

3 X 660 MW NORTH KARANPURA STPP
AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)- For Non ACC Application
PRICE SCHEDULE- Foreign Bidders

Sr. No.	Item code	Item Description	Unit	Quantity	Unit C&F Price Mumbai Port (Currency)	Total C&F Price Mumbai Port (Currency)
1.0	302-11007-A	1000kVA, 11kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=6.25%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with solidly grounded LVN termination)	NO.	2		
2.0	302-11008-A	1600kVA, 11kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=8.0%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with solidly grounded LVN termination)	NO.	2		
3.0	302-11009-A	2000kVA, 11kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=10.0%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with solidly grounded LVN termination)	NO.	30		
4.0	302-11030-A	1000kVA, 3.3kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=6.25%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, LV and with solidly grounded LVN termination)	NO.	2		
5.0	302-11060-A	5000kVA, 33kV/11.5kV, 3 phase, 2 winding, outdoor, ONAN, Z=8%, Dyn11, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, LV and with solidly grounded LVN termination)	NO.	2		

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Sr. No.	Item code	Item Description	Unit	Quantity	Unit C&F Price Mumbai Port (Currency)	Total C&F Price Mumbai Port (Currency)
6.0	302-11061-A	2000kVA, 33kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=6%, Dyn11, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, LV and LVN termination)	NO.	2		
7.0	302-11062-A	7500kVA, 33kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=7%, Dyn11, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, LV and LVN termination)	NO.	2		
8.0	302-11013-A	5000kVA, 11kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=7%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with cable box type LVN termination)	NO.	2		
9.0	302-11011-A	10000kVA, 11kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=9%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with cable box type LVN termination)	NO.	2		
10.0	302-11000-B	OIL FILLED SERVICE TRANSFORMER - Mandatory Spares Details as per Annexure-I	SET	1		

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Sr. No.	Item code	Item Description	Unit	Quantity	Unit C&F Price Mumbai Port (Currency)	Total C&F Price Mumbai Port (Currency)
11.00	302-11045-A	EXTRA OIL (10%) IN SEALED NON RETURNABLE STANDARD DRUMS (Type & no. of Transformers, as per annexure-II)	LOT	1		
12.00	302-11051-A	TYPE TEST (Details as per Annexure-III)	LOT	1		
		Total (1 to 12)				

NOTES

- 1 BIDDER TO NOTE THAT THE COST OF TRANSFORMER SHALL INCLUDE THE COST OF ROUTINE TESTS AND SHALL BE CARRIED OUT ON ALL TRANSFORMERS WITHOUT ANY ADDITIONAL COST. BIDDER SHALL QUOTE ACCORDINGLY
- 2 BIDDER SHALL SUPPLY 10% EXTRA OIL AS PER THE QUOTED PRICE. QUANTITY OF EXTRA OIL SHALL BE SUBJECT TO APPROVAL DURING DETAIL ENGINEERING.
- 3 **CHARGES FOR CARRYING OUT SHORT CIRCUIT TEST SHALL BE PAYABLE BASED ON ACTUAL INVOICE FROM DESIGNATED LABORATORIES (CPRI, BHOPAL/ CPRI, BANGLORE / ERDA, VADODARA) WITH AN ADDITIONAL LUMP SUM AMOUNT OF 5% OF EX-WORKS PRICE OF TRANSFORMER BEING TESTED TO COVER HANDLING COSTS (TRANSPORTATION INSURANCE ETC)
- 4 IN CASE TYPE TESTS ARE WAIVED, THE TYPE TEST CHARGES SHALL NOT BE PAYABLE TO THE BIDDER
- 5 CHARGES FOR ALL TYPE TESTS EXCEPT SHORT CIRCUIT TEST SHALL BE CONSIDERED FOR PRICE COMPARISONS PURPOSE.
- 6 IN CASE ANY OF THE TYPE AND SPECIAL TESTS ARE REQUIRED TO BE REPEATED THE SAME SHALL BE CARRIED OUT BY THE VENDOR WITHOUT ANY COMMERCIAL / DELIVERY IMPLICATION TO BHEL.

