

**CORRIGENDUM NO. 4 DATED 22.12.2024 TO
BIDDING DOCUMENT**

TENDER NO.: TUSCO/LSP/PEI/2024-25/07Tender ID: 2024 THDC 838065 1

Subject: “220kV AIS Substation Package for construction of two Pooling substations (PSS1 & PSS2) of 33/220kV capacity and 220 kV transmission lines up to 220kV side (incomer) of 220/400/765 kV Grid Sub-station (GSS) to evacuate power from each 300MW capacity block”

This is to inform all prospective bidders that the following corrigendum with respect to the subject tender has been issued as below:

Provision as per tender document	Change/Modification/Clarification Incorporated
<p>Annexure-A BDS & other associated clauses 1.0 Technical Experience:</p> <p>1.1 The bidder must have at least <u>three years’ experience</u> (ending prior to the NIT) of providing similar type of works to Central/ State Government/ PSUs/ Nationalised Banks/ Reputed Organisations. works executed with list of such Central/ State/ PSUs/ Nationalized Banks with duration of works shall be furnished. The bidder must have successfully executed/completed similar works (definition of “similar works” should be clearly defined), over the last seven years: -</p> <ol style="list-style-type: none"> 1. Three similar completed works costing not less than the amount equal to 40% (forty percent) of the estimated cost *; Or 2. Two similar completed works costing not less than the amount equal to 50% (fifty percent) of the estimated cost; Or 3. One similar completed work costing not less than the amount equal to 80% (eighty percent) of the estimated cost. <p>In above context, Similar works shall mean: Bidder must have supplied, erected, tested, and commissioned as a prime contractor** under a single contract, at least <u>two (2) nos. AIS^ Circuit Breaker</u> equipped bays of 220kV or above voltage level in one (1) substation or switchyard during last seven (7) years and these bays must be in satisfactory operation# as on the originally scheduled date of bid opening as per BDS.</p> <p>The similarity of work shall be pre-defined based on the physical size, complexity, methods/ technology and/ or other characteristics described, and scope of works. Substantial completion shall be based on 80 (eighty) per cent</p>	<p>Annexure-A BDS & other associated clauses 1.0 Technical Experience:</p> <p>1.1 The bidder must have experience (ending prior to the NIT) of providing similar type of works to Central/ State Government/ PSUs/ Nationalised Banks/ Reputed Organisations. works executed with list of such Central/ State/ PSUs/ Nationalized Banks with duration of works shall be furnished. The bidder must have successfully executed/completed/ substantially completed similar works (definition of “similar works” should be clearly defined), over the last seven years: -</p> <ol style="list-style-type: none"> 1. Three similar completed works costing not less than the amount equal to 40% (forty percent) of the estimated cost *; Or 2. Two similar completed works costing not less than the amount equal to 50% (fifty percent) of the estimated cost; Or 3. One similar completed work costing not less than the amount equal to 80% (eighty percent) of the estimated cost. <p>In above context, Similar works shall mean: Bidder must have supplied, erected, tested, and commissioned as a prime contractor** under a single contract, at least two (2) nos. Circuit Breaker equipped bays of 220kV or above voltage level in one (1) substation or switchyard during last seven (7) years and these bays must be in satisfactory operation# as on the originally scheduled date of bid opening as per BDS.</p> <p>The similarity of work shall be pre-defined based on the physical size, complexity, methods/ technology and/ or other characteristics described, and scope of works. Substantial completion shall be based on 80</p>

