

ANNEXURE-I										
2 X 600 MW SINGARENI THERMAL POWER PROJECT, ADILABAD										
PRICE SCHEDULE FOR AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)										
MAIN SUPPLY										
SL NO	ITEM DESCRIPTION	UOM	TOTAL QTY	UNIT EX- WORKS PRICE (DULY PACKED) (₹)	TOTAL EX- WORKS PRICE (DULY PACKED) (₹)	ED (INCLUDING CESS) @ % (₹)	CST/VAT @ % Against Form 'C' /EI/EII (₹)	SERVICE TAX @ (₹)	FREIGHT CHARGES (INCLUDING SERVICE TAX) @ % OF TOTAL EX WORKS (₹)	TOTAL F.O.R SITE PRICE (₹)
A	AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)									
A.1	1600kVA, 11kV/433V, 3 phase, 2 winding, outdoor, ONAN, Z= 8.0%, Dyn1, OFF Circuit taps ± 5% in steps of 2.5% (with cable box type HV and with bus-duct type LV termination)	NOS	16.00							
A.2	1000KVA, 11KV/433V, 3 phase, 2 winding, outdoor, ONAN, Z= 6.0%, Dyn1, OFF Circuit taps ± 5% in steps of 2.5% (with cable box type HV and with bus-duct type LV termination)	NOS	2.00							
A.3	1000KVA, 11KV/433V, 3 phase, 2 winding, outdoor, ONAN, Z= 6.0%, Dyn1, OFF Circuit taps ± 5% in steps of 2.5% (with cable box type HV and with bus-duct type LV termination) [max. losses at 50% loading - 3.0KW, Max losses at 100% loading - 9.8 kw. For Green Building as per ECBC table 8.2]	NOS	2.00							
A.4	TOTAL FROM A.1 TO A.3	NOS	20.00							
B.0	10 % EXTRA TRANSFORMER OIL IN SEALED NON RETURNABLE STANDARD DRUMS FOR FOLLOWING AUXILIARY SERVICE TRANSFORMERS (OIL FILLED) (Item-wise breakup as per Annexure-II)	LOT	1.00							

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2 X 600 MW SINGARENI THERMAL POWER PROJECT, ADILABAD										
PRICE SCHEDULE FOR AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)										
MAIN SUPPLY										
SL NO	ITEM DESCRIPTION	UOM	TOTAL QTY	UNIT EX-WORKS PRICE (DULY PACKED) (₹)	TOTAL EX-WORKS PRICE (DULY PACKED) (₹)	ED (INCLUDING CESS) @ % (₹)	CST/VAT @ % Against Form 'C' /EI/EII (₹)	SERVICE TAX @ (₹)	FREIGHT CHARGES (INCLUDING SERVICE TAX) @ % OF TOTAL EX WORKS (₹)	TOTAL F.O.R SITE PRICE (₹)
C.0	TYPE TESTS/ SPECIALTESTS ON TRANSFORMERS (Item-wise breakup as per Annexure-III)	LOT	1.00							
D.0	MANDATORY SPARES (Item-wise breakup as per Annexure-IV)	LOT	1.00							
E.0	ORDERING VALUE (A.4+B.0+C.0+D.0)									
Note:-										
1. Bidder to note that total price indicated above at E.0 shall be considered for evaluation and hence should be complete in all respect for the full scope defined and considering all terms and conditions agreed.										
2. Any item not included in the price quoted above and shown separately will not be taken cognizance of and the offer shall be liable for rejection.										
3. Above Quantity of Transformers shall be for ordering. Variation in Rating and Quantity may be to the extent of +30% of the Total Order Value.										
4. Bidder shall supply 10% extra oil as per the quoted price. Quantity of extra oil shall be subject to approval during detail engineering.										
5. Bidders to note that all routine and special tests as per Clause No. 10.05 of Technical Specification No. PE-RC-999-302-E001 and as ammended by this Specification in addition to those specified in IEC 60076 shall be carried out on all Transformers without any additional cost. All routine tests in accordance with IEC 60076 shall be carried out in all the transformers. Bidders shall quote accordingly.										
6. In addition to the tests mentioned at 10.05 of Specification No. PE-RC-999-302-E001 dated 28.05.2010, please note that following additional tests are to be carried out as routine tests on all Transformers without any additional cost. Dielectric Tests shall be carried out as per IEC 60076-3										
7. For any clarification please refer Technical Specification No-PE-TS-381-302-E001										
8. Indian Bidders to note that the Freight charges that is to be quoted by you shall be in percentage of the Total Ex Works. Bidder to mention the percentage of freight (of Total Ex Works).										