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PRICE SCHEDULE(MANDATORY SPARE)- Foreign Bidders

ANNEXURE-I

Sr. No.	Item code	Item Description	Unit	Quantity	Unit C&F Price Mumbai Port (Currency)	Total C&F Price Mumbai Port (Currency)
1.0		HV bushing with metal parts & gaskets	NO EACH TYPE	3		
a		11.0/0.433kV, 1000KVA	NO.	3		
b		11.0/0.433kV, 1600KVA	NO.	3		
c		11.0/0.433kV, 2000KVA	NO.	3		
d		3.3/0.433kV, 1000KVA	NO.	3		
e		33.0/11.5kV, 5000KVA	NO.	3		
f		33.0/3.45kV, 2000KVA	NO.	3		
g		33.0/3.45kV, 7500KVA	NO.	3		
h		11.0/3.45kV, 5000KVA	NO.	3		
i		11.0/3.45kV, 10000KVA	NO.	3		
2.0		LV bushing with metal parts & gaskets	NO EACH TYPE	3		
2.a		11.0/0.433kV, 1000KVA	NO.	3		
2 b		11.0/0.433kV, 1600KVA	NO.	3		
2 c		11.0/0.433kV, 2000KVA	NO.	3		
2 d		3.3/0.433kV, 1000KVA	NO.	3		
2 e		33.0/11.5kV, 5000KVA	NO.	3		
2 f		33.0/3.45kV, 2000KVA	NO.	3		

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PRICE SCHEDULE(MANDATORY SPARE)- Foreign Bidders

ANNEXURE-I

Sr. No.	Item code	Item Description	Unit	Quantity	Unit C&F Price Mumbai Port (Currency)	Total C&F Price Mumbai Port (Currency)
2 g		33.0/3.45kV, 7500KVA	NO.	3		
2 h		11.0/3.45kV, 5000KVA	NO.	3		
2 i		11.0/3.45kV, 10000KVA	NO.	3		
3.0		LV Neutral bushing with metal parts & gaskets	NO EACH TYPE	1		
3a		11.0/0.433kV, 1000KVA	NO.	1		
3 b		11.0/0.433kV, 1600KVA	NO.	1		
3 c		11.0/0.433kV, 2000KVA	NO.	1		
3 d		3.3/0.433kV, 1000KVA	NO.	1		
3 e		33.0/11.5kV, 5000KVA	NO.	1		
3 f		33.0/3.45kV, 2000KVA	NO.	1		
3 g		33.0/3.45kV, 7500KVA	NO.	1		
3 h		11.0/3.45kV, 5000KVA	NO.	1		
3 i		11.0/3.45kV, 10000KVA	NO.	1		
4.0		WTI with contacts	NO EACH TYPE	1		
4a		11.0/0.433kV, 1000KVA	NO.	1		
4 b		11.0/0.433kV, 1600KVA	NO.	1		

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PRICE SCHEDULE(MANDATORY SPARE)- Foreign Bidders

ANNEXURE-I

Sr. No.	Item code	Item Description	Unit	Quantity	Unit C&F Price Mumbai Port (Currency)	Total C&F Price Mumbai Port (Currency)
4 c		11.0/0.433kV, 2000KVA	NO.	1		
4 d		3.3/0.433kV, 1000KVA	NO.	1		
4 e		33.0/11.5kV, 5000KVA	NO.	1		
4 f		33.0/3.45kV, 2000KVA	NO.	1		
4 g		33.0/3.45kV, 7500KVA	NO.	1		
4 h		11.0/3.45kV, 5000KVA	NO.	1		
4 i		11.0/3.45kV, 10000KVA	NO.	1		
5.0		OTI with contacts	NO EACH TYPE	1		
5a		11.0/0.433kV, 1000KVA	NO.	1		
5 b		11.0/0.433kV, 1600KVA	NO.	1		
5 c		11.0/0.433kV, 2000KVA	NO.	1		
5 d		3.3/0.433kV, 1000KVA	NO.	1		
5 e		33.0/11.5kV, 5000KVA	NO.	1		
5 f		33.0/3.45kV, 2000KVA	NO.	1		
5 g		33.0/3.45kV, 7500KVA	NO.	1		
5 h		11.0/3.45kV, 5000KVA	NO.	1		
5 i		11.0/3.45kV, 10000KVA	NO.	1		