<p>(value wise) or more works completed under the contract. For contracts under which the applicant participated as a joint venture member or sub-contractor, only the applicant's share, by value, shall be considered to meet this requirement (in case the details of work of each member of Joint venture not available, then the value of the work done of the member will be considered as per their equity share in the Joint Venture). Certificate for 'substantial completion' of project/work/ asset should contain two parts. Part -I shall contain 'financial value of work done' and part-II shall contain <u>'certificate of functional completion of project/ work/ asset'</u>.</p> <p>Note-1 (*): The estimated cost of the project is INR 1,15,94,81,645.52/-</p> <p>Note-2 (**): In case of works executed under a contract that had been awarded on a Joint Venture, the experience of individual Joint Venture partner shall be considered limited to the scope of that partner under the said contract.</p> <p>Note-3 (^): <u>AIS means Air Insulated Substation</u></p> <p>Note-4 (#): Satisfactory operation means certificate issued by the Employer certifying the operation without any adverse remark.</p> <p>Note-5: In case bidder is a holding company, the technical experience referred to in clause 1.1 shall be of that holding company only (i.e. excluding its subsidiary/group companies). In case bidder is a subsidiary of a holding company, the technical experience referred to in clause 1.1 shall be of that subsidiary company only (i.e. excluding its holding company).</p>	<p>(eighty) per cent (value wise) or more works completed under the contract. For contracts under which the applicant participated as a joint venture member or sub-contractor, only the applicant's share, by value, shall be considered to meet this requirement (in case the details of work of each member of Joint venture not available, then the value of the work done of the member will be considered as per their equity share in the Joint Venture). Certificate for 'substantial completion' of project/work/ asset should contain two parts. Part -I shall contain 'financial value of work done' and part-II shall contain 'certificate of functional completion (i.e., satisfactory operation) of project/ work/ asset'.</p> <p>Note-1 (*): The estimated cost of the project is INR 1,15,94,81,645.52/-</p> <p>Note-2 (**): In case of works executed under a contract that had been awarded on a Joint Venture, the experience of individual Joint Venture partner shall be considered limited to the scope of that partner under the said contract.</p> <p>Note-3 (#): Satisfactory operation means certificate issued by the Employer certifying the operation without any adverse remark.</p> <p>Note-4: In case bidder is a holding company, the technical experience referred to in clause 1.1 shall be of that holding company only (i.e. excluding its subsidiary/group companies). In case bidder is a subsidiary of a holding company, the technical experience referred to in clause 1.1 shall be of that subsidiary company only (i.e. excluding its holding company).</p>
<p>1.3 Joint Venture-Firms</p> <p>1.3.1 In case a bid is submitted by a Joint Venture (JV) of two or more firms as partners, joint venture must comply the following minimum criteria:</p> <p>i) All the partners of the JV shall meet individually the Financial Position criteria given at 1.2 (a) above.</p> <p>ii) The lead partner shall meet, not less than 50% of the Financial Position criteria given at para 1.2 (b) & (c) above and <u>100% of the Technical Experience criteria given at 1.1 above.</u></p> <p>iii) Each of the other partner (s) individually</p> <p>a) shall meet not <u>less than 25% of the Financial Position criteria given at 1.2 (b) & (c) above.</u></p>	<p>1.3 Joint Venture-Firms</p> <p>1.3.1 In case a bid is submitted by a Joint Venture (JV) of two or more firms as partners, joint venture must comply the following minimum criteria:</p> <p>i) All the partners of the JV shall meet individually the Financial Position criteria given at 1.2 (a) above.</p> <p>ii) The lead partner shall meet, not less than 50% of the Financial Position criteria given at para 1.2 (b) & (c) above and 50% of the Technical Experience criteria given at 1.1 above.</p> <p>iii) Each of the other partner (s) individually</p> <p>a) shall meet not less than, 50% of the Technical</p>

<p>b) must have supplied, erected, tested and commissioned as a prime contractor* under a single contract, at least <u>one (1) no. AIS^ Circuit Breaker</u> equipped bay of 220kV or above voltage level in one substation or switchyard during last seven (7) years and this bay must be in satisfactory operation# as on the date of bid opening mentioned above.</p> <p>iv) The joint Venture must satisfy collectively the <u>Criteria of clause 1.2(b) & (c) above</u> for which purpose the relevant figure of average annual turnover and liquid assets / credit facilities for each of the partners of the JV shall be added together to arrive at Joint Venture total capacity.</p>	<p>Experience criteria given at 1.1 above 50% of the Financial position criteria given at 1.2(b) and 25% of the Financial Position criteria given at 1.2 (c) above.</p> <p>b) must have supplied, erected, tested and commissioned as a prime contractor* under a single contract, at least one (1) no. Circuit Breaker equipped bay of 220kV or above voltage level in one substation or switchyard during last seven (7) years and this bay must be in satisfactory operation# as on the date of bid opening mentioned above.</p> <p>iv) The joint Venture must satisfy collectively the Criteria of clause 1.1, 1.2(b) & (c) above for which purpose the relevant figure of experience, average annual turnover and liquid assets / credit facilities for each of the partners of the JV shall be added together to arrive at Joint Venture total capacity.</p>
<p>Please confirm private sector experiences are considered for this package or only Govt. sector experiences are considered.</p>	<p>“Reputed Organisations” mean reputed Private organisations as well.</p>

All other terms & conditions of the tender shall remain unchanged.

