

Design, Supply, Installation, Testing and Commissioning of Transformer & Bays (220 kV, 132 kV, 33 kV & 11 kV) for the Expansion of New Butwal & Kushma Substation (ADB- Package 8) : Bid CLARIFICATION II

S.NO	Bid Provision	Bidder's Queries	NEA Reply																																																																																																										
1	Bid Amendment - II	<table><tr><td rowspan="6">132/33kV, 3-Phase Power</td><td>Cl. No.</td><td>Description</td><td colspan="2">Original Value</td><td colspan="2">Amended Value</td></tr><tr><td>1.45</td><td>Rating at different cooling (%)</td><td>KSS</td><td>NBSS</td><td>KSS</td><td>NBSS</td></tr><tr><td></td><td></td><td colspan="2">60 / 100</td><td>60/90/100</td><td>60/80/100</td></tr><tr><td>1.47(i)</td><td>HV-LV Impedance at 75 Deg C -Max Voltage Tap</td><td>KSS</td><td>NBSS</td><td>KSS</td><td>NBSS</td></tr><tr><td></td><td></td><td colspan="2">10.3%</td><td>-</td><td>11.76%</td></tr><tr><td>1.47(ii)</td><td>HV-LV Impedance at 75 Deg C -Principal Tap</td><td colspan="2">12.5%</td><td>>11%/ as per IEC</td><td>11.2%</td></tr><tr><td>1.47(iii)</td><td>HV-LV Impedance at 75 Deg C –Min Voltage Tap</td><td colspan="2">15.4%</td><td>-</td><td>10.64%</td></tr><tr><td>1.52 (i)</td><td>Windings- System Fault level- HV</td><td colspan="2">31.5 kA</td><td colspan="2">40 kA</td></tr></table> <table><tr><td rowspan="15">1.2.2 Technical Particulars for 132/33 kV Power Transformer</td><td>6.a</td><td>Rated capacity- ONAN/ONAF1/ONAF2</td><td>20/24/30 MVA</td><td>24/27/30 MVA</td></tr><tr><td>8.a</td><td>Temperature rise</td><td>a)Temperature rise above 40°C ambient</td><td>a) Temperature rise above 50°C ambient</td></tr><tr><td>8.b</td><td>Hottest spot temperature in winding limited to</td><td>55°C</td><td>68°C</td></tr><tr><td>11.b</td><td>Taps-Tap steps</td><td>17</td><td>16</td></tr><tr><td>14.b</td><td>OLTC-Rating-Rated voltage</td><td>72 kV</td><td>as required</td></tr><tr><td>14.b</td><td>OLTC-Rating-Rated current (Normal)</td><td>150 A</td><td>as required</td></tr><tr><td>14.b</td><td>OLTC-Rating-Number of steps</td><td>17 Nos</td><td>16 Nos</td></tr><tr><td>16</td><td>Impedance at rated current and frequency - b) on maximum MVA base in ONAF</td><td>11.7%</td><td>12.5% for 63 MVA & >11% for 30 MVA</td></tr><tr><td>20.a</td><td>Insulation level-Power frequency withstand voltage (1 min rms) - Primary</td><td>325 kV</td><td>275 kV</td></tr><tr><td>20.a</td><td>-Secondary</td><td>95 kV</td><td>70 kV</td></tr><tr><td>20.b</td><td>Impulse withstand voltage - Primary</td><td>750 kV (crest)</td><td>750 kV (crest)</td></tr><tr><td>20.b</td><td>Impulse withstand voltage - Secondary</td><td>250 kV (crest)</td><td>170 kV (crest)</td></tr><tr><td>22.d</td><td>Details of bushings HV/LV/ HV neutral -Creepage distance</td><td>4650/1300/1300 mm</td><td>3625/900/900 mm (or as per IEC)</td></tr><tr><td>22.h</td><td>Impulse withstand voltage</td><td>750/750 kV peak</td><td>750/170 kV peak</td></tr></table> <p>The impedance values described in Amendment - II are inconsistent. Please confirm that the requirements in the "Section- 23: Technical Schedule/1.2: Guaranteed Technnnical Particular for Power Transformer" shall prevail</p>	132/33kV, 3-Phase Power	Cl. No.	Description	Original Value		Amended Value		1.45	Rating at different cooling (%)	KSS	NBSS	KSS	NBSS			60 / 100		60/90/100	60/80/100	1.47(i)	HV-LV Impedance at 75 Deg C -Max Voltage Tap	KSS	NBSS	KSS	NBSS			10.3%		-	11.76%	1.47(ii)	HV-LV Impedance at 75 Deg C -Principal Tap	12.5%		>11%/ as per IEC	11.2%	1.47(iii)	HV-LV Impedance at 75 Deg C –Min Voltage Tap	15.4%		-	10.64%	1.52 (i)	Windings- System Fault level- HV	31.5 kA		40 kA		1.2.2 Technical Particulars for 132/33 kV Power Transformer	6.a	Rated capacity- ONAN/ONAF1/ONAF2	20/24/30 MVA	24/27/30 MVA	8.a	Temperature rise	a)Temperature rise above 40°C ambient	a) Temperature rise above 50°C ambient	8.b	Hottest spot temperature in winding limited to	55°C	68°C	11.b	Taps-Tap steps	17	16	14.b	OLTC-Rating-Rated voltage	72 kV	as required	14.b	OLTC-Rating-Rated current (Normal)	150 A	as required	14.b	OLTC-Rating-Number of steps	17 Nos	16 Nos	16	Impedance at rated current and frequency - b) on maximum MVA base in ONAF	11.7%	12.5% for 63 MVA & >11% for 30 MVA	20.a	Insulation level-Power frequency withstand voltage (1 min rms) - Primary	325 kV	275 kV	20.a	-Secondary	95 kV	70 kV	20.b	Impulse withstand voltage - Primary	750 kV (crest)	750 kV (crest)	20.b	Impulse withstand voltage - Secondary	250 kV (crest)	170 kV (crest)	22.d	Details of bushings HV/LV/ HV neutral -Creepage distance	4650/1300/1300 mm	3625/900/900 mm (or as per IEC)	22.h	Impulse withstand voltage	750/750 kV peak	750/170 kV peak	<p>For the inconsistent values for impedance in</p> <p>Bid Amendment-II/ 9. Volume II, Section- 3: Power Transformer/6.0: Technical Parameters/ 6.3 Technical Particulars / Parameters of Transformers (132/33kV, 3-Phase Power transformer)/1.47(ii)-NBSS – 11.2%</p> <p>and</p> <p>12.Volume II, Section- 23: Technical Schedule/1.2: Guaranteed Technnnical Particular for Power Transformer/1.2.2 Technical Particulars for 132/33 kV Power Transformer/ 16- Impedance at rated current and frequency - b) on maximum MVA base in ONAF- 12.5% for 63 MVA</p> <p>It is to clarify that the value for impedance of 132/33 kV 40/51.5/63 MVA Power Transformer at 75 Deg C- Principle Tap/ on Maximum MVA is 11.2%</p>
