	250A		
	400A		
	630A		
g)	POWER FUSE LINK FOR SFU (DC) - DP		
	Upto 16A		
	25A		
	40A		
	50A		
	60A		
	80A		
	100A		
	200A		
	300A		
	400A		
	630A		
h)	SFU WITHOUT POWER FUSE LINK (AC) - TPN		
	Upto 16A		
	25A		
	32A		
	63A		
	125A		
	250A		
	400A		
	630A		
i)	SFU WITHOUT POWER FUSE LINK (DC) - DP		
	Upto 16A		
	25A		
	40A		
	50A		
	60A		
	80A		
	100A		
	200A		
	300A		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	400A		
	630A		
j)	HRC Fuse Links (Offset tag Type)		
	Upto 10A		
	16A		
	25A		
	32A		
	50A		
	63A		
k)	HRC Fuse DIN Type (Blade Contact)		
	Upto 10A		
	16A		
	20A		
	32A		
	36A		
	50A		
	63A		
	80A		
	100A		
	125A		
	160A		
	200A		
	250A		
	315A		
	400A		
	Control Fuse Link		
l)	Power contactor (AC)		
	16A		
	25A		
	32A		
	63A		
	80A		
	115A		
	150A		
	185A		
	265A		
	315A		
	400A		
m)	Power contactor (DC)		
	16A		
	25A		
	32A		
	63A		
	80A		
	115A		
	150A		
	185A		
	265A		
	400A		
n)	Fuse Base		
	UPTO 20A		
	32A		
	50/63A		
	100A		
	250A		
	400A		
	630A		
o)	Auxiliary contactor AC/DC		
i)	AC Aux. contactor		
	2NO + 2NC		
	3NO + 3NC		
	4NO + 4NC		
	6NO + 6NC		
ii)	DC Aux. contactor		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	2NO + 2NC		
	3NO + 3NC		
	4NO + 4NC		
	6NO + 6NC		
p)	Protection Relay		
	VAGM 23		
	CTU 12		
	CTU 32		
	VTU 11		
	VAG 11		
	VAA 11		
	VAJHM 13		
	VAJHM 23		
	CDGM-12		
	CAG 12		
	CAG 34		
	CCUM 21		
	CDG 11		
	CDG 31		
	CDG 61		
	VDG 14		
	CDV 62		
	CAG 14		
	VAX 31		
	CAG 37		
	CAEM-21		
	VAG-21		
	VAJC-11		
	CTMM-501		
	MOTPRO		
	VAA21		
	VTU12		
	VTIG		
	VTU21		
	NUMERICAL RELAY FOR PROTECTION, T/C SUPERVISION, LOGIC, METERING FUNCTION & WITH CHECK SYNCHRONIZATION, REF PROTECTION, FUSE FAILURE, ENERGY METERING, OVER LOAD PROTECTION, 50, 50N, 51, 51N, 27, 98, 86, 25, 95, 30A, 30B, 64R		
	SEF NUMERICAL RELAY		
	NUMERICAL RELAY FOR PROTECTION, T/C SUPERVISION, LOGIC, METERING FUNCTION & WITH CHECK SYNCHRONIZATION, FUSE FAILURE, ENERGY METERING, OVER LOAD PROTECTION 50, 50N, 51, 51N, 27, 98, 86, 25, 95, 30A, 30B		
	NUMERICAL RELAY FOR PROTECTION, T/C SUPERVISION, LOGIC, METERING FUNCTION & WITH CHECK SYNCHRONIZATION, FUSE FAILURE, 50, 50N, 51, 51N, 27, 98, 86, 25, 95, 30A, 30B		
	NUMERICAL RELAY FOR PROTECTION, T/C SUPERVISION, LOGIC, METERING FUNCTION & WITH CHECK SYNCHRONIZATION, FUSE FAILURE, ENERGY METERING, OVER LOAD PROTECTION 50, 50N, 51, 51N, 27, 98, 86, 25, 95, 30A, 30B, DG PROTECTION (Like Neutral Under-voltage-27N, Power Direction / Reverse Power (Islanding)-32, Negative Phase Sequence Over-current (Phase unbalance, reverse phase sequence) -46, , Negative Sequence Voltage -47, Ground Over-voltage trip or ground over-current trip-51G, Instantaneous Over-voltage trip (ferro-resonance)-59, Over-voltage trip-59T, Neutral over-voltage-59N, Over/Under Frequency trip-81O/ 81L etc.)		
