

Response to Bidder's Queries

**REQUEST FOR SELECTION OF SOLAR PROJECT DEVELOPER(S) FOR SETTING UP 600 MW GRID CONNECTED SOLAR PV POWER PROJECTS ON BUILD-OWN-OPERATE BASIS
IN JHANSI SOLAR PARK, UTTAR PRADESH**

2.0: Response to bidders' queries

S.No.	Subject	Document	Clause as RfS	Query/recommendations of bidders	TUSCO's Response
1	Financial Closure	RFS, Clause 13	The SPDs shall achieve Financial Closure within 03 (Three) months from the Effective Date of the Power Purchase Agreement (PPA) i.e. up to 180 days from LOA; or 09 months from LoA awarded by TUSCO, which ever is later. In any case, maximum time allowed for FC shall be 9 months from LoA.	The bidder requested to extend the timeline of Financial closure to at least 06 months from the Effective Date of the Power Purchase Agreement (PPA).	Existing provisions shall prevail.
2	Clarity on terms	RFS, Clause 8	8.2. Annual Park O&M Charges payable by SPD to SPPD shall be as per their Bid: 8.2.(1). Lower limit of Annual Park O&M Charges : INR 3.72 Lakh/MW + GST (With 5% annual escalation)	The bidder requested clarity regarding the two different terms used in RfS for the same purpose "Annual Park O&M Charges" and "Annual Park Charges" at different instances.	The term "Annual Park O&M Charges" of clause 8.2 shall be read/referred as "Annual Park Charges"
3	EMD exemption for MSME companies	RFS, Clause 10	Earnest Money Deposit (EMD) of INR 1,37,000/ MW (Rs. One Lakhs Thirty-Seven Thousand per MW) Project in the form of Bank Guarantee according to Format 7.3A and valid for a period of ninety (90) days beyond the validity of the Bid from the last date of bid submission, shall be submitted by the Bidder along with their bid, failing which the bid shall be summarily rejected.	The bidder requested for exemption of the Bid Processing fee/ and EMD for MSME companies.	RFS provision shall prevail. Guidelines of Govt. India shall be followed.

Corrigendum/Clarification to RFS and Bid documents

Corrigendum/Clarification to RFS and Bid documents for RFS No: 01 /TUSCO/Jhansi Solar Project/RFS /2024 Tender ID- 2024_THDC_822311_1

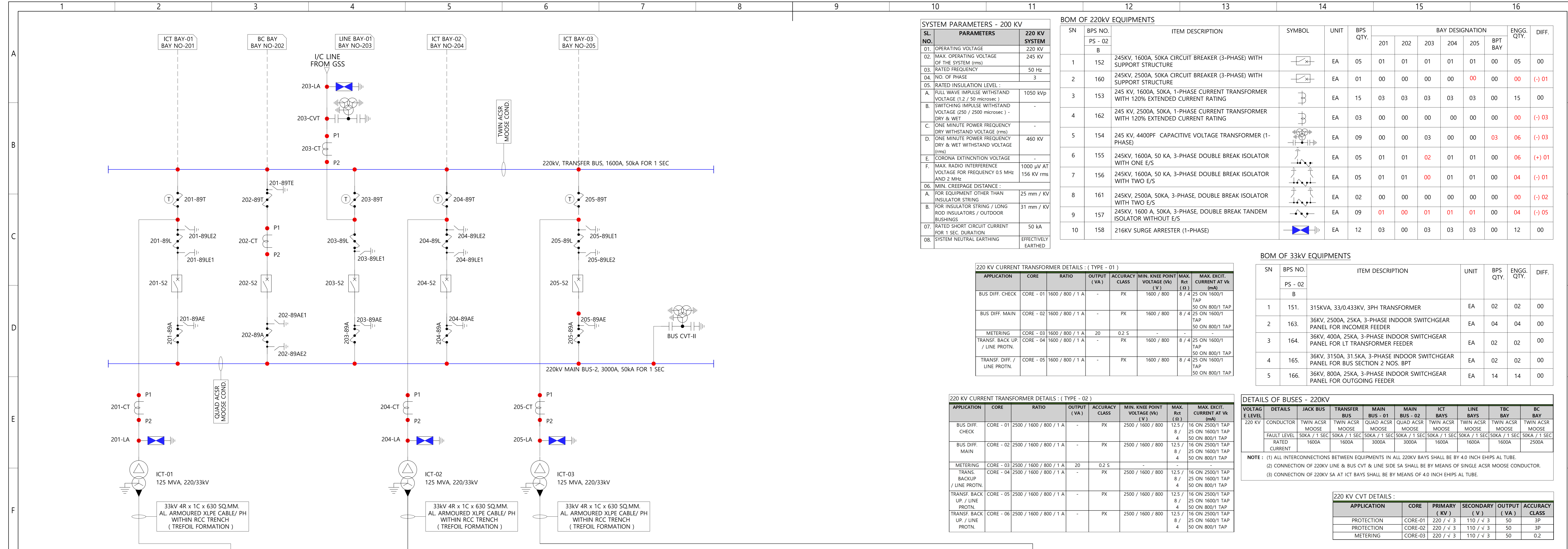
Sl.No.	Page No.	Document	Clause	Existing Clause	Modified Clause
1	4	RFS	h	INR 1,37,000/ MW to be submitted either through Bank Guarantee/POI from REC/IREDA/PFC (in lieu of BG) in favour of TUSCO Limited, along with the response to RFS	INR 1,10,570/ MW to be submitted either through Bank Guarantee/POI from REC/IREDA/PFC or other acceptable security instrument (in lieu of BG) in favour of TUSCO Limited, along with the response to RFS
2	4	RFS	i	INR 3,42,000/MW or as amended later on, in form of BG/POI by IREDA/REC/PFC in lieu of PBG in favour of TUSCO Limited, post selection of successful bidder.	INR 2,76,425/MW or as amended later on , in form of BG/POI by IREDA/REC/PFC or other acceptable security instrument, in lieu of PBG in favour of TUSCO Limited, post selection of successful bidder.
3	9	RFS	24	“INTERNAL POWER EVACUATION INFRASTRUCTURE” shall mean the Pooling substations and Transmission lines at suitable voltage up to the STU Grid Substation and the designated Line bays at STU Grid Substation. In context of 600 MW Jhansi SPP, it shall include i) ii) 2 No.s 300 MW Pooling Substations (with 3*125 MVA 220/33 kV Transformer, 3 Transformer bays, Main-I, Main-II, Transfer Bus and 220 kV line bays for each PSS) Double Circuit 220 kV Transmission lines from each PSS to GSS including 220 kV Line bays at GSS.	“INTERNAL POWER EVACUATION INFRASTRUCTURE” shall mean the Pooling substations and Transmission lines at suitable voltage up to the STU Grid Substation and the designated Line bays at STU Grid Substation. In context of 600 MW Jhansi SPP, it shall include i) 1 No. 350 MW (with 3*125 MVA 220/33 kV Transformer) ,and 1 No. 250 MW Pooling Substations (with 2*125 MVA 220/33 kV Transformer) Single Main & Transfer Bus and Single 220 kV line bay for each PSS (ii) Single Circuit 220 kV Transmission lines from each PSS to GSS including 220 kV Line bays at GSS.
4	20	RFS	5	Development, operation and maintenance of Internal Power Evacuation Infrastructure, which shall include Pooling Substations and transmission lines from Pooling substation to STU Grid Substation will be in scope of SPPD (TUSCO)	Development of Internal Power Evacuation Infrastructure, which shall include Pooling Substations and transmission lines from Pooling substation to STU Grid Substation will be in scope of SPPD (TUSCO). Operation, maintenance, upgradation etc of Internal Power Evacuation Infrastructure shall be in scope of SPD for the duration of the term of ISA/Project. The Infrastructure shall be handed over to SPD upon commissioning only for such scope, and shall continue to remain under the ownership of SPPD.
5	22	RFS	10.1	Earnest Money Deposit (EMD) of INR 1,37,000/ MW (Rs. One Lakhs Thirty-Seven Thousand per MW) Project in the form of Bank Guarantee according to Format 7.3A and valid for a period of ninety (90) days beyond the validity of the Bid from the last date of bid submission, shall be submitted by the Bidder along with their bid, failing which the bid shall be summarily rejected.	Earnest Money Deposit (EMD) of INR 1,10,570/ MW (Rs. One Lakhs Ten Thousand Five hundred seventy per MW) in the form of Bank Guarantee according to Format 7.3A or other acceptable security instruments and valid for a period of ninety (90) days beyond the validity of the Bid from the last date of bid submission, shall be submitted by the Bidder along with their bid, failing which the bid shall be summarily rejected.
6	23	RFS	11.1	Bidders selected by TUSCO Limited based on this RFS shall submit Performance Guarantee for a value @ INR 3,42,000/ MW within thirty (30) days of issue of Letter of Award.	Bidders selected by TUSCO Limited based on this RFS shall submit Performance Guarantee for a value @ INR 2,76,425/MW within thirty (30) days of issue of Letter of Award.
7	45	RFS	b.2	The Bidder including its Parent, Affiliate or Ultimate Parent or any Group Company will have to submit a single bid (single application) quoting Annual Park Charges per MW for the applied capacity. The Price in Lakhs/MW/Year has to be quoted up to two places of decimal only. If it is quoted with more than two digits after decimal, it shall be ignored after first two decimal places.	The Bidder including its Parent, Affiliate or Ultimate Parent or any Group Company will have to submit a single bid (single application) quoting Annual Park Charges per MW for the quoted capacity. The Price in Lakhs/MW/Year has to be quoted up to five places of decimal. If it is quoted with more than five digits after decimal, it shall be ignored after first five decimal places. In case Annual Park Charges is quoted up to less than five places of decimal digits, other remaining decimal digits (up to five places) would be assumed to be zero.
8	46	RFS	b.2 (V)	Minimum value (Floor limit) and Maximum value (Ceiling limit) of quoted Annual Park Charges shall be INR 3.72 Lakhs/MW/Year and INR 3.82 Lakhs/MW/Year.	Minimum value (Floor limit) and Maximum value (Ceiling limit) of quoted Annual Park Charges shall be INR 0.97180 Lakhs/MW/Year and INR 1.03450 Lakhs/MW/Year.