132/33kV, 3-Phase Power	Cl. No.	Description		Original Value		Amended Value																																																																																																							
	1.45	Rating at different cooling (%)		KSS	NBSS	KSS	NBSS																																																																																																						
				60 / 100		60/90/100	60/80/100																																																																																																						
	1.47(i)	HV-LV Impedance at 75 Deg C -Max Voltage Tap		KSS	NBSS	KSS	NBSS																																																																																																						
				10.3%		-	11.76%																																																																																																						
	1.47(ii)	HV-LV Impedance at 75 Deg C -Principal Tap	12.5%		>11%/ as per IEC	11.2%																																																																																																							
1.47(iii)	HV-LV Impedance at 75 Deg C –Min Voltage Tap	15.4%		-	10.64%																																																																																																								
1.52 (i)	Windings- System Fault level- HV	31.5 kA		40 kA																																																																																																									
1.2.2 Technical Particulars for 132/33 kV Power Transformer	6.a	Rated capacity- ONAN/ONAF1/ONAF2	20/24/30 MVA	24/27/30 MVA																																																																																																									
	8.a	Temperature rise	a)Temperature rise above 40°C ambient	a) Temperature rise above 50°C ambient																																																																																																									
	8.b	Hottest spot temperature in winding limited to	55°C	68°C																																																																																																									
	11.b	Taps-Tap steps	17	16																																																																																																									
	14.b	OLTC-Rating-Rated voltage	72 kV	as required																																																																																																									
	14.b	OLTC-Rating-Rated current (Normal)	150 A	as required																																																																																																									
	14.b	OLTC-Rating-Number of steps	17 Nos	16 Nos																																																																																																									
	16	Impedance at rated current and frequency - b) on maximum MVA base in ONAF	11.7%	12.5% for 63 MVA & >11% for 30 MVA																																																																																																									
	20.a	Insulation level-Power frequency withstand voltage (1 min rms) - Primary	325 kV	275 kV																																																																																																									
	20.a	-Secondary	95 kV	70 kV																																																																																																									
	20.b	Impulse withstand voltage - Primary	750 kV (crest)	750 kV (crest)																																																																																																									
	20.b	Impulse withstand voltage - Secondary	250 kV (crest)	170 kV (crest)																																																																																																									
	22.d	Details of bushings HV/LV/ HV neutral -Creepage distance	4650/1300/1300 mm	3625/900/900 mm (or as per IEC)																																																																																																									
	22.h	Impulse withstand voltage	750/750 kV peak	750/170 kV peak																																																																																																									
	2	1. SCC 8.2- Time for Commencement and Completion 2 Appendix 2: Price Adjustment	<p>1. SCC 8.2- Time for Commencement and Completion : In present market all major manufacturers are heavily booked with strong backlog due to the demand v/s supply situation. Some of the items like RIP bushing also having high lead time of approx. 14 months. At present delivery is the main concern & we are getting ex-works delivery of 315 MVA transformers approx. 780 days from the date of manufacturing clearance certificate. Hence considering current market challenges, we once again request you to extend the Time for Commencement and Completion to 960 days.</p> <p>Appendix 2: Price Adjustment: We would like to draw your kind attention that the purpose of price adjustment clause is not fulfill with the conditions & the price adjustment formula mentioned in tender condition. We would like to inform that being transformers high value & high lead item involves high risk of commodity price variation , hence it is important to have a proper price adjustment in view of in present uncertain & volatile market. We believe that proper price adjustment will be a Win- Win situation for both of us (The Buyer and The Supplier).