	NUMERICAL RELAY FOR PROTECTION, T/C SUPERVISION, LOGIC, METERING FUNCTION & FUSE FAILURE, OVER LOAD PROTECTION 50, 50N, 51, 51N, 27, 98, 86, 95, 30A, 30B		
	NUMERICAL RELAY FOR PROTECTION, T/C SUPERVISION-95, LOGIC, METERING FUNCTION & FUSE FAILURE-98, OVER LOAD PROTECTION, LOCKED ROTOR PROTECTION-14, RESTART INHIBIT PROTECTION-49, NEGATIVE SEQUENCE PROTECTION-46, 50, 50N, 51, 51N, 27, 86, 30A, 30B		
	Communicable type Numerical relay for O/C, E/F, TC Supervision on IEC-61850 protocol		
	Communicable type Numerical relay for O/C, E/F, Check Synchronization, TC Supervision on IEC-61850 protocol		
	Communicable type Numerical relay for Voltage control O/C, 3Phase O/C, Reverse power, Differential, Neutral Displacement, E/F, U/V, O/V protection, Check Synchronization, TC Supervision on IEC-61850 protocol		
	Communicable type Numerical relay for Under voltage, Over voltage etc. on IEC-61850 protocol		
	Communicable type Numerical relay for E/F protection for DCDB on IEC-61850 protocol		
	Communicable type Numerical relay for composite motor protection including TC Supervision on IEC-61850 protocol		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	Communicable type Numerical relay for Neutral Displacement on IEC-61850 protocol		
	Communicable type Numerical relay for O/C, E/F, TC Supervision on Modbus protocol		
	Communicable type Numerical relay for O/C, E/F, Check Synchronization, TC Supervision on Modbus protocol		
	Communicable type Numerical relay for Voltage control O/C, 3Phase O/C, Reverse power, Differential, Neutral Displacement, E/F, U/V, O/V protection, Check Synchronization, TC Supervision on Modbus protocol		
	Communicable type Numerical relay for Under voltage, Over voltage etc. on Modbus protocol		
	Communicable type Numerical relay for E/F protection for DCDB on Modbus protocol		
	Communicable type Numerical relay for composite motor protection including TC Supervision on Modbus protocol		
	Communicable type Numerical relay for Neutral Displacement on Modbus protocol		
	Numerical Check synchronising Relay		
	Check synchronising Relay Type-SKE11 or better		
	Guard Relay		
	NUMERICAL RELAY Over current and Earth fault		
	BATTERY EARTH FAULT RELAY, 1-7mA, NOMINAL VOLTAGE-220V DC, 1DV, 2NO S/R, FLUSH		
	OVERLOAD RELAY, NOMINAL VOLTAGE-220V DC, O/V VLTAGE SETTING-110%, 1/4NV, 1NO+1NC S/R		