Sumet Sahay

सुमेत साहाय

अभिषेक (वि.सं. 1-21)

भारत देशी इंजीनियरिंग लिमिटेड

एन.पी. रोड - पश्चिम बंगाल, कोलकाता

पिन कोड - 700 001, एन.पी. रोड, कोलकाता

फोन नं. - 25, 26, 27 - 185, मोबाइल - 991 301

ANNEXURE-II									
2 X 600 MW SINGARENI THERMAL POWER PROJECT, ADILABAD									
PRICE SCHEDULE FOR AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)									
EXTRA OIL									
SL NO	ITEM DESCRIPTION	UOM	TOTAL QTY	COST OF 10% EXTRA OIL PER TRANSFORMER (DULY PACKED) (₹)	TOTAL COST OF 10% EXTRA OIL PER TRANSFORMER (DULY PACKED) (₹)	ED (INCLUDING CESS) @ % (₹)	CST/VAT @ % Against Form 'C' /EI/EII (₹)	FREIGHT CHARGES (INCLUDING SERVICE TAX) @ % OF TOTAL EX WORKS (₹)	TOTAL F.O.R SITE PRICE (₹)
B.0	10 % EXTRA TRANSFORMER OIL IN SEALED NON RETURNABLE STANDARD DRUMS FOR FOLLOWING AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)								
B.1	1600KVA, 11KV/433V, 3 phase, 2 winding, outdoor, ONAN, Z= 8.0%, Dyn1, OFF Circuit taps ± 5% in steps of 2.5% (with cable box type HV and with bus-duct type LV termination)	NOS	16.00						
B.2	1000KVA, 11KV/433V, 3 phase, 2 winding, outdoor, ONAN, Z= 6.0%, Dyn1, OFF Circuit taps ± 5% in steps of 2.5% (with cable box type HV and with bus-duct type LV termination)	NOS	2.00						
B.3	1000KVA, 11KV/433V, 3 phase, 2 winding, outdoor, ONAN, Z= 6.0%, Dyn1, OFF Circuit taps ± 5% in steps of 2.5% (with cable box type HV and with bus-duct type LV termination) [max. losses at 50% loading-3.0KW, Max losses at 100% loading - 9.8 kw. For Green Building as per ECBC table 8.2]	NOS	2.00						
B.4	TOTAL FROM B.1 TO B.3								

Note:-

1. Bidder shall supply 10% extra oil as per the quoted price. Quantity of extra oil shall be subject to approval during detail engineering.

Sumeet Lakshay

प्रमाणित किया जाता है कि
यह दस्तावेज़ (अनु. 1-2)
केवल सूचना के लिए है और इसमें कोई भी
गारंटी नहीं दी जाती है।
यदि कोई भी त्रुटि या त्रुटि पाई जाएगी तो
यह दस्तावेज़ अमान्य होगा।

ANNEXURE-III							
2 X 600 MW SINGARENI THERMAL POWER PROJECT, ADILABAD							
PRICE SCHEDULE FOR AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)							
TYPE TESTS/ SPECIALTESTS CHARGES ON AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)							
SL NO	ITEM DESCRIPTION	UOM	TOTAL QTY	UNIT TEST CHARGES (₹)	TOTAL TEST CHARGES (₹)	SERVICE TAX @ (₹)	TOTAL TEST CHARGES INCLUDING SERVICE TAX (₹)
C.0	TYPE TESTS/ SPECIALTESTS CHARGES ON FOLLOWING AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)						
C.1	1600kVA, 11kV/433V, 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 and with bus-duct type LV termination)						
C.1.1	Tank Pressure Test	LOT	1.00				
C.1.2	Tank Vacuum Test	LOT	1.00				
C.1.3	Measurement of Acoustic Noise Level as per NEMA TR-1	LOT	1.00				
C.1.4	Temperature Rise Test at a tap corresponding to maximum losses	LOT	1.00				
C.1.5	Dielectric Type Test including Chopped Wave Impulse Test on all Three Phases	LOT	1.00				
C.1.6	SUB-TOTAL (SUM OF C.1.1 TO C.1.5)						
C.2	1000KVA, 11KV/433V, 3 phase, 2 winding, outdoor, ONAN, Z= 6.0%, Dyn1, OFF Circuit taps \pm 5% in steps of 2.5% (with cable box type HV and with bus-duct type LV termination)						
C.2.1	Tank Pressure Test	LOT	1.00				
C.2.2	Tank Vacuum Test	LOT	1.00				