</p> <p>In absence of proper price adjustment Suppliers will have to load the price with some firming up factor to mitigate the risk of increasing raw material prices. Suppliers limit them from aggressive bidding due to anticipation of Price increase of raw material, so actually the buyer is paying an additional price for getting the FIRM Price over Variable price requirement.</p>	<p>1. SCC 8.2- Time for Commencement and Completion : Kindly follow the bid requirement</p> <p>2. Price Adjustment Formula: Kindly follow the bid requirement</p>																																																																																																									



S.NO	Bid Provision	Bidder's Queries	NEA Reply
3	Appendix 2: Price Adjustment – clause 1.3.2.- Additional Condition Applicable to the Price Adjustment of supplied Power Transformer: • Price adjustment will be applied only if the resulting increment or decrement is more than 10% of the base material Price of the Copper and Steel for Power Transformer. And the price will be adjusted by deducting 10% of increased or decreased amount from the base material price	We request you to kindly withdraw this additional condition for limitation and ceiling	Kindly follow the bid requirement
4	Price adjustment formula	We would like to inform that formula is not properly covers the commodity risks, hence we request you to please review your formula & also include the CRGO with 32% , accordingly fixed component to be reduced. CRGO, copper, steel highly volatile & the delivery time is high & it is difficult to consider the firm prices of CRGO.	Kindly follow the bid requirement
5	Volume -I/ Section-3 Evaluation and Qualification/ 2.6 Sub- contractors/1- (Power Transformers.....) iv) Must submit the type test (excluding Dynamic Short Circuit Test) report carried out by reputed independent testing laboratory for the identical item in the same rating and construction	We shall submit type test reports of similar or higher voltage rating for 315MVA. If required, we shall conduct type test on one unit before the dispatch from any approved NABL lab.	Kindly refer Vol-I/Section 3- Evaluation and Qualification Criteria/2.6 Sub-contractors/ Page 3-19 <i>" If the bidder submits the type test report of higher rated equipment, the bidder must provide the commitment that the tupe test will be performed for the offered rating without any extra cost to employer"</i>
6	Volume -I/ Section-3 Evaluation and Qualification/ 2.6 Sub- contractors/1- (Power Transformers.....) v) Must have successfully carried out the complete type test including Dynamic Short Circuit (DSC) test as per IEC over last 10 years period as on the originally scheduled date of bid opening in Reputed Independent Testing Laboratory on : - 220 kV voltage class, three phase 315 MVA or higher rating transformer - 132 kV voltage class, three phase 63 MVA or higher rating transformer - 33 kV voltage class, three phase 24 MVA or higher rating transformer	DSC is disruptive test , hence shall not be conducted. Only Calculation shall be provided. Kindly accept.	Not accepted. Kindly refer Vol-I/Section 3- Evaluation and Qualification Criteria/2.6 Sub-contractors/ Page 3-19 <i>" If the bidder submits the type test report of higher rated equipment, the bidder must provide the commitment that the tupe test will be performed for the offered rating without any extra cost to employer"</i>
7	Volume -I/ Section-3 Evaluation and Qualification/ 2.4 Bidder's Experience/2.4.1 Contract of similar size and nature: Participation in at least 2 (two) contracts that have been successfully or substantially completed within the last 10 (ten) years and that are similar to the proposed contract, where the value of the bidder's participation under each contract exceeds USD 11 Million	Regarding the project completion timeline: A substation consists of multiple bays. The temporary construction power bay is energized first to meeton-site construction power needs, while the remaining bays are progressively energized based on site requirements. In cases where different bays within the same substation will only be deemed completed or substantially completed when the completion certificate or Acceptance Certificate is issued after the final bay is successfully constructed or energized. Please confirm if this understanding is correct.	Confirmed
8	N/A	The EPC contracting work for the entire project, including the substation, was signed under a Umbrella Agreement between Company A and the private employer. Subsequently, company A fully authorized company B through the signing of an implement agreement to totally and comprehensively execute the design, procurement, construction, installation and commissioning of the complete project. In this context, Company B is the actual and obligated company for performance of entire EPC implementation.	Please refer EQC