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PRICE SCHEDULE(MANDATORY SPARE)- Foreign Bidders

ANNEXURE-I

Sr. No.	Item code	Item Description	Unit	Quantity	Unit C&F Price Mumbai Port (Currency)	Total C&F Price Mumbai Port (Currency)
6.0		Pressure relief Device	NO EACH TYPE	1		
7.0		MOG	NO EACH TYPE	1		
8.0		Buchholz relay complete	NO EACH TYPE	1		
9.0		Set of gaskets	SET	1		
9a		11.0/0.433kV, 1000KVA	NO.	1		
9 b		11.0/0.433kV, 1600KVA	NO.	1		
9 c		11.0/0.433kV, 2000KVA	NO.	1		
9 d		3.3/0.433kV, 1000KVA	NO.	1		
9 e		33.0/11.5kV, 5000KVA	NO.	1		
9 f		33.0/3.45kV, 2000KVA	NO.	1		
9 g		33.0/3.45kV, 7500KVA	NO.	1		
9 h		11.0/3.45kV, 5000KVA	NO.	1		
9 i		11.0/3.45kV, 10000KVA	NO.	1		

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PRICE SCHEDULE(MANDATORY SPARE)- Foreign Bidders

ANNEXURE-I

Sr. No.	Item code	Item Description	Unit	Quantity	Unit C&F Price Mumbai Port (Currency)	Total C&F Price Mumbai Port (Currency)
10.0		Set of valves	SET	1		
10a		11.0/0.433kV, 1000KVA	NO.	1		
10 b		11.0/0.433kV, 1600KVA	NO.	1		
10 c		11.0/0.433kV, 2000KVA	NO.	1		
10 d		3.3/0.433kV, 1000KVA	NO.	1		
10 e		33.0/11.5kV, 5000KVA	NO.	1		
10 f		33.0/3.45kV, 2000KVA	NO.	1		
10 g		33.0/3.45kV, 7500KVA	NO.	1		
10 h		11.0/3.45kV, 5000KVA	NO.	1		
10 i		11.0/3.45kV, 10000KVA	NO.	1		
11.0		Air cell for conservator	NO. (AS APPLICABLE)	1		
Total						

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AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)- For Non ACC Application
PRICE SCHEDULE (EXTRA OIL)- Foreign Bidders

ANNEXURE-II

Sr. No.	Item Description	Unit	Quantity	Unit C&F Price Mumbai Port (Currency)	Total C&F Price Mumbai Port (Currency)
EXTRA OIL (10%) IN SEALED NON RETURNABLE STANDARD DRUMS (Type & no. of Transformers, as below)					
1.0	1000kVA, 11kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=6.25%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with solidly grounded LVN termination)	NO.	2		
2.0	1600kVA, 11kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=8.0%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with solidly grounded LVN termination)	NO.	2		
3.0	2000kVA, 11kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=10.0%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with solidly grounded LVN termination)	NO.	30		

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PRICE SCHEDULE (EXTRA OIL)- Foreign Bidders