The complete Tender Document is available on Central Public Procurement (CPP) Portal Website: <https://eprocure.gov.in/eprocure/app>.

Subsequent Clarification /Amendment/ Corrigendum, if any, shall be uploaded on the above website only.

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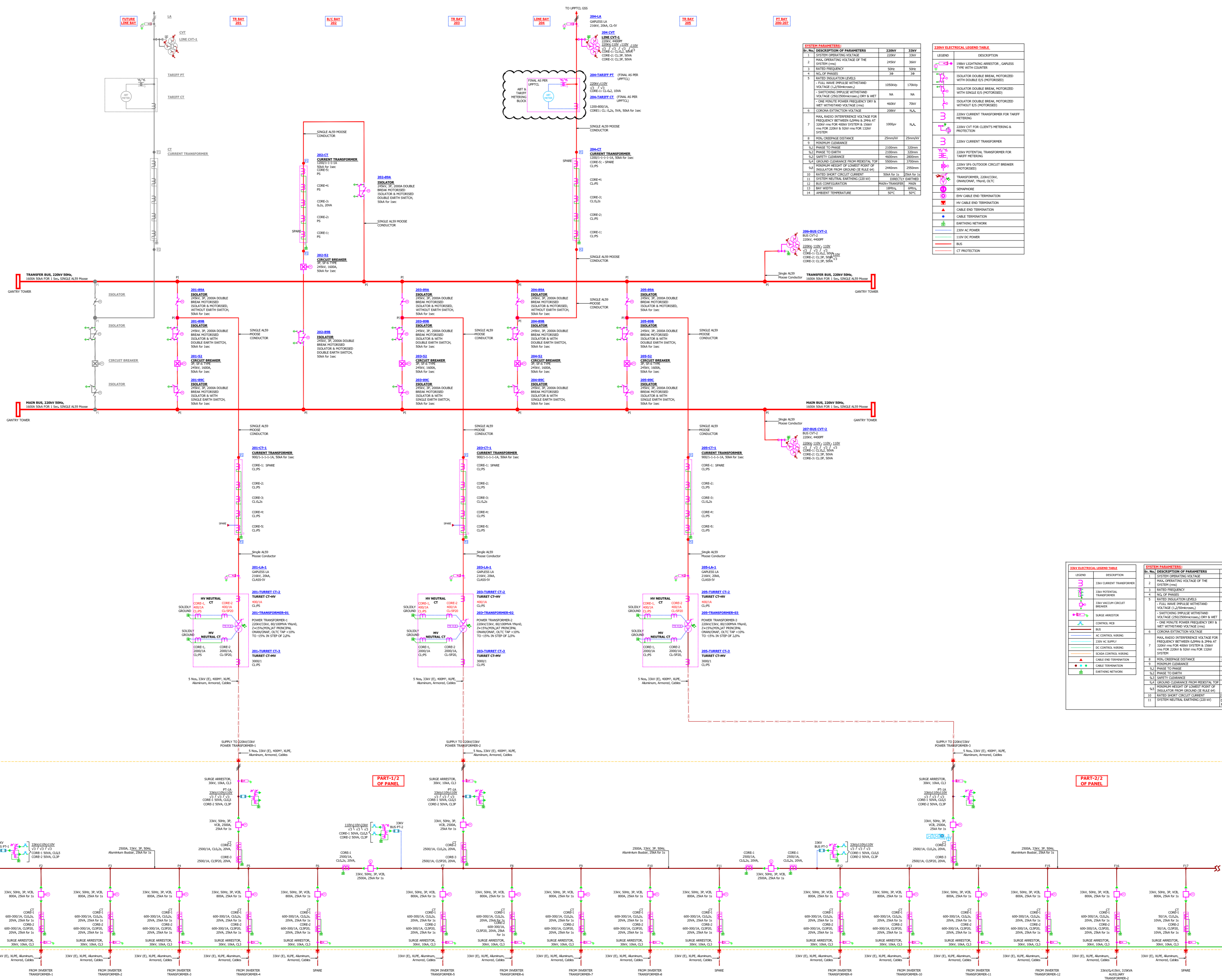
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Clarification/Response to Pre-Bid queries for “220kV AIS Substation Package for construction of two Pooling substations (PSS1 & PSS2) of 33/220kV capacity and 220 kV transmission lines up to 220kV side (incomer) of 220/400/765 kV Grid Sub-station (GSS) to evacuate power from each 300MW capacity block”.

