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भारत हेवी इलेक्ट्रिकल्स लिमिटेड

Bharat Heavy Electricals Limited

(A Government of India Undertaking)

ELECTRONICS DIVISION

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Dt. 30.08.2017


Corrigendum-1 to RFQ No. SPKSCPV004 dated 24.08.2017 due date 07.09.2017 for Supply, I&C and O&M of 66KV Switchyard package for 15MW (AC) Solar PV Plant

Following revisions / modifications are incorporated in the Tender document :

- 1. Corrigendum -1 to Purchase Specification PS-439-1146 Rev. 00 (2 Pages enclosed).**
- 2. Fill and submit the Annexure-C (copy enclosed)**

All other terms and conditions of RFQ remain unchanged.

Additional General Manager
SC&PV/MM

	Specification for design, supply, installation and commissioning, operations and maintenance of 66kV switchyards, underground cables for 15MW (AC) solar power plant at Charanka Solar Park, Gujarat	PS-439-1146
		CORRIGENDUM-1
		PAGE : 1 OF 1

Corrigendum-1 to purchase specification PS-439-1146 Rev. 00

#	Tender clauses	Description as in tender	Revised description as per this Corrigendum
1	5.1.2 (a) –Sl.No 5 (b) in page 11 of 116	120kV 10kA station class-3 gapless metal oxide surge arrester (LA) – 6 Nos	60kV 10kA station class-3 gapless metal oxide surge arrester (LA) – 6 Nos
2	6.7.4 (1) in page 53 of 116	Arrester rating: 120kV, 10kA, Class-3 with IB	Arrester rating: 60kV, 10kA, Class-3 with IB
3	6.7.4 in page 54 of 116	120 KV ZINC OXIDE LIGHTNING ARRESTERS TYPE AND SYSTEM DATA The lightning arresters shall be of 120 KV, gapless zinc oxide and suitable for outdoor operation without protection from sun and rain.	60 KV ZINC OXIDE LIGHTNING ARRESTERS TYPE AND SYSTEM DATA The lightning arresters shall be of 60 KV, gapless zinc oxide and suitable for outdoor operation without protection from sun and rain.
4	7.8(f) in page 69 of 116	Cables for interfacing different protections & control schemes of the new bay to the existing 132 kV SWYD protections & schemes.	Cables for interfacing different protections & control schemes of the new bay to the existing 66 kV SWYD protections & schemes.
5	Annexure-1	Single line diagram to be ignored: Drawing No. BHEL-GACL-ELEC-ACSLD-001 Rev1	Single line Diagram to be considered: Drawing No. BHEL-GACL-66KVSLD Rev0