ANNEXURE-II

Sr. No.	Item Description	Unit	Quantity	Unit C&F Price Mumbai Port (Currency)	Total C&F Price Mumbai Port (Currency)
4.0	1000kVA, 3.3kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=6.25%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, LV and with solidly grounded LVN termination)	NO.	2		
5.0	5000kVA, 33kV/11.5kV, 3 phase, 2 winding, outdoor, ONAN, Z=8%, Dyn11, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, LV and with solidly grounded LVN termination)	NO.	2		
6.0	2000kVA, 33kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=6%, Dyn11, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, LV and LVN termination)	NO.	2		
7.0	7500kVA, 33kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=7%, Dyn11, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, LV and LVN termination)	NO.	2		

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PRICE SCHEDULE (EXTRA OIL)- Foreign Bidders

ANNEXURE-II

Sr. No.	Item Description	Unit	Quantity	Unit C&F Price Mumbai Port (Currency)	Total C&F Price Mumbai Port (Currency)
8.0	5000kVA, 11kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=7%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with cable box type LVN termination)	NO.	2		
9.0	10000kVA, 11kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=9%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with cable box type LVN termination)	NO.	2		
Total					

NOTES

1	BIDDER SHALL SUPPLY 10% EXTRA OIL AS PER THE QUOTED PRICE. QUANTITY OF EXTRA OIL SHALL BE SUBJECT TO APPROVAL DURING DETAIL ENGINEERING.
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3 X 660 MW NORTH KARANPURA STPP
AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)-For Non ACC Application
PRICE SCHEDULE (TYPE TEST)- Foreign Bidders

ANNEXURE-III

Sr. No.	Description of Type Test	Unit	Quantity	Unit Prices (Currency)	Total Prices (Currency)
1.0	1000kVA, 11kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=6.25%, Dyn1, OFF Circuit taps $\pm 5\%$ in steps of 2.5% (with cable box type HV, with bus-duct type LV and with solidly grounded LVN termination)	NO.			
1.a	TANK PRESSURE TEST	NO.	1		
1.b	TANK VACUUM TEST	NO.	1		
1.c	MEASUREMENT OF ACOUSTIC NOISE LEVEL AS PER NEMA TR-1	NO.	1		
1.d	TEMPERATURE RISE TEST AT A TAP CORRESPONDING TO MAXIMUM LOSSES. (Gas Chromatography shall be conducted on oil sample taken before & immediately after temp. rise test. Gas analysis shall be as per IS: 9434 (based on IEC: 60567), results will be interpreted as per IS: 10593 (based on IEC: 60599). Result shall be recorded for future reference).	NO.	1		
1.e	LIGHTNING IMPULSE(FULL & CHOPPED WAVE) TEST ON WINDINGS (AS PER IEC 60076-3)	NO.	1		
1.f	SHORT CIRCUIT TEST (SPECIAL TEST) AS PER IEC 60076-5**	NO.	1	AS PER NOTE 1	
2.0	1600kVA, 11kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=8.0%, Dyn1, OFF Circuit taps $\pm 5\%$ in steps of 2.5% (with cable box type HV, with bus-duct type LV and with solidly grounded LVN termination)	NO.			
2.a	TANK PRESSURE TEST	NO.	1		

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PRICE SCHEDULE (TYPE TEST)- Foreign Bidders

ANNEXURE-III

Sr. No.	Description of Type Test	Unit	Quantity	Unit Prices (Currency)	Total Prices (Currency)
2 b	TANK VACUUM TEST	NO.	1		
2 c	MEASUREMENT OF ACOUSTIC NOISE LEVEL AS PER NEMA TR-1	NO.	1		
2 d	TEMPERATURE RISE TEST AT A TAP CORRESPONDING TO MAXIMUM LOSSES. (Gas Chromatography shall be conducted on oil sample taken before & immediately after temp. rise test. Gas analysis shall be as per IS: 9434 (based on IEC: 60567), results will be interpreted as per IS: 10593 (based on IEC: 60599). Result shall be recorded for future reference).	NO.	1		
2 e	LIGHTNING IMPULSE(FULL & CHOPPED WAVE) TEST ON WINDINGS (AS PER IEC 60076-3)	NO.	1		
2 f	SHORT CIRCUIT TEST (SPECIAL TEST) AS PER IEC 60076-5**	NO.	1	AS PER NOTE 1	
3.0	2000kVA, 11kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=10.0%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with solidly grounded LVN termination)	NO.			
3.a	TANK PRESSURE TEST	NO.	1		
3 b	TANK VACUUM TEST	NO.	1		
3 c	MEASUREMENT OF ACOUSTIC NOISE LEVEL AS PER NEMA TR-1	NO.	1		