9	46	RFS	b.3	In this step, evaluation will be carried out for Project based on Annual park charges quoted by Bidders. The Park charges has to be more than or equal to INR 3.72 Lakhs/ MW/Year and less than or equal to INR 3.82 Lakhs/MW/Year. Those bids where annual park charges quoted is less than INR 3.72 Lakhs/MW/Year, shall be summarily rejected, while bids where Annual park charges is more than INR 3.82 Lakhs/MW/Year, shall be considered as INR 3.82 Lakhs/MW/Year only.	In this step, evaluation will be carried out for Project based on Annual park charges quoted by Bidders. The Park charges has to be more than or equal to INR 0.97180 Lakhs/MW/Year and less than or equal to INR 1.03450 Lakhs /MW/Year . Those bids where annual park charges quoted is less than INR 0.97180 Lakhs/MW/Year , shall be summarily rejected, while bids where Annual park charges are more than INR 1.03450 Lakhs/MW/Year , shall be considered as INR 1.03450 /MW/Year only.
10	50	RFS	3	The SPPD shall undertake the following activities to achieve the objectives of speedy establishment and implementation of Jhansi Solar Park in Uttar Pradesh. a. Develop, plan, execute, implement, finance, operate and maintain the Solar Park.	The SPPD shall undertake the following activities to achieve the objectives of speedy establishment and implementation of Jhansi Solar Park in Uttar Pradesh. a. Develop, plan, execute, implement, finance the Solar Park. The Park shall be operated and maintained by SPD(s).
11	51	RFS	4	The scope matrix indicating roles and responsibilities of SPPD and SPD are indicated on the table below: - O & M Services of common park facilities provided by the SPPD like roads, internal power evacuation, transmission line, fencing etc. : SPPD	The scope matrix indicating roles and responsibilities of SPPD and SPD are indicated on the table below: - O & M Services of common park facilities/Infrastructures provided by the SPPD like roads, internal power evacuation, : SPD transmission line, fencing etc. Note: In the event of more than one bidder becoming successful, and Project being executed by more than one SPD, they shall at all times coordinate, cooperate, discuss among themselves and accordingly finalise & execute the scope of Operation and Maintenance of the Solar Park Infrastructures and facilities. After mutual discussion, one of the SPD(s) will be designated as Lead SPD for effective and efficient O&M of the Park and coordination with various stakeholder. Such mutually agreed scope shall be shared with SPPD time to time.
12	89	RFS	Format 7.10	Price should be in Indian Rupee in Lakhs/MW/Year @ 5% annual escalation, up to two places of decimals only.	Price should be in Indian Rupee in Lakhs/MW/Year up to five places of decimals, with 5% annual escalation,
13	94	RFS	SLD		Revised SLD is enclosed. And also shared on the Data Room (intimated earlier via corrigendum -4)
14	95	RFS	5.4	The O&M of internal power evacuation system is in the scope of SPPD.	The O&M of internal power evacuation system is in the scope of SPD(s). SPD(s)/ Lead SPD shall carry out the same at its own cost
15	97	RFS	8.1	Charges towards Solar Park: The below mentioned charges are payable by the selected SPDs to the SPPD (TUSCO). 8.1. One-time Charges while or before signing of agreements with SPPD: One-time Charges: Upfront Solar Park Development Charges, Local Area Development charges, Advance Land-lease rent charges in lieu of Land lease rent up to FY 2030-31. - INR 29.25 Lakhs/MW + GST	Charges towards Solar Park: The below mentioned charges are payable by the selected SPDs to the SPPD (TUSCO). 8.1. One-time Charges while or before signing of agreements with SPPD: One-time Charges: Upfront Solar Park Development Charges, Local Area Development charges, Advance Land-lease rent charges in lieu of Land lease rent up to FY 2030-31. - INR 36.58 Lakhs/MW + GST
16	97	RFS	8.2	8.2. Annual Park O&M Charges payable by SPD to SPPD shall be as per their Bid: Lower limit of Annual Park O&M Charges - INR 3.72 Lakh/MW + GST (With 5% annual escalation)	8.2. Annual Park Charges payable by SPD to SPPD shall be as per their submitted Bid: Lower limit of Annual Park Charges - INR 0.97180 Lakhs/MW/Year + GST (With 5% annual escalation)