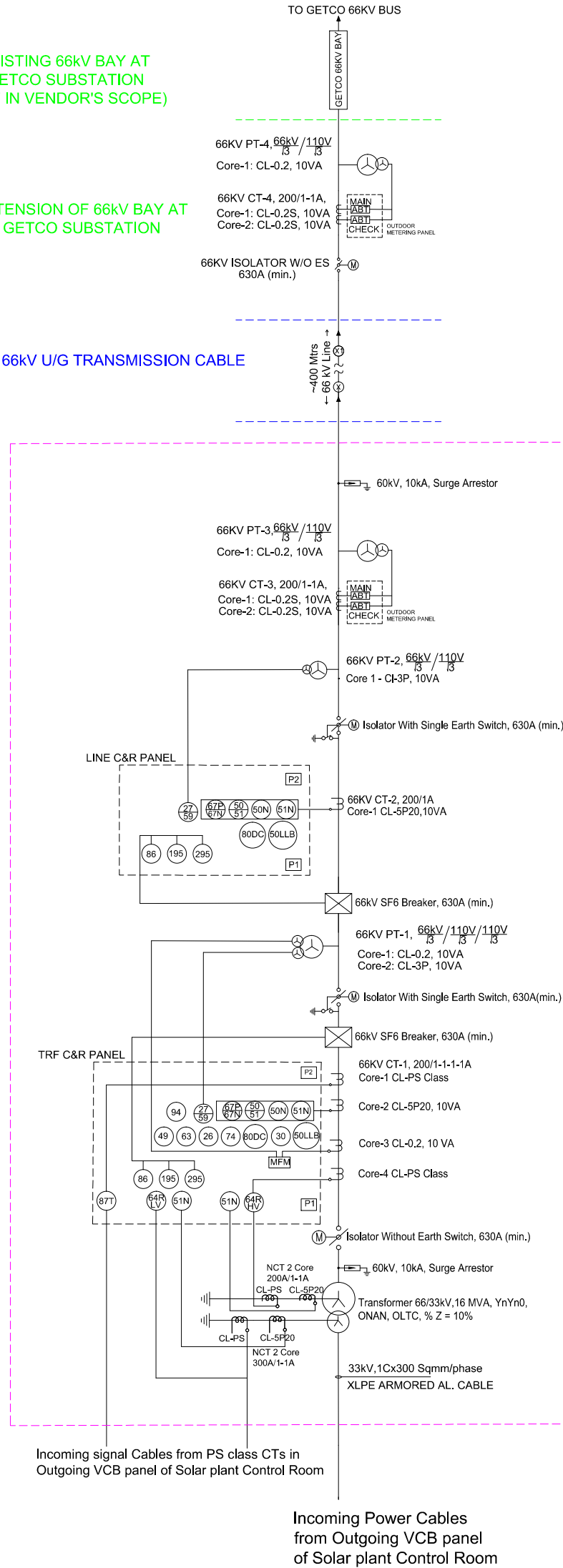
This drawing is tentative and for tender purpose only. Final SLD shall be inline with GETCO norms and will be subject to GETCO approval.

EXISTING 66kV BAY AT GETCO SUBSTATION (NOT IN VENDOR'S SCOPE)

EXTENSION OF 66kV BAY AT GETCO SUBSTATION

66kV U/G TRANSMISSION CABLE

SOLAR PLANT SIDE MAIN SWITCHYARD



LEGEND DETAILS		
SL. NO.	SYMBOL	DESCRIPTION
1		INVERTER TRANSFORMER / POWER TRANSFORMER
2		VCB 33kV, 630A
3		66 kV SF6 BREAKER
4		MASTER TRIP RELAY
5		TRIP CIRCUIT SUPERVISION RELAY
6		ANTI PUMPING RELAY
7		BUCHHOLZ RELAY
8		MAGNETIC OIL LEVEL GAUGE
9		WINDING TEMP INDICATOR AND OIL TEMP INDICATOR
10		PRESSURE RELIEF DEVICE
11		INST OVER CURRENT RELAY
12		IDMT OVER CURRENT RELAY
13		NEUTRAL INSTANTANEOUS OVER CURRENT RELAY
14		IDMT EARTH FAULT RELAY
15		MULTI FUNCTION METER
16		CURRENT TRANSFORMER
17		UNDER VOLTAGE RELAY
18		OVER VOLTAGE RELAY
19		POTENTIAL TRANSFORMER
20		FUSE
21		ABT TARIFF ENERGY METER
22		DC FAILURE INDICATION
23		INVERTER, 1250kVA
24		ELECTRICALLY DRAW OUT ACB
25		LIGHTNING ARRESTER
26		RESTRICTED EARTH FAULT RELAY (LV SIDE)
27		TRANSFORMER DIFFERENTIAL RELAY
28		ANNUNCIATOR RELAY
29		LOCAL BREAKER BACKUP PROTECTION
30		TRIP CIRCUIT SUPERVISION RELAY
31		LINE DIFFERENTIAL PROTECTION RELAY
32		DIRECTIONAL OVER CURRENT RELAY
33		DISTANCE PROTECTION RELAY
34		ISOLATOR WITH DOUBLE EARTH SWITCH
35		ISOLATOR WITH SINGLE EARTH SWITCH
36		ISOLATOR

DEPT.	SC&PV			
STATUS	CONTRACT			
DISTRIBUTION				
REV.	DATE	DRWN	CHD	APPD
00	29.08.17	RA	PR	NHR
First issue.				