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PRICE SCHEDULE (TYPE TEST)- Foreign Bidders

ANNEXURE-III

Sr. No.	Description of Type Test	Unit	Quantity	Unit Prices (Currency)	Total Prices (Currency)
3 d	TEMPERATURE RISE TEST AT A TAP CORRESPONDING TO MAXIMUM LOSSES. (Gas Chromatography shall be conducted on oil sample taken before & immediately after temp. rise test. Gas analysis shall be as per IS: 9434 (based on IEC: 60567), results will be interpreted as per IS: 10593 (based on IEC: 60599). Result shall be recorded for future reference).	NO.	1		
3 e	LIGHTNING IMPULSE(FULL & CHOPPED WAVE) TEST ON WINDINGS (AS PER IEC 60076-3)	NO.	1		
3 f	SHORT CIRCUIT TEST (SPECIAL TEST) AS PER IEC 60076-5**	NO.	1	AS PER NOTE 1	
4.0	1000kVA, 3.3kV/0.433kV, 3 phase, 2 winding, outdoor, ONAN, Z=6.25%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, LV and with solidly grounded LVN termination)	NO.			
4.a	TANK PRESSURE TEST	NO.	1		
4 b	TANK VACUUM TEST	NO.	1		
4 c	MEASUREMENT OF ACOUSTIC NOISE LEVEL AS PER NEMA TR-1	NO.	1		

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ANNEXURE-III

Sr. No.	Description of Type Test	Unit	Quantity	Unit Prices (Currency)	Total Prices (Currency)
4 d	TEMPERATURE RISE TEST AT A TAP CORRESPONDING TO MAXIMUM LOSSES. (Gas Chromatography shall be conducted on oil sample taken before & immediately after temp. rise test. Gas analysis shall be as per IS: 9434 (based on IEC: 60567), results will be interpreted as per IS: 10593 (based on IEC: 60599). Result shall be recorded for future reference).	NO.	1		
4 e	LIGHTNING IMPULSE(FULL & CHOPPED WAVE) TEST ON WINDINGS (AS PER IEC 60076-3)	NO.	1		
4 f	SHORT CIRCUIT TEST (SPECIAL TEST) AS PER IEC 60076-5**	NO.	1	AS PER NOTE 1	
5.0	5000kVA, 33kV/11.5kV, 3 phase, 2 winding, outdoor, ONAN, Z=8%, Dyn11, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, LV and with solidly grounded LVN termination)	NO.			
5.a	TANK PRESSURE TEST	NO.	1		
5 b	TANK VACUUM TEST	NO.	1		
5 c	MEASUREMENT OF ACOUSTIC NOISE LEVEL AS PER NEMA TR-1	NO.	1		

