Amendment-8 (dated: 25.10.2024) to RFP Documents "Transmission System for Evacuation of power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8 GW): Part C" through tariff based competitive bidding process			
Sl. No.	**Clause No.**	**Existing Clause**	**New/Revised Clause**
1.	Clause 12: DC power circuit switching requirement:	… High speed switches for discharge of the DC line shall be provided with disconnector. …	… High speed switches for discharge of the DC line **(if required by HVDC design)** shall be provided with disconnector. …
2.	Clause: 13 **Insulation Coordination:**	… (d)The minimum insulation levels for 500 kV DC transmission line to ground shall be as per CEA Regulations: ▪ Lightning impulse withstand voltage (1.2/50 micro sec) (kVp): 1800 kV ▪ Switching surge withstand voltage under wet condition (kVp): 1000 kV … (k) Arrester Protective Levels … The TSP shall design the converter equipment to withstand a maximum **continuous** AC system voltage of 440 kV. The calculations for determination of arrester energy requirement shall be based on a maximum pre-fault voltage of 440 kV. …	… (d)The minimum insulation levels for 500 kV DC transmission line to ground shall be as per CEA Regulations: ▪ Lightning impulse withstand voltage (1.2/50 micro sec) (kVp): 1800 kV ▪ Switching surge withstand voltage under wet condition (kVp): **1300 kV** … (k) Arrester Protective Levels … The TSP shall design the converter equipment to withstand a maximum AC system voltage of 440 kV **for 15 minutes**. The calculations for determination of arrester energy requirement shall be based on a maximum pre-fault voltage of 440 kV. …

3.	Clause 19 **Design Criteria for the Cooling System**	… Features to ensure high reliability, proper function and prolonged life time for the cooling system and converter valves shall be included. The following main components shall be supplied with redundancy in order to increase the availability: • main circulation water pump • air cooled liquid cooler (with redundant cooler as provided in (iv) above) • **bypass valves** • transducers • nitrogen bottles, if applicable **….**	… Features to ensure high reliability, proper function and prolonged life time for the cooling system and converter valves shall be included. The following main components shall be supplied with redundancy in order to increase the availability: • main circulation water pump • air cooled liquid cooler (with redundant cooler as provided in (iv) above) • transducers • nitrogen bottles, if applicable **….**
4.	**Clause 4**	**…** The criteria for the design and control of the network shall be as follows: - 400 kV AC bus voltages shall normally be within ±5.0% of nominal voltage (400 kV). Bus voltages outside this range may occur from time to time and may exist for long periods due to abnormal loads and/or contingencies. Unless otherwise stated, all equipment shall be rated to operate safely for AC voltages between 360 kV – 440 kV at the converter stations. **…**	**…** The criteria for the design and control of the network shall be as follows: - 400 kV AC bus voltages shall normally be within ±5.0% of nominal voltage (400 kV). Bus voltages outside this range may occur from time to time and may exist for long periods due to abnormal loads and/or contingencies. **Unless otherwise stated, all equipment shall be rated to operate safely for AC voltages between 360 kV – 420 kV continuously and for AC voltages between 420 kV – 440 kV for atleast 15 minutes at the converter stations.** **…**

5.	Clause 17 HVDC Station Equipment	… (a) IGBT/BIGT valves and its accessories e.g. damping and grading circuits, converter cooling system etc.; …	… (a) IGBT/BIGT valves and its accessories e.g. damping and grading circuits **(if applicable),** converter cooling system etc.; …