15MW(AC) SOLAR PV PLANT IN CHARANKA SOLAR PARK, GUJARAT

BHARAT HEAVY ELECTRICALS LTD
ELECTRONICS DIVISION, BANGALORE

TITLE
SLD OF 66KV SWITCHYARD

SCALE :

DRAWING NO.
BHEL-GACL-66KVSLD
SHEET 1 OF 1
REV. 00

BHEL-GACL-66KVSLD

DRG. No.

2

3

4

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6

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List of Documents to be submitted by Vendors/Subcontractors for SPV Contracts.		Confirmation on submission	Deviation / Remarks
IR Documents (Type - A): For all Civil & I&C & O&M			
Sl No.	Documents		
1	Wage Sheet (Form 17)	YES / NO	
2	Attendance Register (w.r.t Sl No.1)	YES / NO	
3	Workman Policy & Additional Insurance (Automotive Liability, Group Servis Insuarnc Policy et	YES / NO	
4	PF Challan	YES / NO	
5	ESI (Employee State Insurance)	YES / NO	
6	ECR (Electronic Challan Receipt)	YES / NO	
7	Bank Statement for PF deposit	YES / NO	
8	RCS (Remittance Confirmation Slip)	YES / NO	
Quality Documents (Type - B): For all MMS Civil Works			
Sl No.	Documents		
1	FQA (Field Quality Assuarance)	NA	
2	Field Content, Slump Test	NA	
3	Gradiation of Aggregate (10mm, 20mm)	NA	
4	Fine Aggregate Test (for Sand)	NA	
5	Cube Test Registered	NA	
6	Material Test Certificate for Steel & Cement	NA	
7	Consumption Register for Steel & Invoice	NA	
8	Pour Card for Concreting purpose	NA	
9	Royalty Reports (10mm, 20mm, Sand)	NA	
10	Sand Soundess Test Reports	NA	
11	Slump Test Register	NA	
12	Sieve Analysis, Flakiness Index, Elongation Index - Register to be maintained	NA	
13	Moisture Content Coarse and Fine Aggregate - Register to be maintained	NA	
14	Water Test Report for Concrete	NA	
15	Design Mix Report for Concrete	NA	
Quality Documents (Type - B): For all Civil related Works			
Sl No.	Documents		
1	FQA (Field Quality Assuarance)	YES / NO	
2	Field Content, Slump Test	YES / NO	
3	Gradiation of Aggregate (10mm, 20mm)	YES / NO	
4	Fine Aggregate Test (for Sand)	YES / NO	
5	Cube Test Registered	YES / NO	
6	Material Test Certificate for Steel & Cement	YES / NO	
7	Consumption Register for Steel & Invoice	YES / NO	
8	Pour Card for Concreting purpose	YES / NO	
9	Royalty Reports (10mm, 20mm, Sand)	YES / NO	
10	Sand Soundess Test Reports	YES / NO	
11	Warpage of Bricks Test Reports	YES / NO	
12	Core Cutting (Compaction Test) - Roads & Pathways	YES / NO	
13	Slump Test Register	YES / NO	
14	Sieve Analysis, Flakiness Index, Elongation Index - Register to be maintained	YES / NO	
15	Moisture Content Coarse and Fine Aggregate - Register to be maintained*	YES / NO	
16	Brick Test Reports	YES / NO	
17	Plastering profile and thickness	YES / NO	
18	Compaction test beneath floor of all buildings. - Reports	YES / NO	
19	Test Certificates for Paint, Glan, Glazing, etc.	YES / NO	
20	Test Certificates Aluminium Section for doors and windows (Anodisation Certificates also)	YES / NO	
21	BBS for Buildings	YES / NO	
22	Water Test Report for Concrete	YES / NO	
23	Design Mix Report for Concrete	YES / NO	
Quality Documents: for Electrical & Mechanical Installation Works (BOS)			
Sl No.	Documents		
1	FQA (Field Quality Assuarance)	YES / NO	
2	Inspection Reports	YES / NO	
3	Guarantee Certificates	YES / NO	
4	Factory Acceptance Test Reports	YES / NO	
5	Commissioning Reports	YES / NO	

NOTE:

* This list of documents is indicative and intended towards all Solar Projects.

* Apart from the above, any other document required by the Customer and which are mandatory for Billing by BHEL to the Customer, the same needs to be provided by the respective vendors.