17		Response to Pre-bid queries	PPA(s)/PSA(s)/ B i-lateral arrangements and its Timeline	The successful Bidder for the Projects selected based on this RFS are required to have their own PPA/PSA/Bi-lateral arrangement for sale of Solar Power generated within the solar park with their respective power procurer within 180 days of the issuance of LoA. Those already having PPA/PSA/Bi-lateral arrangement are also eligible and shall be given preference. Those seeking further extension in obtaining PPA shall have to submit Bank Guarantee of INR 0.34 Lakh/MW/Month. Such extension can be granted for maximum 3 (three) months. The BG which shall be released after 30 days of submission of proofs of PPA. Effective date of PPA shall not be extended due to such extension in time.	The successful Bidder for the Projects selected based on this RFS are required to have their own PPA/PSA/Bi-lateral arrangement for sale of Solar Power generated within the solar park with their respective power procurer within 180 days of the issuance of LoA. Those already having PPA/PSA/Bi-lateral arrangement are also eligible and shall be given preference. Those seeking further extension in obtaining PPA shall have to submit Bank Guarantee of INR 0.27 Lakh/MW/Month . Such extension can be granted for maximum 3 (three) months. The BG which shall be released after 30 days of submission of proofs of PPA. Effective date of PPA shall not be extended due to such extension in time.
18		Response to Pre-bid queries	Availability of Internal Power Evacuation system	TUSCO shall construct, operate and maintain Internal Power Evacuation Infrastructure for Generators as per best Industry practices. Therefore it is to be treated as Dedicated Transmission System. TUSCO shall strive to achieve above 98% availability of Internal Power Evacuation System during solar hours (8AM to 6PM) in a year. In case of reduction in availability of Internal Power Evacuation system during solar hours below 98%, then for each 1% of such reduction in availability, the annual park charges payable by the SPD to TUSCO shall be reduced by 0.5%. No separated compensation shall be provided to SPD by TUSCO in this regard.	TUSCO shall construct and commission the Internal Power Evacuation Infrastructure for Generators as per Industry practices. Further operation, repair, maintenance, upgradation etc. as required shall be carried out by SPD at its own cost for the tenure of Project/term of ISA. No compensation shall be provided to SPD by TUSCO towards unavailability of Internal Power Evacuation Infrastructure post handover, on any account.
19		ISA	3.1	Approvals: TUSCO Ltd. shall obtain all necessary statutory and non-statutory clearances required for developing and maintaining the Solar Park .	Approvals: TUSCO Ltd. shall obtain all necessary statutory and non-statutory clearances required for developing the Solar Park .
20		ISA	3.3.1	TUSCO Ltd. shall construct, commission, operate and maintain 33/220 kV Pooling Substation and 220 kV Transmission Lines (except inter-connection facilities) to connect the Pooling Substation with STU Grid Substation. Inter-connection facilities shall be operated and maintained by STU in line with UPERC Guideline	TUSCO Ltd. shall construct & commission and SPD/Lead SPD shall operate & maintain 33/220 kV Pooling Substation and 220 kV Transmission Lines (except inter-connection facilities) to connect the Pooling Substation with STU Grid Substation. Inter-connection facilities shall be operated and maintained by STU in line with UPERC Guideline.
21		ISA	3.3.2	The existing bituminous Public Works Department ('PWD') roads passing through the Project site are also entitled to use for development of the project. Accordingly, TUSCO Ltd. shall strengthen the PWD approach roads and any damages occurred to these roads during construction shall be repaired by SPD at their own cost.	The existing bituminous Public Works Department ('PWD')/village roads/Govt. roads passing through the Project site may be used for the development of the project. Accordingly, the PWD/concerned department of GoUP shall strengthen/repair or construct these roads.
22		ISA	3.3.2	Additionally, TUSCO Ltd. shall also construct and maintain the access roads to the Park and PSS.	Additionally, TUSCO Ltd. shall also construct and SPD shall maintain the access roads to the Park and PSS
23		ISA	3.3.3	Adequate street lighting arrangement along the roads developed by TUSCO Ltd., Lighting within Pooling Substation area shall be provided and maintained by TUSCO Ltd.	Adequate street lighting arrangement along the roads developed by TUSCO Ltd., lighting within Pooling Substation area shall be provided by SPPD. O&M of the same shall be carried out by SPD.
24		ISA	3.3.5	TUSCO Ltd. shall develop, strengthen, construct and maintain central drainage system, whereas, all internal drainage shall be developed & maintained by SPD, SPD may connect their internal project drains to the existing road drains or drainage developed by TUSCO Ltd.	TUSCO Ltd. shall develop, strengthen, and construct a common drainage system, whereas, all internal drainage shall be developed & maintained by SPD, SPD may connect their internal project drains to the existing road drains or drainage developed by TUSCO Ltd. All these infrastructures shall be maintained by SPD.
25		ISA	4.3 (f)	New Provision	SPD/Lead SPD shall Operate & Maintain all Solar park facilities and infrastructures provided by SPPD as per the Guidelines of GoI/GoUP and best Industry Practices. The SPD/Lead SPD shall share with SPPD all the reports and data pertaining to the Maintenances planned and carried out on Infrastructure. The SPD/Lead SPD shall handover all such Solar Park Infrastructures/facilities to SPPD upon completion of the term/Project life in working condition.

26		ISA	5.1	<p>Pooling Substations & Internal Transmission Line: TUSCO Ltd. shall construct, commission, operate and maintain 33/220 kV Pooling Substation and 220 kV Transmission Lines (except inter-connection facilities at GSS) to connect the Pooling Substation with STU Grid Substation. Inter-connection facilities shall be operated and maintained by STU in line with UPERC Guidelines.</p>	<p>Pooling Substations & Internal Transmission Line: TUSCO Ltd. shall construct & commission and SPD/Lead SPD shall operate and maintain 33/220 kV Pooling Substation and 220 kV Transmission Lines (except inter-connection facilities at GSS) to connect the Pooling Substation with STU Grid Substation. Inter-connection facilities shall be operated and maintained by STU in line with UPERC Guidelines.</p>
27		ISA	6.2	<p>Annual operation and maintenance charges for maintaining the infrastructure pertaining to the Solar Park infrastructure such as Transmission facilities, Establishment charges, various overheads including applicable statutory taxes etc. shall be paid by SPD to TUSCO Ltd. based on the demand raised by TUSCO Ltd. as per the provision of this agreement. Annual park charges of Rs. Lakhs/MW (Rupees Only per MW) including land lease charges calculated as per Detailed Project Report ('DPR'), for MW per annum in the first year which is escalated annually at the rate of% (..... percent) shall be payable by SPD on or before 30th April at the beginning of each financial year during the agreement period. Both the parties agree that in case of any revision of the above mentioned charges, suitable adjustments will be made between the parties. First year annual O&M charges shall be payable by SPD on pro-rata basis within 30 days from the date of raising of Invoice. All applicable taxes on such transaction shall be paid extra to TUSCO Ltd. by SPD within 15 days from the date of issue of invoice in respect of the same by TUSCO Ltd. Additional payments as per applicable Govt. rate if any for the belated payment of all taxes due to non-receipt of the same from SPD shall be borne by SPD.</p>	<p>6.2 (a) Annual Park Charges: Annual Park Charges for the Solar Park shall be paid by SPD to TUSCO Ltd based on the demand raised by TUSCO Ltd. as per the provision of this agreement. Annual park charges of Rs. Lakhs/MW (Rupees Only per MW) plus applicable taxes,duties,cess, etc for MW per annum which is escalated annually at the rate of% (..... percent) shall be payable by SPD on or before 30th April at the beginning of each financial year during the agreement period. Both the parties agree that in case of any revision of the above mentioned charges, suitable adjustments will be made between the parties. First year charges shall be payable by SPD on pro-rata basis within 30 days from the date of raising of Invoice. All applicable taxes on such transaction shall be paid extra to TUSCO Ltd. by SPD within 15 days from the date of issue of invoice in respect of the same by TUSCO Ltd. Additional payments as per applicable Govt. rate if any for the belated payment of all taxes due to non-receipt of the same from SPD shall be borne by SPD.</p> <p>6.2 (b) Annual Land Lease Charges: Annual Lease rent of Rs.per MW (Rupees only) + applicable taxes, duties,cess etc. with escalation of % every years (as per Land Right Use Agreement) for the land handed over to on right to use basis to SPD, for implementation of MW Solar PV based Power Project at GARAUTHA Tehsil, JHANSI, Uttar Pradesh.</p>