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ANNEXURE-IV									
2 X 600 MW SINGARENI THERMAL POWER PROJECT, ADILABAD									
PRICE SCHEDULE FOR AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)									
MANDATORY SPARES									
SL NO	ITEM DESCRIPTION	UOM	TOTAL QTY	UNIT EX-WORKS PRICE (DULY PACKED) (₹)	TOTAL EX- WORKS PRICE (DULY PACKED) (₹)	ED (INCLUDING CESS) @ % (₹)	CST/VAT @ % Against Form 'C' /EI/EII (₹)	FREIGHT CHARGES (INCLUDING SERVICE TAX) @ % OF TOTAL EX WORKS (₹)	TOTAL F.O.R SITE PRICE (₹)
D.0	MANDATORY SPARES FOR AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)								
D.1	HV bushing with metal parts & gaskets								
D.1.1	11.0/0.433kV, 1600KVA	NOS	1.00						
D.1.2	11.0/0.433kV, 1000KVA	NOS	1.00						
D.2	LV bushing with metal parts & gaskets								
D.2.1	11.0/0.433kV, 1600KVA	NOS	1.00						
D.2.2	11.0/0.433kV, 1000KVA	NOS	1.00						
D.3	Neutral bushing with metal parts & gaskets								
D.3.1	11.0/0.433kV, 1600KVA	NOS	1.00						
D.3.2	11.0/0.433kV, 1000KVA	NOS	1.00						
D.4	WTI with contacts	NOS	1.00						
D.5	OTI with contacts	NOS	1.00						
D.6	Pressure relief device	NOS	1.00						
D.7	Magnetic oil gauge	NOS	1.00						
D.8	Buchholz relay complete	NOS	1.00						

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ANNEXURE-IV									
2 X 600 MW SINGARENI THERMAL POWER PROJECT, ADILABAD									
PRICE SCHEDULE FOR AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)									
MANDATORY SPARES									
SL NO	ITEM DESCRIPTION	UOM	TOTAL QTY	UNIT EX-WORKS PRICE (DULY PACKED) (₹)	TOTAL EX- WORKS PRICE (DULY PACKED) (₹)	ED (INCLUDING CESS) @ % (₹)	CST/VAT @ % Against Form 'C' /EI/EII (₹)	FREIGHT CHARGES (INCLUDING SERVICE TAX) @ % OF TOTAL EX WORKS (₹)	TOTAL F.O.R SITE PRICE (₹)
D.9	Set of gaskets	SET	1.00						
D.10	Set of valves	SET	1.00						
D.11	Air cell for conservator (if applicable)	NOS	1.00						
D.12	SUB-TOTAL (SUM OF D.1 TO D.11) (Should be same as D.0 of Annexure-I)								
Note:-									
1. Set consists of quantities required for 1 complete Transformer. Wherever 'Set' is indicated above, it means the total parts / accessories required to replace the particular item for a given equipment.									

Sumet Sahay

सुमीत सहय
अभिषेक (पेजी. 1-2)
आपका हेतु नवीकरित्वाय विवेक
आपका हेतु नवीकरित्वाय विवेक
आपका हेतु नवीकरित्वाय विवेक
आपका हेतु नवीकरित्वाय विवेक
आपका हेतु नवीकरित्वाय विवेक

ANNEXURE-V				
2 X 600 MW SINGARENI THERMAL POWER PROJECT, ADILABAD				
SCHEDULE OF UNIT PRICES FOR AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)				
SL NO	ITEM DESCRIPTION	UOM	TOTAL QTY	UNIT PRICE (₹)
AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)				
1	HV bushing with metal parts & gaskets			
1.1	11.0/0.433kV, 1600KVA	NOS	1.00	
1.2	11.0/0.433kV, 1000KVA	NOS	1.00	
2	LV bushing with metal parts & gaskets			
2.1	11.0/0.433kV, 1600KVA	NOS	1.00	
2.2	11.0/0.433kV, 1000KVA	NOS	1.00	
3	WTI with alarm & trip contacts	NOS	1.00	
4	OTI with alarm & trip contacts	NOS	1.00	
5	Magnetic oil level gauge (MOG)	NOS	1.00	
6	Diaphragm of explosion vent	NOS	1.00	
7	Buchholz relay	NOS	1.00	
8	Silica gel charge	CHARGE	3.00	
9	Floats with contacts for Buchholz relay	SETS	1.00	
10	Set of gaskets	SETS	2.00	
11	Contacts for tap changer	SETS	1.00	
12	Set of valves (1 no. of each size & type)	SETS	1.00	
13	Set of windings for one limb in a suitable oil container	NOS	1 no. each rating and type of transformer	
14	Hydraulic/ Screw Jack	NOS	4.00	
15	Any other item considered essential by the bidder			
Note:-				
1. Wherever 'set' is indicated above, it means the total parts / accessories required to replace the particular item for a given equipment.				