	UNDER VOLTAGE RELAY, NOMINAL VOLTAGE-220V DC, U/V SETTING-80%, AUX.-240V AC, 1/2NH, 1NO+2NC S/R		
	JAMING RELAY - CAG17		
q)	Bimetal Thermal O/L Relays		
i)	Thermal O/L relay with SPP - OLR		
	Upto 5.5KW		
	5.6 to 11KW		
	11.1 to 22KW		
	22.1 to 45KW		
	45.1 to 75KW		
	75 to 110KW		
ii)	Heavy Duty Thermal O/L relay with SPP - OLR		
	Upto 5.5KW		
	5.6 to 11KW		
	11.1 to 22KW		
	22.1 to 45KW		
	45.1 to 75KW		
	75 to 110KW		
r)	Timer (DC)		
	ON DELAY TIMER, 0.5-5SEC., 220V DC, 2NO+2NC		
	ON DELAY TIMER, 1.0-10SEC. 220V DC, 2NO+2NC		
	240VAC MTR RESTART CONTROL TIMER (.2-60SECS)		
	240VAC ON DELAY TIMER(1-10SECNS)WITH 1NO		
	220VDC ON DELAY TIMER(.5-5SECS) WITH 1NO		
	220VDC ON DELAY TIMER(0.5-5SECS)WITH 3NO		
	220VDC ON DELAY TIMER(1-10SECS) WITH 3NO		
s)	Meter		
	AC ammeter (Digital)		
	AC ammeter (Analog) linear scale		
	AC ammeter (Analog) compressed scale		
	DC ammeter (Digital)		
	DC ammeter (Analog)		
	AC voltmeter (Digital)		
	DC voltmeter (Analog)		
	Wattmeter (3 Phase)		
	Wattmeter (1 Phase)		
	TVM meter		
	DIGITAL ENERGY METER		
	Frequency meter		
	Synchroscope		
	Differential Voltmeter		
	Differential Frequency meter		
	Multifunction digital Energy meter with RS485 Port (0.2 Acc. Class)		
	Multifunction digital Energy meter with RS485 Port (0.5 Acc. Class)		
	Multifunction digital Energy meter with RS485 Port (1.0 Acc. Class)		
t)	Single Phase Preventor Relay		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
u)	MCB		
	6A, 4P 415V AC		
	6A DP, 240V AC		
	10A DP, 240V AC		
	16A DP, 240V AC		
	32A DP, 240V AC		
	6A DP, 110V AC		
	10A DP, 110V AC		
	16A DP, 110V AC		
	32A DP, 110V AC		
	16A DP, 220V DC		
	6A DP, 220V DC		
	6A DP, 240V AC		
	10A SP, 240V AC		
	16A SP, 240V AC		
	32A SP, 240V AC		
	6A SP, 110V AC		
	10A SP, 110V AC		
	16A SP, 110V AC		
	32A SP, 110V AC		
	16A SP, 220V DC		
	6A SP, 220V DC		
v)	SWITCH & PUSH BUTTON		
	BREAKER CONTROL SWITCH, 16A,220V DC, 2CLOSE+2TRIP		
	DC ISOLATING SWITCH 16A,220V DC, DP, BASE MTG.		
	16A,240V AC SELECTOR SWITCH 3WAY, 4POLE, FLUSH MTG		
	25A,240V AC SELECTOR SWITCH 3WAY, 4POLE, FLUSH MTG		
	16A,240V AC SELECTOR SWITCH 2WAY, 2POLE, FLUSH MTG		
	NORMAL/ TRIAL SEL. SWITCH, 2POLE , 2WAY, 10A 240V AC, FLUSH MTG,		
	MCC/ NORMAL/ TRIAL SEL. SWITCH, 2POLE ,3WAY, 10A 240V AC, FLUSH MTG		
	SWGR/ REMOTE SEL. SWITCH 3POLE 2WAY,16A 220V DC, FLUSH MTG		
	SWGR/ NORMAL/ TRIAL SEL. SWITCH, 3POLE, 3WAY, 16A 220V DC, FLUSH MTG.		