**Single Line Diagram for Internal Power Evacuation System for
600 MW Jhansi Solar Park**



SL. NO.	PARAMETERS	220 KV SYSTEM
01.	OPERATING VOLTAGE	220 KV
02.	MAX. OPERATING VOLTAGE OF THE SYSTEM (rms)	245 KV
03.	RATED FREQUENCY	50 Hz
04.	NO. OF PHASE	3
05. RATED INSULATION LEVEL :		
A.	FULL WAVE IMPULSE WITHSTAND VOLTAGE (1.2 / 50 microsec.)	1050 kVp
B.	SWITCHING IMPULSE WITHSTAND VOLTAGE (250 / 2500 microsec.) - DRY & WET	-
C.	ONE MINUTE POWER FREQUENCY DRY WITHSTAND VOLTAGE (rms)	460 KV
D.	ONE MINUTE POWER FREQUENCY WET WITHSTAND VOLTAGE (rms)	-
E.	CORONA EXTINCTION VOLTAGE	-
F.	MAX. RADIO INTERFERENCE VOLTAGE FOR FREQUENCY 0.5 MHz AND 2 MHz	1000 µV AT 156 KV rms
06. MIN. CREEPAGE DISTANCE :		
A.	FOR EQUIPMENT OTHER THAN INSULATOR STRING	25 mm / KV
B.	FOR INSULATOR STRING / LONG ROD INSULATORS / OUTDOOR BUSHINGS	31 mm / KV
07.	RATED SHORT CIRCUIT CURRENT FOR 1 SEC. DURATION	50 KA
08.	SYSTEM NEUTRAL EARTHING	EFFECTIVELY EARTHED

SN	BPS NO.	PS - 02	ITEM DESCRIPTION	SYMBOL	UNIT	BPS QTY.	BAY DESIGNATION					ENGG. QTY.	DIFF.	
							201	202	203	204	205			
1	152	B	245KV, 1600A, 50KA CIRCUIT BREAKER (3-PHASE) WITH SUPPORT STRUCTURE		EA	05	01	01	01	01	01	00	05	00
2	160	B	245KV, 2500A, 50KA CIRCUIT BREAKER (3-PHASE) WITH SUPPORT STRUCTURE		EA	01	00	00	00	00	00	00	00	(-) 01
3	153	B	245 KV, 1600A, 50KA, 1-PHASE CURRENT TRANSFORMER WITH 120% EXTENDED CURRENT RATING		EA	15	03	03	03	03	03	00	15	00
4	162	B	245 KV, 2500A, 50KA, 1-PHASE CURRENT TRANSFORMER WITH 120% EXTENDED CURRENT RATING		EA	03	00	00	00	00	00	00	00	(-) 03
5	154	B	245 KV, 4400PF CAPACITIVE VOLTAGE TRANSFORMER (1-PHASE)		EA	09	00	00	03	00	00	03	06	(-) 03
6	155	B	245KV, 1600A, 50 KA, 3-PHASE DOUBLE BREAK ISOLATOR WITH ONE E/S		EA	05	01	01	02	01	01	00	06	(+) 01
7	156	B	245KV, 1600A, 50 KA, 3-PHASE DOUBLE BREAK ISOLATOR WITH TWO E/S		EA	05	01	01	00	01	01	00	04	(-) 01
8	161	B	245KV, 2500A, 50KA, 3-PHASE, DOUBLE BREAK ISOLATOR WITH TWO E/S		EA	02	00	00	00	00	00	00	00	(-) 02
9	157	B	245KV, 1600 A, 50KA, 3-PHASE, DOUBLE BREAK TANDEM ISOLATOR WITHOUT E/S		EA	09	01	00	01	01	01	00	04	(-) 05
10	158	B	216KV SURGE ARRESTER (1-PHASE)		EA	12	03	00	03	03	03	00	12	00

APPLICATION	CORE	RATIO	OUTPUT (VA)	ACCURACY CLASS	MIN. KNEE POINT VOLTAGE (kV)	MAX. RET. (Ω)	MAX. EXCIT. CURRENT AT Vr (mA)
BUS DIFF. CHECK	CORE - 01	1600 / 800 / 1 A	-	PX	1600 / 800	8 / 4	25 ON 1600/1 TAP
BUS DIFF. MAIN	CORE - 02	1600 / 800 / 1 A	-	PX	1600 / 800	8 / 4	25 ON 1600/1 TAP
METERING	CORE - 03	1600 / 800 / 1 A	20	0.2 S	-	-	25 ON 1600/1 TAP
TRANS. BACK UP / LINE PROTIN.	CORE - 04	1600 / 800 / 1 A	-	PX	1600 / 800	8 / 4	25 ON 1600/1 TAP
TRANS. DIFF. / LINE PROTIN.	CORE - 05	1600 / 800 / 1 A	-	PX	1600 / 800	8 / 4	25 ON 800/1 TAP

SN	BPS NO.	PS - 02	ITEM DESCRIPTION	UNIT	BPS QTY.	ENGG. QTY.	DIFF.
1	151.	B	315KVA, 33/0.433KV, 3PH TRANSFORMER	EA	02	02	00
2	163.	B	36KV, 2500A, 25KA, 3-PHASE INDOOR SWITCHGEAR PANEL FOR INCOMER FEEDER	EA	04	04	00
3	164.	B	36KV, 400A, 25KA, 3-PHASE INDOOR SWITCHGEAR PANEL FOR LT TRANSFORMER FEEDER	EA	02	02	00
4	165.	B	36KV, 3150A, 31.5KA, 3-PHASE INDOOR SWITCHGEAR PANEL FOR BUS SECTION 2 NOS. BPT	EA	02	02	00
5	166.	B	36KV, 800A, 25KA, 3-PHASE INDOOR SWITCHGEAR PANEL FOR OUTGOING FEEDER	EA	14	14	00

APPLICATION	CORE	RATIO	OUTPUT (VA)	ACCURACY CLASS	MIN. KNEE POINT VOLTAGE (kV)	MAX. RET. (Ω)	MAX. EXCIT. CURRENT AT Vr (mA)
BUS DIFF. CHECK	CORE - 01	2500 / 1600 / 800 / 1 A	-	PX	2500 / 1600 / 800	12.5 / 8 / 4	16 ON 2500/1 TAP
BUS DIFF. MAIN	CORE - 02	2500 / 1600 / 800 / 1 A	-	PX	2500 / 1600 / 800	12.5 / 8 / 4	16 ON 2500/1 TAP
METERING	CORE - 03	2500 / 1600 / 800 / 1 A	20	0.2 S	-	-	16 ON 2500/1 TAP
TRANS. BACK UP / LINE PROTIN.	CORE - 04	2500 / 1600 / 800 / 1 A	-	PX	2500 / 1600 / 800	12.5 / 8 / 4	16 ON 2500/1 TAP
TRANS. DIFF. / LINE PROTIN.	CORE - 05	2500 / 1600 / 800 / 1 A	-	PX	2500 / 1600 / 800	12.5 / 8 / 4	16 ON 2500/1 TAP
TRANS. BACK UP / LINE PROTIN.	CORE - 06	2500 / 1600 / 800 / 1 A	-	PX	2500 / 1600 / 800	12.5 / 8 / 4	16 ON 2500/1 TAP