Suman Sahay

सुनीत सहय
अभिषेक (डी.सी. 1-2)
गारुड देवी इन्फ्रस्ट्रक्चर्स लिमिटेड
आर. वि. ए. रोड, बल्लारपुर, बल्लारपुर जिला
डी.सी. 26, राकड़ - 184, राकड़

ANNEXURE-VI		
2 X 600 MW SINGARENI THERMAL POWER PROJECT, ADILABAD		
SCHEDULE OF UNIT PRICES FOR TYPE TESTS FOR AUXILIARY SERVICE TRANSFORMERS		
(OIL FILLED)		
SL NO	ITEM DESCRIPTION	UNIT PRICE (₹)
	TYPE TEST FOR FOLLOWING AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)	
1	1600kVA, 11kV/433V, 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 and with bus duct type LV termination)	
1.1	Capacitance & Tan Delta of windings	
1.2	Measurement of Harmonic current in no load current	
1.3	PRD operation test (for 2mva and above rating)	
1.4	Degree of Protection (IP 55) tests on Marshalling box	
1.5	Degree of Protection (IP 55) tests on cable box	
1.6	Zero Sequence Impedance	
1.7	Short Circuit Test as per IEC 60076-5**	
1.8	Lighting impulse (Full & Chopped Wave) test on HV & LV winding as per cl 14 of IEC 60076-3)	
1.9	DGA 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).	
2	1000KVA, 11KV/433V, 3 phase, 2 winding, outdoor, ONAN, Z= 6.0%, Dyn1, OFF Circuit taps \pm 5% in steps of 2.5% (with cable box type HV and with bus duct type LV termination)	
2.1	Capacitance & Tan Delta of windings	
2.2	Measurement of Harmonic current in no load current	
2.3	PRD operation test (for 2mva and above rating)	
2.4	Degree of Protection (IP 55) tests on Marshalling box	
2.5	Degree of Protection (IP 55) tests on cable box	
2.6	Zero Sequence Impedance	
2.7	Short Circuit Test as per IEC 60076-5**	
2.8	Lighting impulse (Full & Chopped Wave) test on HV & LV winding as per cl 14 of IEC 60076-3)	
2.9	DGA 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).	

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ANNEXURE-VI		
2 X 600 MW SINGARENI THERMAL POWER PROJECT, ADILABAD		
SCHEDULE OF UNIT PRICES FOR TYPE TESTS FOR AUXILIARY SERVICE TRANSFORMERS (OIL FILLED)		
SL NO	ITEM DESCRIPTION	UNIT PRICE (₹)
3	1000KVA, 11KV/433V, 3 phase, 2 winding, outdoor, ONAN, Z= 6.0%, Dyn1, OFF Circuit taps $\pm 5\%$ in steps of 2.5% (with cable box type HV and with bus-duct type LV termination) [max. losses at 50% loading-3.0KW, Max losses at 100% loading - 9.8 kw. For Green Building as per ECBC table 8.2]	
3.1	Capacitance & Tan Delta of windings	
3.2	Measurement of Harmonic current in no load current	
3.3	PRD operation test (for 2mva and above rating)	
3.4	Degree of Protection (IP 55) tests on Marshalling box	
3.5	Degree of Protection (IP 55) tests on cable box	
3.6	Zero Sequence Impedance	
3.7	Short Circuit Test as per IEC 60076-5**	
3.8	Lighting impulse (Full & Chopped Wave) test on HV & LV winding as per cl 14 of IEC 60076-3)	
3.9	DGA 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).	
Note:-		
1. All the type tests shall be conducted after short circuit test.		
2. **charges for carrying out short circuit test shall be payable based on actual invoice from designated laboratories (CPRI, Bhopal/ CPRI, Bangalore / 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.).		

Sumet Sahay

सुनील साहाय
अभिप्रेत (पृ. १०१-१-२१)
नगर सेवा प्रशासनिक सेवा विभाग
नगर सेवा प्रशासनिक सेवा विभाग
प्रीति नगर, रायपुर, छत्तीसगढ़
आर. नं- २५, सेक्टर-१५५, रायपुर - ४९१००५