	NORMAL/ TRIAL SEL. SWITCH, 2POLE , 2WAY, 10A 240V AC, FLUSH MTG, LOCKABEL TYPE		
	MCC/ NORMAL/ TRIAL SEL. SWITCH, 2POLE ,3WAY, 10A 240V AC, FLUSH MTG, LOCKABEL TYPE		
	SWGR/ REMOTE SEL. SWITCH 3POLE 2WAY,16A 220V DC, FLUSH MTG.LOCKABLE TYPE		
	SWGR/ NORMAL/ TRIAL SEL. SWITCH, 3POLE, 3WAY, 16A 220V DC, FLUSH MTG., LOCKABLE TYPE		
	AMMETER SELECTOR SWITCH		
	VOLTMETER SELECTOR SWITCH		
	TOGGLE SWITCH 5A, 240V AC		
	AC SWITCH SPST-5A,240V AC		
	10A, 220V DC SWITCH		
	Door Limit switch		
	Ammeter selector switch		
	Voltmeter selector switch		
	Synchronisation selector switch		
	Trip selector switch		
	Push Button		
	2NO + 2NC Shrouded		
	1NO + 1NC Shrouded		
	2NO + 2NC Mushroom head stayput		
	2NO + 2NC Lockable type		
w)	Indicating Lamp Assembly (LED Type)		
	240V AC-GREEN		
	240V AC-RED		
	240V AC- AMBER		
	110V AC-GREEN		
	110V AC-RED		
	110V AC- AMBER		
	220V DC-WHITE		
	220V DC-RED		
	220V DC-GREEN		
	220V DC-BLUE		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	220V DC- AMBER		
	63.5V AC-RED		
	63.5V AC-YELLOW		
	63.5V AC-BLUE		
x)	CT		
i)	Metering CT		
	Upto 75/1A		
	100/1A		
	125/1A		
	150/1A		
	200/1A		
	250/1A		
	300/1A		
	400/1A		
	500/1A		
	630/1A		
	800/1A		
	1000/1A		
	1250/1A		
	1600/1A		
	2000/1A		
	2500/1A		
	3000/1A		
	4000/1A		
ii)	Protection CT (5P20)		
	Upto 75/1A		
	100/1A		
	125/1A		
	150/1A		
	200/1A		
	250/1A		
	300/1A		
	400/1A		
	500/1A		
	630/1A		
	800/1A		
	1000/1A		
	1250/1A		
	1600/1A		
	2000/1A		
	2500/1A		
	3000/1A		
	4000/1A		
	630/5A		
	800/5A		
	1000/5A		
	1250/5A		
	1600/5A		
	2000/5A		
	2500/5A		
	3000/5A		
	4000/5A		
iii)	PS Class CT		
	1600/1A		
	2500/1A		
	3000/1A		
	4000/1A		
	1600/5A		
	2500/5A		
	3000/5A		
	4000/5A		
y)	Voltage Transformer		
i)	415/Ö3 : 110/Ö3V, 1ph, 50VA		
ii)	415/Ö3 : 110/Ö3V, 1ph, 100VA		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
iii)	415/Ö3 : 240/Ö3V, 1ph, 50VA		
iv)	415/Ö3 : 240/Ö3V, 1ph, 100VA		
z)	Toggle switch (16A)		
aa)	Secondary Isolating Contact Block		
ab)	Control Terminal (Fixed)		
ac)	Thermostat		
ad)	CONTROL TRANSFORMER		
	415/240V,CL-E, 1 KVA		
	415/240V,CL-E, 2KVA		
	415/240V,CL-E, 2.5KVA		
	415/240V,CL-E, 3KVA		
	415/240V,CL-E, 5KVA		
	415/240V,CL-E, 10KVA		
	415/110V,CL-E, 1 KVA		
	415/110V,CL-E, 2KVA		
	415/110V,CL-E, 2.5KVA		
	415/110V,CL-E, 3KVA		
	415/110V,CL-E, 5KVA		
	415/110V,CL-E, 10KVA		
ac)	4-20mA Dual o/p, Aux sup 220V DC, 1A, Current Transducer		
	4-20mA Dual o/p, Aux sup 240V AC, 1A, Current Transducer		
	4-20mA Dual o/p, Aux sup 110V AC, 1A, Current Transducer		
	4-20mA Dual o/p, Aux sup 220V DC, VoltageTransducer, PTR 415/110V		
	4-20mA Dual o/p, Aux sup 240V AC, VoltageTransducer, PTR 415/110V		