VOLTAGE LEVEL	DETAILS	JACK BUS	TRANSFER BUS	MAIN BUS - 01	MAIN BUS - 02	ICT BAYS	LINE BAYS	TBC BAY	BC BAY
220 KV	CONDUCTOR	TWIN ACSR MOOSE COND.	TWIN ACSR MOOSE COND.	QUAD ACSR MOOSE COND.	QUAD ACSR MOOSE COND.	TWIN ACSR MOOSE COND.	TWIN ACSR MOOSE COND.	TWIN ACSR MOOSE COND.	TWIN ACSR MOOSE COND.
	FAULT LEVEL	50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC
	RATED CURRENT	1600A	1600A	3000A	3000A	1600A	1600A	1600A	2500A

NOTE : (1) ALL INTERCONNECTIONS BETWEEN EQUIPMENTS IN ALL 220KV BAYS SHALL BE BY 4.0 INCH EHPS AL TUBE.
 (2) CONNECTION OF 220KV LINE & BUS CVT & LINE SIDE SA SHALL BE BY MEANS OF SINGLE ACSR MOOSE CONDUCTOR.
 (3) CONNECTION OF 220KV SA AT ICT BAYS SHALL BE BY MEANS OF 4.0 INCH EHPS AL TUBE.

APPLICATION	CORE	PRIMARY (KV)	SECONDARY (V)	OUTPUT (VA)	ACCURACY CLASS
PROTECTION	CORE-01	220 / √ 3	110 / √ 3	50	3P
PROTECTION	CORE-02	220 / √ 3	110 / √ 3	50	3P
METERING	CORE-03	220 / √ 3	110 / √ 3	50	0.2

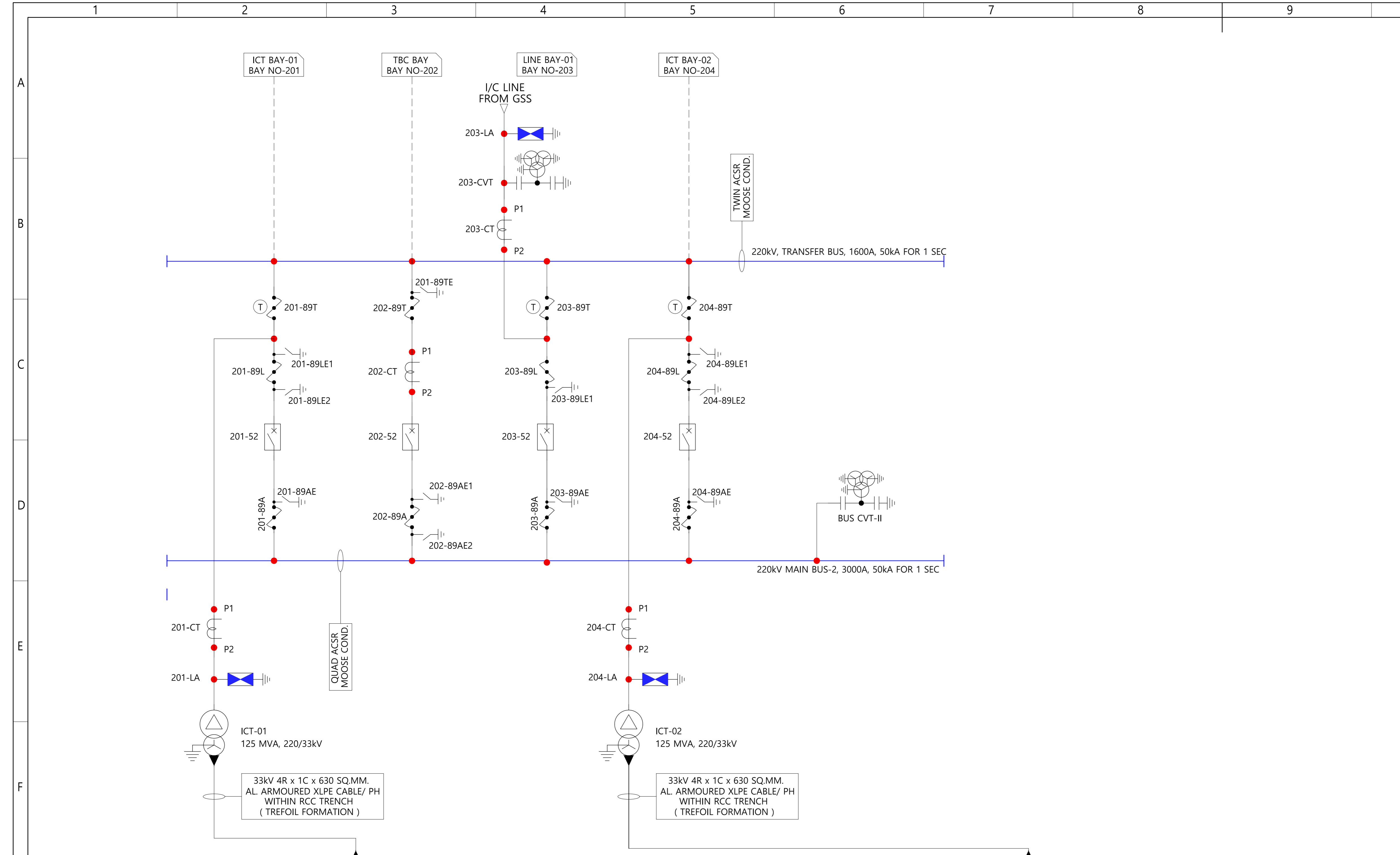
FEEDER NUMBER	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322
FEEDER DESIGNATION :	O/G-1	O/G-2	I/C-1	O/G-3	O/G-4	O/G-5(S)	S.TR-01	BPT1 + B51 + BPT2	O/G-6	O/G-7	I/C-2	O/G-8	O/G-9	O/G-10(S)	BPT3 + B52 + BPT4	O/G-11	I/C-3	O/G-12	O/G-13	O/G-14	I/C-15(S)	S.TR-02
RATED CURRENT :	800A	800A	2500A	800A	800A	800A	400A	2500A	800A	800A	2500A	800A	800A	800A	2500A	800A	2500A	800A	800A	800A	2500A	400A
STC :	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S
IAC FLR :	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S
HIGHEST/NOMINAL SYS. VOLTAGE :	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV
RATIO :	800-400/1	800-400/1	3000-2000/1	800-400/1	800-400/1	800-400/1	-	3000-2000/1	800-400/1	800-400/1	3000-2000/1	800-400/1	800-400/1	800-400/1	3000-2000/1	800-400/1	3000-2000/1	800-400/1	800-400/1	800-400/1	3000-2000/1	40-20/1
ACCURACY CLASS :	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	-	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S
Vk AT MIN.RATIO :	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RATED BURDEN :	20VA	20VA	20VA	20VA	20VA	20VA	-	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	7.5VA
RATIO :	800-400/1	800-400/1	3000-2000/1	800-400/1	800-400/1	800-400/1	-	3000-2000/1	800-400/1	800-400/1	3000-2000/1	800-400/1	800-400/1	800-400/1	3000-2000/1	800-400/1	3000-2000/1	800-400/1	800-400/1	800-400/1	3000-2000/1	40-20/1
ACCURACY CLASS :	5P	5P	5P	5P	5P	5P	-	5P	5P	5P	5P	5P	5P	5P	5P	5P	5P	5P	5P	5P	5P	5P20
Vk AT MIN.RATIO :	400V	400V	-	400V	400V	400V	-	400V	400V	400V	-	400V	400V	400V	-	400V	-	400V	400V	400V	-	-
RATED BURDEN :	20VA	20VA	20VA	20VA	20VA	20VA	-	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	-
RATIO :	N/A	N/A	3000-2000/1	N/A	N/A	N/A	-	3000-2000/1	N/A	N/A	3000-2000/1	N/A	N/A	N/A	3000-2000/1	N/A	3000-2000/1	N/A	N/A	N/A	3000-2000/1	-
ACCURACY CLASS :	N/A	N/A	5P	N/A	N/A	N/A	-	5P	N/A	N/A	5P	N/A	N/A	N/A	5P	N/A	5P	N/A	N/A	N/A	5P	-
Vk AT MIN.RATIO :	N/A	N/A	1500V	N/A	N/A	N/A	-	1500V	N/A	N/A	1500V	N/A	N/A	N/A	1500V	N/A	1500V	N/A	N/A	N/A	1500V	-
RATED BURDEN :	N/A	N/A	20V	N/A	N/A	N/A	-	20VA	N/A	N/A	20VA	N/A	N/A	N/A	20VA	N/A	20V	N/A	N/A	N/A	20V	-
RATIO :	-	-	-	-	-	-	-	(33/√3)/(0.11/√3)	-	-	(33/√3)/(0.11/√3)	-	-	-	(33/√3)/(0.11/√3)	(33/√3)/(0.11/√3)	-	-	-	-	-	-
ACCURACY CLASS :	-	-	-	-	-	-	-	0.5S	-	-	0.5S	-	-	-	0.5S	-	-	-	-	-	-	-
RATIO :	-	-	-	-	-	-	-	(33/√3)/(0.11/√3)	-	-	(33/√3)/(0.11/√3)	-	-	-	(33/√3)/(0.11/√3)	(33/√3)/(0.11/√3)	-	-	-	-	-	-
ACCURACY CLASS :	-	-	-	-	-	-	-	3P	-	-	3P	-	-	-	3P	-	-	-	-	-	-	-
RATED PRIMARY CURRENT :	-	-	-	-	-	-	-	40A	-	-	40A	-	-	-	40A	-	40A	-	-	-	-	-
RATED BURDEN :	-	-	-	-	-	-	-	5VA	-	-	5VA	-	-	-	5VA	-	5VA	-	-	-	-	-