Tender ID: 2024_THDC_838065_1 Tender No.: TUSCO/LSPP/IPEI/2024-25/07

Sl. No.	Provision as per tender document	Clarification/Change/Modification requested by bidder	Response by TUSCO Ltd.
1.	<p>Technical Criteria: The bidder must have at least three years’ experience (ending prior to the NIT) of providing similar type of works to Central/ State Government/ PSUs/ Nationalised Banks/ Reputed Organisations. works executed with list of such Central/ State/ PSUs/ Nationalized Banks with duration of works shall be furnished. The bidder must have successfully executed/completed similar works (definition of “similar works” should be clearly defined), over the last seven years: -</p> <ol style="list-style-type: none"> 1. Three similar completed works costing not less than the amount equal to 40% (forty percent) of the estimated cost *; or 2. Two similar completed works costing not less than the amount equal to 50% (fifty percent) of the estimated cost; or 3. One similar completed work costing not less than the amount equal to 80% (eighty percent) of the estimated cost. 	<p>For 220KV AIS Substation Must have constructed <u>50% of the number of S/s under the Scope</u> (Round off to nearest integer) in the same voltage or higher Voltage”</p>	<p>The pre-qualification criteria shall be as per the Corrigendum.</p>
2.	<p>In above context, Similar works shall mean: Bidder must have supplied, erected, tested, and commissioned as a prime contractor** under a single contract, at least two (2) nos. AIS^ Circuit Breaker equipped bays of 220kV or above voltage level in one (1) substation or switchyard during last seven (7) years and these bays must be in satisfactory operation# as on the originally scheduled date of bid opening as per BDS.</p>	<p>Bidder must have supplied, erected, tested, and commissioned as a prime contractor/Conractor/Partner under a single contract, at least two (2) nos. AIS/ GIS ^ Circuit Breaker equipped bays of 220kV or above voltage level in one (1) substation or switchyard during last seven (7) years and these bays must be in satisfactory operation# as on the originally scheduled date of bid opening as per BDS.</p>	<p>The pre-qualification criteria shall be as per the Corrigendum.</p>

3.	<p>According to QR, The bidder must have at least three years' experience (ending prior to the NIT) of providing similar type of works to Central/ State Government/ PSUs/ Nationalised Banks/ Reputed Organisations works executed with list of such Central/ State/ PSUs/ Nationalized Banks with duration of works shall be furnished.</p> <p>Bidder must have supplied, erected, tested, and commissioned as a prime contractor** under a single contract, at least two (2) nos. AIS^ Circuit Breaker equipped bays of 220kV or above voltage level in one (1) substation or switchyard during last seven (7) years and these bays must be in satisfactory operation# as on the originally scheduled date of bid opening as per BDS.</p>	<p>Please confirm private sector experiences are considered for this package or only Govt. sector experiences are considered.</p>	<p>Reputed Organisations mean reputed Private organisations as well.</p>
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Sl. No.	DESCRIPTION OF PARAMETERS	220kV	33kV
1	SYSTEM OPERATING VOLTAGE	220kV	33kV
2	MAX. OPERATING VOLTAGE OF THE SYSTEM (Um)	245kV	39kV
3	RATED FREQUENCY	50Hz	50Hz
4	NO. OF PHASES	3Φ	3Φ
5	TESTED INSULATION LEVELS		
	- FULL WAVE IMPULSE WITHSTAND VOLTAGE (U _{imp})	1050kVp	170kVp
	- SWITCHING IMPULSE WITHSTAND VOLTAGE (U _{swi})	NA	NA
	- ONE MINUTE POWER FREQUENCY DRY & WET WITHSTAND VOLTAGE (Um)	400kV	70kV
6	CORONA CT FACTOR VOLTAGE	200kV	N/A
7	MAX. RADIO INTERFERENCE VOLTAGE FOR FREQUENCY BETWEEN 0.3MHz & 3MHz FOR 400V SYSTEM & 15kV/m FOR 220kV & 33kV FOR 120kV SYSTEM	1000µV	N/A
8	MIN. CLEARANCE DISTANCE	25mm/1kV	25mm/1kV
9	MINIMUM CLEARANCE		
U ₁	PHASE TO PHASE	3200mm	3200mm
U ₂	PHASE TO EARTH	2200mm	3200mm
U ₃	SAFETY CLEARANCE	9000mm	1800mm
U ₄	GROUND CLEARANCE FROM PEDESTAL TOP	3000mm	3200mm
U ₅	MINIMUM HEIGHT OF CONCRETE FOOTING OF ISOLATOR FROM GROUND (IE 645.04)	2400mm	2500mm
10	RATED SHORT CIRCUIT CURRENT	50kA for 1s	25kA for 1s
11	SYSTEM NEUTRAL EARTHING (SNE)	RESISTIVE EARTHED	DIRECTLY EARTHED
12	BUS CONFIGURATION	MAIN TRANSFER	MAIN
13	BUS WIDTH	1800mm	600mm
14	AMBIENT TEMPERATURE	50°C	50°C