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ANNEXURE-III

Sr. No.	Description of Type Test	Unit	Quantity	Unit Prices (Currency)	Total Prices (Currency)
5 d	TEMPERATURE RISE TEST AT A TAP CORRESPONDING TO MAXIMUM LOSSES. (Gas Chromatography shall be conducted on oil sample taken before & immediately after temp. rise test. Gas analysis shall be as per IS: 9434 (based on IEC: 60567), results will be interpreted as per IS: 10593 (based on IEC: 60599). Result shall be recorded for future reference).	NO.	1		
5 e	LIGHTNING IMPULSE(FULL & CHOPPED WAVE) TEST ON WINDINGS (AS PER IEC 60076-3)	NO.	1		
5 f	SHORT CIRCUIT TEST (SPECIAL TEST) AS PER IEC 60076-5**	NO.	1	AS PER NOTE 1	
6.0	2000kVA, 33kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=6%, Dyn11, OFF Circuit taps $\pm 5\%$ in steps of 2.5% (with cable box type HV, LV and LVN termination)	NO.			
6.a	TANK PRESSURE TEST	NO.	1		
6 b	TANK VACUUM TEST	NO.	1		
6 c	MEASUREMENT OF ACOUSTIC NOISE LEVEL AS PER NEMA TR-1	NO.	1		

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PRICE SCHEDULE (TYPE TEST)- Foreign Bidders

ANNEXURE-III

Sr. No.	Description of Type Test	Unit	Quantity	Unit Prices (Currency)	Total Prices (Currency)
6 d	TEMPERATURE RISE TEST AT A TAP CORRESPONDING TO MAXIMUM LOSSES. (Gas Chromatography shall be conducted on oil sample taken before & immediately after temp. rise test. Gas analysis shall be as per IS: 9434 (based on IEC: 60567), results will be interpreted as per IS: 10593 (based on IEC: 60599). Result shall be recorded for future reference).	NO.	1		
6e	LIGHTNING IMPULSE(FULL & CHOPPED WAVE) TEST ON WINDINGS (AS PER IEC 60076-3)	NO.	1		
6 f	LIGHTNING IMPULSE ON NEUTRAL (For transformer neutral earthed through NGR)	NO.	1		
6 g	SHORT CIRCUIT TEST (SPECIAL TEST) AS PER IEC 60076-5**	NO.	1	AS PER NOTE 1	
7.0	7500kVA, 33kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=7%, Dyn11, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, LV and LVN termination)	NO.			
7.a	TANK PRESSURE TEST	NO.	1		
7 b	TANK VACUUM TEST	NO.	1		
7 c	MEASUREMENT OF ACOUSTIC NOISE LEVEL AS PER NEMA TR-1	NO.	1		

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AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)-For Non ACC Application
PRICE SCHEDULE (TYPE TEST)- Foreign Bidders

ANNEXURE-III

Sr. No.	Description of Type Test	Unit	Quantity	Unit Prices (Currency)	Total Prices (Currency)
7 d	TEMPERATURE RISE TEST AT A TAP CORRESPONDING TO MAXIMUM LOSSES. (Gas Chromatography shall be conducted on oil sample taken before & immediately after temp. rise test. Gas analysis shall be as per IS: 9434 (based on IEC: 60567), results will be interpreted as per IS: 10593 (based on IEC: 60599). Result shall be recorded for future reference).	NO.	1		
7 e	LIGHTNING IMPULSE(FULL & CHOPPED WAVE) TEST ON WINDINGS (AS PER IEC 60076-3)	NO.	1		
7 f	LIGHTNING IMPULSE ON NEUTRAL (For transformer neutral earthed through NGR)	NO.	1		
7 g	SHORT CIRCUIT TEST (SPECIAL TEST) AS PER IEC 60076-5**	NO.	1	AS PER NOTE 1	
8.0	5000kVA, 11kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=7%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with cable box type LVN termination)	NO.			
8.a	TANK PRESSURE TEST	NO.	1		
8 b	TANK VACUUM TEST	NO.	1		
8 c	MEASUREMENT OF ACOUSTIC NOISE LEVEL AS PER NEMA TR-1	NO.	1		

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AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)-For Non ACC Application
PRICE SCHEDULE (TYPE TEST)- Foreign Bidders