NOTES:-
 01. ALL THE DIMENSIONS ARE IN MILLIMETER UNLESS SPECIFIED OTHERWISE.
 02. SEPARATE EARTHING TRUCKS SHALL BE PROVIDED FOR MAINTENANCE WORK OF 33KV SWITCHGEAR PANELS. TRUCKS SHALL BE SUITABLE FOR EARTHING THE 33KV SWITCHGEAR BUS BARS AS WELL AS OUTGOING AND INCOMING CABLES. TRUCKS SHALL HAVE A VT/ VPI AND AN INTERLOCK TO PREVENT EARTHING OF ANY LIVE CONNECTION. THE EARTHING TRUCKS SHALL IN ADDITION HAVE VISUAL/ AUDIBLE ANNUNCIATION TO WARN THE OPERATOR AGAINST EARTHING OF LIVE CONNECTION.
 03. THE EARTHING DEVICE (TRUCK/SWITCH) SHALL HAVE THE SHORT CIRCUIT WITHSTAND CAPABILITY EQUAL TO THAT OF ASSOCIATED SWITCHGEAR PANEL 4 NO. + 4NC OF AUXILIARY CONTACTS OF THE EARTHING DEVICE SHALL BE PROVIDED FOR INTERLOCKING PURPOSE.
 04. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING -
 I) JHANSI SS- ELECTRICAL LAYOUT PLAN
 II) JHANSI SS- ELECTRICAL LAYOUT SECTION

APPLICABLE FOR PS-02

PROJECT TITLE :
 SUPPLY OF SERVICES CONTRACT 220KV AIS SUBSTATION PACKAGE- SS117 FOR CONSTRUCTION OF 02, 220/33KV, 300MVA POOLING SUBSTATIONS AND 220KV TRANSMISSION LINES ASSOCIATED WITH 600MW JHANSI SOLAR PARK UNDER CONSULTANCY SERVICES OF TUSCO LIMITED.
 NOA/LOA/CONTRACT NO. :
 CC/NT/W-AIS/DOM/A02/23/10564/NOA-1/24-106711/01 & CC/NT/W-AIS/DOM/A02/23/10564/NOA-2/24-106711/02, DATED-27/05/2024
 DRAWING TITLE :
 JHANSI SS- SINGLE LINE DIAGRAM

00	ISSUED	SUBMITTED FOR APPROVAL	23-10-2024
REV. NO.	APPROVAL STATUS	DESCRIPTION	DATED
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			



SL. NO.	PARAMETERS	220 KV SYSTEM
01	OPERATING VOLTAGE	220 KV
02	MAX. OPERATING VOLTAGE OF THE SYSTEM (rms)	245 KV
03	RATED FREQUENCY	50 Hz
04	NO. OF PHASE	3
05	RATED INSULATION LEVEL :	
A.	FULL WAVE IMPULSE WITHSTAND VOLTAGE (1.2 / 50 microsec.)	1050 kvp
B.	SWITCHING IMPULSE WITHSTAND VOLTAGE (250 / 2500 microsec.) - DRY & WET	-
C.	ONE MINUTE POWER FREQUENCY DRY WITHSTAND VOLTAGE (rms)	-
D.	ONE MINUTE POWER FREQUENCY WET WITHSTAND VOLTAGE (rms)	460 KV
E.	CORONA EXTINCTION VOLTAGE	-
F.	MAX. RADIO INTERFERENCE VOLTAGE FOR FREQUENCY 0.5 MHz AND 2 MHz	1000 μV AT 156 KV rms
06	MIN. CREEPAGE DISTANCE :	
A.	FOR EQUIPMENT OTHER THAN INSULATOR STRING	25 mm / KV
B.	FOR INSULATOR STRING / LONG ROD INSULATORS / OUTDOOR BUSHINGS	31 mm / KV
07	RATED SHORT CIRCUIT CURRENT FOR 1 SEC. DURATION	50 KA
08	SYSTEM NEUTRAL EARTHING	EFFECTIVELY EARTHED

SN	BPS NO.	ITEM DESCRIPTION	SYMBOL	UNIT	BPS QTY.	BAY DESIGNATION					ENGG. QTY.	DIFF.
						201	202	203	204	BPT BAY		
1	02	245KV, 1600A, 50KA CIRCUIT BREAKER (3-PHASE) WITH SUPPORT STRUCTURE		EA	05	01	01	01	01	00	04	(-) 01
2	10	245KV, 2500A, 50KA CIRCUIT BREAKER (3-PHASE) WITH SUPPORT STRUCTURE		EA	01	00	00	00	00	00	00	(-) 01
3	03	245 KV, 1600A, 50KA, 1-PHASE CURRENT TRANSFORMER WITH 120% EXTENDED CURRENT RATING		EA	15	03	03	03	03	00	12	(-) 03
4	12	245 KV, 2500A, 50KA, 1-PHASE CURRENT TRANSFORMER WITH 120% EXTENDED CURRENT RATING		EA	03	00	00	00	00	00	00	(-) 03
5	04	245 KV, 4400PF CAPACITIVE VOLTAGE TRANSFORMER (1-PHASE)		EA	09	00	00	03	00	03	06	(-) 03
6	05	245KV, 1600A, 50 KA, 3-PHASE DOUBLE BREAK ISOLATOR WITH ONE E/S		EA	05	01	01	02	01	00	05	00
7	06	245KV, 1600A, 50 KA, 3-PHASE DOUBLE BREAK ISOLATOR WITH TWO E/S		EA	05	01	01	00	01	00	04	(-) 01
8	11	245KV, 2500A, 50KA, 3-PHASE, DOUBLE BREAK ISOLATOR WITH TWO E/S		EA	02	00	00	00	00	00	00	(-) 02
9	07	245KV, 1600 A, 50KA, 3-PHASE, DOUBLE BREAK TANDEM ISOLATOR WITHOUT E/S		EA	09	01	00	01	01	00	03	(-) 06
10	08	216KV SURGE ARRESTER (1-PHASE)		EA	12	03	00	03	03	00	09	(-) 03