LEGEND	DESCRIPTION
	220kV CURRENT TRANSFORMER
	33kV CURRENT TRANSFORMER
	220kV POTENTIAL TRANSFORMER
	33kV POTENTIAL TRANSFORMER
	220kV OUTDOOR CIRCUIT BREAKER
	33kV OUTDOOR CIRCUIT BREAKER
	220kV ISOLATOR
	33kV ISOLATOR
	220kV SURGE ARRESTOR
	33kV SURGE ARRESTOR
	220kV BUS
	33kV BUS
	220kV CT PROTECTION
	33kV CT PROTECTION
	AC CONTROL WINDING
	DC CONTROL WINDING
	EARTHING NETWORK
	220kV AC POWER
	33kV DC POWER
	BUS
	CT PROTECTION

LEGEND	DESCRIPTION
	220kV CURRENT TRANSFORMER
	33kV CURRENT TRANSFORMER
	220kV POTENTIAL TRANSFORMER
	33kV POTENTIAL TRANSFORMER
	220kV OUTDOOR CIRCUIT BREAKER
	33kV OUTDOOR CIRCUIT BREAKER
	220kV ISOLATOR
	33kV ISOLATOR
	220kV SURGE ARRESTOR
	33kV SURGE ARRESTOR
	220kV BUS
	33kV BUS
	220kV CT PROTECTION
	33kV CT PROTECTION
	AC CONTROL WINDING
	DC CONTROL WINDING
	EARTHING NETWORK
	220kV AC POWER
	33kV DC POWER
	BUS
	CT PROTECTION

TUSCO LIMITED
दुस्को लिमिटेड

CONSULTANT:
GERMI

PROJECT:
GUJARAT ENERGY RESEARCH AND MANAGEMENT INSTITUTE

DRAWING TITLE:
LALLPUR UHREPP (600 MW SOLAR PARK)

DRAWING NO.:
01-PS-ESLD-04

REVISION NO.:
01

REVISION DATE:
01-11-2024

PROJECT NO.:
01-PS-ESLD-04

DRAWING NO.:
01-PS-ESLD-04

REVISION NO.:
01

REVISION DATE:
01-11-2024

DRAWING SCALE:
R4 (SHEET 1 OF 3)

REV. NO.	DATE	DESCRIPTION	DRN BY	CHKD BY
R4	29-10-24	REVISED AS PER COMMENTS	TP	AP
R3	18-10-24	REVISED AS PER COMMENTS	TP	AP
R2	12-10-24	REVISED FOR MAIN & TRANSFER BUS	TP	AP
R1	23-09-24	FOR TENDER	TP	AP
RD	13-09-24	FOR TENDER	TP	AP

PREPARED: APPROVAL
 CHECKED: TENDER
 GFC
 CONCEPT
 DETAILS