	4-20mA Dual o/p, Aux sup 110V AC, VoltageTransducer, PTR 415/110V		
	4-20mA Dual o/p, Aux sup 220V DC, FrequencyTransducer, PTR 415/110V		
	4-20mA Dual o/p, Aux sup 220V DC, Input 0-75mV DC, Current Transducer-DC		
	4-20mA Dual o/p, Aux sup 240V AC, Input Voltage 0-220V DC, Voltage Transducer-DC		
ad)	4-20mA Dual Output kW transducer		
ae)	4-20mA Dual Output kVA transducer		
af)	4-20mA Dual Output PF transducer		
ag)	4-20mA Dual Output Frequency transducer		
ah)	Interposing relay RE 302 or Eqvt with freewheeling diode & LED		
ai)	Laptop PC alongwith software & hardware		
aj)	3 PIN SOCKET - 5A, 110V AC, 3PIN		
ak)	THERMOSTATE, DIAL TYPE		
am)	SPACE HEATER		
an)	CFL WITH HOLDER		
ao)	NEUTRAL LINK		
	20A FOR CONTROL CKT. & POWER CKT. UPTO 25A MCCB RATING		
	32A FOR 50A MCCB RATING		
	63A FOR 100A & 125A MCCB RATING		
	125A FOR 250A MCCB RATING		
	250A FOR 400A & 500A MCCB RATING		
ap)	CASTLE KEY INTERLOCK FOR MCCB - 3LOCK+2KEY		
aq)	MECHANICAL INTERLOCK FOR POWER CONTACTOR		
	16A		
	25A		
	32A		
	63A		
	80A		
	115A		
	150A		
	185A		
	265A		
	315A		
	400A		
ar)	AUX. CONTACTOR		
	2NO+2NC, CV-220V DC		
	4NO, CV-220V DC		
	2NO+2NC, CV-240V AC		
	3NO+1NC, CV-240V AC		
	2NO+2NC, CV-110V AC		
	3NO+1NC, CV-110V AC		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	1NO + 1NC 240V AC		
	1NO + 1NC 110V AC		
	1NO + 1NC 220V DC		
	1NO 240V AC		
	1NO 110V AC		
	1NO 220V DC		
as)	ISOLATING TRANSFORMER-15kVA		
	ISOLATING TRANSFORMER-20kVA		
	ISOLATING TRANSFORMER-25kVA		
	ISOLATING TRANSFORMER-30kVA		
16	Foundation Frame		
a)	MCC panel		
	upto 1600A (SF)		
	2500A (SF)		
	3000A (SF)		
	4000A (SF)		
	upto 1600A (DF)		
	2500A (DF)		
	3000A (DF)		
	4000A (DF)		
b)	220V DCDB panel		
	SF		
	DF		
c)	PCC / PMCC panel		
	upto 1600A		
	2500A		
	3000A		
	4000A		
17	Connection from PMCC/MCC panel to PMCC/MCC panel		
	250A		
	400A		
	630A		
	800A		
	1000A		
	1600A		
	2500A		
	3000A		
	4000A		
18	Cable Glands & Lugs:		
a)	Single Compression Cable Glands for cable sizes:		
	2C X 2.5 Sq. mm.		
	3C X 2.5 Sq. mm.		
	5C X 2.5 Sq. mm.		
	7C X 2.5 Sq. mm.		
	12C X 2.5 Sq. mm.		
	16C X 2.5 Sq. mm.		
	2C X 10 Sq. mm.		
	2C X 16 Sq. mm.		
	2C X 25 Sq. mm.		
	2C X 35 Sq. mm.		
	2C X 50 Sq. mm.		
	2C X 70 Sq. mm.		
	2C X 95 Sq. mm.		
	3C X 2.5 Sq. mm.		
	3C X 10 Sq. mm.		
	3C X 16 Sq. mm.		
	3C X 25 Sq. mm.		
	3C X 35 Sq. mm.		
	3C X 50 Sq. mm.		
	3C X 70 Sq. mm.		
	3C X 95 Sq. mm.		
	3C X 150 Sq. mm.		
	3C X 185 Sq. mm.		
	3C X 240 Sq. mm.		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	3.5C X 25 Sq. mm.		
	3.5C X 50 Sq. mm.		
	3.5C X 70 Sq. mm.		
	3.5C X 300 Sq. mm.		
	3.5C X 240 Sq. mm.		
	3.5C X 185 Sq. mm.		