APPLICATION	CORE	RATIO	OUTPUT (VA)	ACCURACY CLASS	MIN. KNEE POINT VOLTAGE (V)	MAX. Rct (Ω)	MAX. EXCIT. CURRENT AT V _k (mA)
BUS DIFF. CHECK	CORE - 01	1600 / 800 / 1 A	-	PX	1600 / 800	8 / 4	25 ON 1600/1 TAP
BUS DIFF. MAIN	CORE - 02	1600 / 800 / 1 A	-	PX	1600 / 800	8 / 4	25 ON 1600/1 TAP
METERING	CORE - 03	1600 / 800 / 1 A	20	0.2 S	-	-	-
TRANS. BACK UP / LINE PROT.	CORE - 04	1600 / 800 / 1 A	-	PX	1600 / 800	8 / 4	25 ON 1600/1 TAP
TRANS. DIFF. / LINE PROT.	CORE - 05	1600 / 800 / 1 A	-	PX	1600 / 800	8 / 4	25 ON 1600/1 TAP

SN	BPS NO.	ITEM DESCRIPTION	UNIT	BPS QTY.	ENGG. QTY.	DIFF.
1	01.	315KVA, 33/0.433KV, 3PH TRANSFORMER	EA	02	02	00
2	13.	36KV, 2500A, 25KA, 3-PHASE INDOOR SWITCHGEAR PANEL FOR INCOMER FEEDER	EA	04	03	(-) 01
3	14.	36KV, 400A, 25KA, 3-PHASE INDOOR SWITCHGEAR PANEL FOR LT TRANSFORMER FEEDER	EA	02	02	00
4	15.	36KV, 3150A, 31.5KA, 3-PHASE INDOOR SWITCHGEAR PANEL FOR BUS SECTION 2 NOS. BPT	EA	02	01	(-) 01
5	16.	36KV, 800A, 25KA, 3-PHASE INDOOR SWITCHGEAR PANEL FOR OUTGOING FEEDER	EA	14	10	(-) 04

APPLICATION	CORE	RATIO	OUTPUT (VA)	ACCURACY CLASS	MIN. KNEE POINT VOLTAGE (V)	MAX. Rct (Ω)	MAX. EXCIT. CURRENT AT V _k (mA)
BUS DIFF. CHECK	CORE - 01	2500 / 1600 / 800 / 1 A	-	PX	2500 / 1600 / 800	12.5 / 8 / 4	16 ON 2500/1 TAP
BUS DIFF. MAIN	CORE - 02	2500 / 1600 / 800 / 1 A	-	PX	2500 / 1600 / 800	12.5 / 8 / 4	16 ON 2500/1 TAP
METERING	CORE - 03	2500 / 1600 / 800 / 1 A	20	0.2 S	-	-	-
TRANS. BACKUP / LINE PROT.	CORE - 04	2500 / 1600 / 800 / 1 A	-	PX	2500 / 1600 / 800	12.5 / 8 / 4	16 ON 2500/1 TAP
TRANS. BACK UP / LINE PROT.	CORE - 05	2500 / 1600 / 800 / 1 A	-	PX	2500 / 1600 / 800	12.5 / 8 / 4	16 ON 2500/1 TAP
TRANS. BACK UP / LINE PROT.	CORE - 06	2500 / 1600 / 800 / 1 A	-	PX	2500 / 1600 / 800	12.5 / 8 / 4	16 ON 2500/1 TAP

VOLTAGE LEVEL	DETAILS	JACK BUS	TRANSFER BUS	MAIN BUS - 01	MAIN BUS - 02	ICT BAYS	LINE BAYS	TBC BAY	BC BAY
220 KV	CONDUCTOR	TWIN ACSR MOOSE	TWIN ACSR MOOSE	QUAD ACSR MOOSE	QUAD ACSR MOOSE	TWIN ACSR MOOSE	TWIN ACSR MOOSE	TWIN ACSR MOOSE	TWIN ACSR MOOSE
RATED CURRENT		50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC	50KA / 1 SEC

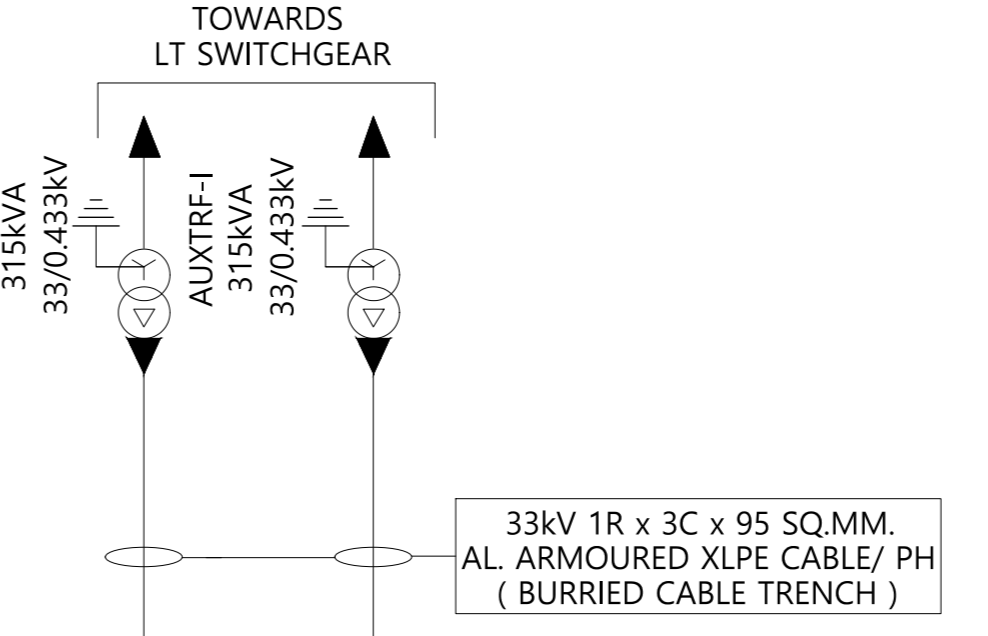
NOTE: (1) ALL INTERCONNECTIONS BETWEEN EQUIPMENTS IN ALL 220KV BAYS SHALL BE BY 4.0 INCH EHPIS AL TUBE.
 (2) CONNECTION OF 220KV LINE & BUS CVT & LINE SIDE SA SHALL BE BY MEANS OF SINGLE ACSR MOOSE CONDUCTOR.
 (3) CONNECTION OF 220KV SA AT ICT BAYS SHALL BE BY MEANS OF 4.0 INCH EHPIS AL TUBE.