ANNEXURE-III

Sr. No.	Description of Type Test	Unit	Quantity	Unit Prices (Currency)	Total Prices (Currency)
8 d	TEMPERATURE RISE TEST AT A TAP CORRESPONDING TO MAXIMUM LOSSES. (Gas Chromatography shall be conducted on oil sample taken before & immediately after temp. rise test. Gas analysis shall be as per IS: 9434 (based on IEC: 60567), results will be interpreted as per IS: 10593 (based on IEC: 60599). Result shall be recorded for future reference).	NO.	1		
8 e	LIGHTNING IMPULSE(FULL & CHOPPED WAVE) TEST ON WINDINGS (AS PER IEC 60076-3)	NO.	1		
8 f	LIGHTNING IMPULSE ON NEUTRAL (For transformer neutral earthed through NGR)	NO.	1		
8 g	SHORT CIRCUIT TEST (SPECIAL TEST) AS PER IEC 60076-5**	NO.	1	AS PER NOTE 1	
9.0	10000kVA, 11kV/3.45kV, 3 phase, 2 winding, outdoor, ONAN, Z=9%, Dyn1, OFF Circuit taps ±5% in steps of 2.5% (with cable box type HV, with bus-duct type LV and with cable box type LVN termination)	NO.			
9.a	TANK PRESSURE TEST	NO.	1		
9 b	TANK VACUUM TEST	NO.	1		
9 c	MEASUREMENT OF ACOUSTIC NOISE LEVEL AS PER NEMA TR-1	NO.	1		

3 X 660 MW NORTH KARANPURA STPP
AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)-For Non ACC Application
PRICE SCHEDULE (TYPE TEST)- Foreign Bidders

ANNEXURE-III

Sr. No.	Description of Type Test	Unit	Quantity	Unit Prices (Currency)	Total Prices (Currency)
9 d	TEMPERATURE RISE TEST AT A TAP CORRESPONDING TO MAXIMUM LOSSES. (Gas Chromatography shall be conducted on oil sample taken before & immediately after temp. rise test. Gas analysis shall be as per IS: 9434 (based on IEC: 60567), results will be interpreted as per IS: 10593 (based on IEC: 60599). Result shall be recorded for future reference).	NO.	1		
9 e	LIGHTNING IMPULSE(FULL & CHOPPED WAVE) TEST ON WINDINGS (AS PER IEC 60076-3)	NO.	1		
9 f	LIGHTNING IMPULSE ON NEUTRAL (For transformer neutral earthed through NGR)	NO.	1		
9 g	SHORT CIRCUIT TEST (SPECIAL TEST) AS PER IEC 60076-5**	NO.	1	AS PER NOTE 1	
Total					

NOTES

- 1 **CHARGES FOR CARRYING OUT SHORT CIRCUIT TEST SHALL BE PAYABLE BASED ON ACTUAL INVOICE FROM DESIGNATED LABORATORIES (CPRI, BHOPAL/ CPRI, BANGLORE / ERDA, VADODARA) WITH AN ADDITIONAL LUMP SUM AMOUNT OF 5% OF EX-WORKS PRICE OF TRANSFORMER BEING TESTED TO COVER HANDLING COSTS (TRANSPORTATION, INSURANCE ETC.).
- 2 IN CASE TYPE TESTS ARE WAIVED, THE TYPE TEST CHARGES SHALL NOT BE PAYABLE TO THE BIDDER
- 3 CHARGES FOR ALL TYPE TESTS EXCEPT SHORT CIRCUIT TEST SHALL BE CONSIDERED FOR PRICE COMPARISONS PURPOSE.

3 X 660 MW NORTH KARANPURA STPP
AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)-For Non ACC Application
PRICE SCHEDULE (TYPE TEST)- Foreign Bidders

ANNEXURE-III

Sr. No.	Description of Type Test	Unit	Quantity	Unit Prices (Currency)	Total Prices (Currency)
4	IN CASE ANY OF THE TYPE AND SPECIAL TESTS ARE REQUIRED TO BE REPEATED THE SAME SHALL BE CARRIED OUT BY THE VENDOR WITHOUT ANY COMMERCIAL / DELIVERY IMPLICATION TO BHEL.				