	3.5C X 95 Sq. mm.		
	4C X 16 Sq. mm.		
	4C X 35 Sq. mm.		
	1C X 400 Sq. mm.		
	1C X 630 Sq. mm.		
b)	Double Compression Cable Glands for cable sizes:		
	2C X 2.5 Sq. mm.		
	3C X 2.5 Sq. mm.		
	5C X 2.5 Sq. mm.		
	7C X 2.5 Sq. mm.		
	12C X 2.5 Sq. mm.		
	16C X 2.5 Sq. mm.		
	2C X 10 Sq. mm.		
	2C X 16 Sq. mm.		
	2C X 25 Sq. mm.		
	2C X 35 Sq. mm.		
	2C X 50 Sq. mm.		
	2C X 70 Sq. mm.		
	2C X 95 Sq. mm.		
	3C X 2.5 Sq. mm.		
	3C X 10 Sq. mm.		
	3C X 16 Sq. mm.		
	3C X 25 Sq. mm.		
	3C X 35 Sq. mm.		
	3C X 50 Sq. mm.		
	3C X 70 Sq. mm.		
	3C X 95 Sq. mm.		
	3C X 150 Sq. mm.		
	3C X 185 Sq. mm.		
	3C X 240 Sq. mm.		
	3.5C X 25 Sq. mm.		
	3.5C X 50 Sq. mm.		

FGD FOR NPGCL NABINAGAR TPP (3X660 MW)
UnPrice Schedule For Addition/Deletion

ANNEXURE-K

SL.NO.	ITEM DESCRIPTION	MODEL NO./ ITEM DESCRIPTION	UNIT PRICE (Rs.)
	3.5C X 70 Sq. mm.		
	3.5C X 300 Sq. mm.		
	3.5C X 240 Sq. mm.		
	3.5C X 185 Sq. mm.		
	3.5C X 95 Sq. mm.		
	4C X 16 Sq. mm.		
	4C X 35 Sq. mm.		
	1C X 400 Sq. mm.		
	1C X 630 Sq. mm.		
c)	Cable Lugs for sizes:		
	2.5 Sq. mm.		
	10 Sq. mm.		
	16 Sq. mm.		
	25 Sq. mm.		
	35 Sq. mm.		
	50 Sq. mm.		
	70 Sq. mm.		
	95 Sq. mm.		
	120 Sq. mm.		
	150 Sq. mm.		
	185 Sq. mm.		
	240 Sq. mm.		
	300 Sq. mm.		
	400 Sq. mm.		
	630 Sq. mm.		
19	Daily 8 hour rate deployed at site:		
	Engineer : (per day)		
20	Module Name plate		
21	Wires for Secondary wiring:		
a)	1.5 Sq. mm. per meter		
b)	2.5 Sq. mm. per meter		
c)	4.0 Sq. mm. per meter		
22	Control Terminal for Secondary wiring suitable for cable size:		
a)	0.5 Sq. mm.		
b)	1.5 Sq. mm.		
c)	2.5 Sq. mm.		
23	Unit price for following tests:		
a)	Local Push Button Station - Degree of protection test		
b)	Local motor Starter - Degree of protection test		
24	Electrical Junction Boxes (for termination of 0.5 sqmm screened control cables)		
a)	48 ways		
b)	64 ways		
c)	72 ways		
a)	96 ways		
25	ISMC channels		
a)	ISMC 75 channel per meter		
a)	ISMC 100 channel per meter		
26	ANY OTHER ITEM WHICH MAY BE REQUIRED FOR ADDITION / DELETION DURING DETAILED ENGINEERING		
27	SBMCC		
	WALL BLOWER FEEDER-0.56 KW		
	WALL BLOWER FEEDER-0.09 KW		
	LR BLOWER FEEDER-0.56 KW		
	LR BLOWER FEEDER-0.736 KW		
	AH BLOWER FEEDER-0.18 KW		
	ISOLATION BLOWER VALVE-4 KW		
28	ETHERNET SWITCH		
	8 PORT		
	16 PORT		
	24 PORT		