APPLICATION	CORE	PRIMARY (KV)	SECONDARY (V)	OUTPUT (VA)	ACCURACY CLASS
PROTECTION	CORE-01	220 / √ 3	110 / √ 3	50	3P
PROTECTION	CORE-02	220 / √ 3	110 / √ 3	50	3P
METERING	CORE-03	220 / √ 3	110 / √ 3	50	0.2

SN	SYMBOL	ITEM DESCRIPTION
01.		315KVA, 33/0.433KV, 3ph TRANSFORMER
02.		33KV BUS PT
03.		33KV VCB
04.		33KV METERING CT
05.		33KV PROTECTION CT

FEEDER NUMBER	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316
FEEDER DESIGNATION :	O/G-1	O/G-2	I/C-1	O/G-3	O/G-4	O/G-5(S)	S.T.R-01	BPT1 + B51 + BPT2	O/G-6	O/G-7	I/C-2	O/G-8	O/G-9	O/G-10(S)	I/C-11(S)	S.T.R-02
RATED CURRENT :	800A	800A	2500A	800A	800A	800A	400A	2500A	800A	800A	2500A	800A	800A	800A	2500A	400A
STC :	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S
IAC FLR :	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S	25.0KA/1S
HIGHEST/NOMINAL SYS. VOLTAGE :	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV	36/33KV
RATIO :	800-400/1	800-400/1	3000-2000/1	800-400/1	800-400/1	800-400/1	-	3000-2000/1	800-400/1	800-400/1	3000-2000/1	800-400/1	800-400/1	800-400/1	3000-2000/1	40-20/1
ACCURACY CLASS :	0.5S	0.5S	-	0.5S	0.5S	0.5S	-	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S	0.5S
V _k AT MIN.RATIO :	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.5VA
RATED BURDEN :	20VA	20VA	20VA	20VA	20VA	20VA	-	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	7.5VA
RATIO :	800-400/1	800-400/1	3000-2000/1	800-400/1	800-400/1	800-400/1	-	3000-2000/1	800-400/1	800-400/1	3000-2000/1	800-400/1	800-400/1	800-400/1	3000-2000/1	40-20/1
ACCURACY CLASS :	5P	5P	-	5P	5P	5P	-	5P	5P	5P	5P	5P	5P	5P	5P	5P20
V _k AT MIN.RATIO :	400V	400V	-	400V	400V	400V	-	400V	400V	400V	400V	400V	400V	400V	400V	-
RATED BURDEN :	20VA	20VA	20VA	20VA	20VA	20VA	-	20VA	20VA	20VA	20VA	20VA	20VA	20VA	20VA	-
RATIO :	N/A	N/A	3000-2000/1	N/A	N/A	N/A	-	3000-2000/1	N/A	N/A	N/A	N/A	N/A	N/A	3000-2000/1	-
ACCURACY CLASS :	N/A	N/A	5P	N/A	N/A	N/A	-	5P	N/A	N/A	N/A	N/A	N/A	N/A	5P	-
V _k AT MIN.RATIO :	N/A	N/A	1500V	N/A	N/A	N/A	-	1500V	N/A	N/A	N/A	N/A	N/A	N/A	1500V	-
RATED BURDEN :	N/A	N/A	20V	N/A	N/A	N/A	-	20V	N/A	N/A	N/A	N/A	N/A	N/A	20V	-
METERING CORE :	-	-	-	-	-	-	-	(33/√3)/(0.11/√3)	-	-	(33/√3)/(0.11/√3)	-	-	-	-	-
ACCURACY CLASS :	-	-	-	-	-	-	-	0.5S	-	-	0.5S	-	-	-	-	-
RATIO :	-	-	-	-	-	-	-	(33/√3)/(0.11/√3)	-	-	(33/√3)/(0.11/√3)	-	-	-	-	-
ACCURACY CLASS :	-	-	-	-	-	-	-	3P	-	-	3P	-	-	-	-	-
RATED PRIMARY CURRENT :	-	-	-	-	-	-	-	40A	-	-	40A	-	-	-	-	-
RATED BURDEN :	-	-	-	-	-	-	-	5VA	-	-	5VA	-	-	-	-	-

NOTES:-
 01. ALL THE DIMENSIONS ARE IN MILLIMETER UNLESS SPECIFIED OTHERWISE.
 02. SEPARATE EARTHING TRUCKS SHALL BE PROVIDED FOR MAINTENANCE WORK OF 33KV SWITCHGEAR PANELS. TRUCKS SHALL BE SUITABLE FOR EARTHING THE 33KV SWITCHGEAR BUS BARS AS WELL AS OUTGOING AND INCOMING CABLES. TRUCKS SHALL HAVE A VT/ VPI AND AN INTERLOCK TO PREVENT EARTHING OF ANY LIVE CONNECTION. THE EARTHING TRUCKS SHALL IN ADDITION HAVE VISUAL/ AUDIBLE ANNUNCIATION TO WARN THE OPERATOR AGAINST EARTHING OF LIVE CONNECTION.
 03. THE EARTHING DEVICE (TRUCK/SWITCH) SHALL HAVE THE SHORT CIRCUIT WITHSTAND CAPABILITY EQUAL TO THAT OF ASSOCIATED SWITCHGEAR PANEL 4 NO. + 4NC OF AUXILIARY CONTACTS OF THE EARTHING DEVICE SHALL BE PROVIDED FOR INTERLOCKING PURPOSE.
 04. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING -
 I) JHANSI SS- ELECTRICAL LAYOUT PLAN
 II) JHANSI SS- ELECTRICAL LAYOUT SECTION



APPLICABLE FOR PS-01

REV. NO.	APPROVAL STATUS	DESCRIPTION	DATED
00	ISSUED	SUBMITTED FOR APPROVAL	24-08-2024

CLIENT :

POWER GRID CORPORATION OF INDIA LTD.
 (A Govt. of India Enterprise)

BLUE STAR LIMITED
 BANDBOX HOUSE, 4TH FLOOR, 254D, DR. ANNIE BESANT ROAD, WORLI, MUMBAI - 400 030, INDIA

RESPONSIBLE DEPARTMENT	PREP. BY	DRAWING TITLE :	
EMPG-INFRA	P. DAS	JHANSI SS- SINGLE LINE DIAGRAM	
LEGAL OWNER : CONTRACTOR	CHKD. BY	PGCIL DRAWING NO. :	BSL DRAWING NO. :
	R.B.	BDD00027-BDD027-SE0271-SLD	BS20-PGSS117-JHANSI-SLD
APPVD. BY	DRAWING TYPE	DRAWING STATUS	SHEET SIZE
A.K.D.	SYSTEM ENGG.	ISSUED FOR APPROVAL	A1
		SCALE	REV.
		DATE OF ISSUE	LANG.
		24-10-2024	en
			SHEET
			0 1

THIS DESIGN, DRAWINGS & PRINTS TAKEN THEREFROM, ARE THE PROPERTY OF THE BLUE STAR GROUP OF COMPANIES. THEY MUST NOT BE COPIED OR MISUSED IN ANY WAY. © BLUE STAR

DECLARATION BY THE BIDDER FOR PREFERENCE OF PLOTS TO BE ALLOCATED

Name of Bidding Company/ Lead Member of Bidding Consortium	
Capacity Quoted by Bidder MW

Sl. No.	Rank (in order of preference)	Land/Block (North / South)
1	Rank-1	
2	Rank-2	

Dated the _____ Day of _____, 20....

Thanking you,
We remain,
Yours faithfully,

Name, Designation, Seal and Signature of Authorized Person in whose name Power of Attorney/ Board Resolution/ Declaration.

Notes:

- The bidder shall be awarded Plots equivalent to their awarded capacity in line with RFS.
- Bidders have to indicate preference for all the land Blocks/ plots.