

To be done on Rs.300/- Non Judicial Stamp Paper

MEMORANDUM OF UNDERSTANDING BETWEEN M/S.LIMITED AND GUJARAT ENERGY TRANSMISSION CORPORATION LTD. (GETCO) FOR OPERATION AND MAINTENACE OF M/S. LIMITED 'S LINE & BAYS AT 220/132/ 66KV SUBSTATION OF GETCO FOR THE PERIOD FROM ____ / ____ /2020 TO ____ / ____ /20____.

Place : Vadodara.

Date: XX/XX/XXXX

This O & M Agreement has been signed on this date of 2020 between M/s. limited., duly signed by Mr. ,an authorized representative of M/s Limited (which expression and includes their legal heir, administrator etc.) as party of one PART AND BY Shri Chief Engineer (R & C), an authorized representative of GETCO (which expression and includes their legal heir, administrator etc.) as party of other part.

1.0 INTRODUCTION:

1.1 The following 66KV line/cable of M/s. Limited has been planned for commissioning with respect to the Bulk Power Transmission between 220/132/66 KV GETCO substation to 66/33 KV substation of M/s Limited. which is the dedicated line.

(I) 66KV Line connectivity (Commercial Operation w.e.f. _____)

1.2 This Line is terminated at 66KV substation of GETCO. Although the M/S..... Limited may have built this line it has been agreed that maintenance of line and bays shall be carried out by GETCO as the line is terminating at GETCO substation and shall be integrated with GETCO grid. Consequently, the O & M Agreement has been prepared with details, terms, conditions and scope of work as below;

1.3 The Agreement shall become effective from the date of Commissioning/taking over of the 220/132/66 Kv Line & Bays. In the instant case shall be the date of Commissioning/ taking over is

2.0 SCOPE OF WORK:

GETCO will carry out the Operation and Maintenance of terminal equipments of the following M/s limited bay.

(I) 66KV M/s limited bay at 132/66KV GETCO substation (Commercial Operation w.e.f. dtd. _____)

(II) 66 Kv line from M/s limited to 66 kv GETCO substation (Dedicated line)

2.1 GETCO `S RESPONSIBILITIES:

(I) Operation of the above line & bays.

(II) The Maintenance of the equipment in the (GETCO's premises) bay including routine testing of protection and PLCC at the cost of M/s Limited.

(III) Maintenance of 66 Kvline.

2.2 No hot line maintenance on substation equipment would be undertaken.

2.3 Testing, repairing and maintenance of all common equipments accessories like batteries, chargers, illumination, etc. will be in the GETCO `s scope. All major Equipment will be tested, repaired and maintained at the cost of M/s Limited and GETCO shall not bear the cost of major equipment replacement due to failure or damage.

2.4 In case of breakdown or damage of 220/132/66 Kv tower or conductor or cable or any major equipment associated with the dedicated line, the same will be repaired and reinstated at the cost of M/s Limited and GETCO shall not bear the cost of major equipment replacement due to failure or damage.

2.5 Cost of T&P available at the concerned GETCO substation requires to be used for all types of repairs will be considered within the scope of O&M charges. The services of GETCO personnel for repairs like replacement of circuit breaker poles etc. shall also be within the scope of this

O&M contract. In case, services of the manufactures or any outside agency are required for particular occasion M/s. limited will arrange for the same at its own cost. Services of GETCO staff and vehicles etc. utilized in emergency for replacement of equipment's / structures etc. will be charged at actual, event wise depending on emergency subject to verification by M/s Limited representative.

2.6 SCHEDULE OF MAINTENANCE:

Maintenance and testing will be done as per M/s. _____ schedules.

2.7 M/s. limited will arrange for necessary shutdowns for this line and bay on request from GETCO.

2.8 Monthly reports of maintenance and testing carried out in M/s. Limited bay by GETCO shall be furnished to the sub-coordinator / local representative of coordinator of M/s. Limited. Wherever the manufactures maintenance schedule are indicated for some additional activities not covered in M/s. Limited / GETCO schedules, the same will be carried out by M/s. Limited.

2.9 The maintenance work at sub-station and 220/132/66/ lines will not cover supply of original major spares including emergency replacement, which M/s. Limited authorities will have to supply or limitations imposed on this account will not be accountable to GETCO. However, in all possible circumstances sufficiently advance intimation shall be given by GETCO to M/s. limited coordinator.

2.10 GETCO will maintain records of operation and maintenance carried out by them. The program of periodical testing of equipment's switchgears in M/s. Limited bay will be informed to M/s. limited in advance in order to enable the later to send its representatives for witnessing the test/works.

3.0 SPARES :

Major spares and consumable viz. SF6 gas for CB's, CVT/CT oil O&M, required for a period of at least two years, as recommended by the suppliers and those proposed by GETCO, will be reviewed, finalized and procured by M/s. Limited. These spares will be kept in the custody of M/s. Limited /GETCO as may be mutually agreed upon. In case of custody of M/s. Limited , they will be made available to GETCO for utilization in bay, on requisition from GETCO.

In case of custody of GETCO, quarterly report on consumption of spares shall be furnished to M/s. Limited for replenishment. GETCO may use M/s. Limited Limited spares for its own bays in case of emergency with the written concurrence of M/s. Limited main-coordinator.

Cost of other materials charged from time to time due to contingent operational needs shall be reimbursed by M/s. Limited on submission of supporting vouchers.

4.0 COMPENSATION :

M/s. Limited will pay 1.5% cost of the erected equipment’s per year with effect from _____ for the listed at CL. No. 2.0 with an escalation of 5% per year, thereafter till the validity period of this O & M Agreement or mutually agreed period after the expiry of the validity period.

The summary of year wise charges will be as under considering 5 % escalation per year.

1st Year	1.500%
2nd Year	1.575%
3rd Year	1.654%
4th Year	1.737%
5th Year	1.824%

The cost of the erected equipment’s in each bays is listed at Annexure-I.

To elaborate, the compensation for the first year will be as follows:-

Equipment cost (inc. Erection) for both line & Bays : Rs. _____ /-

Cost of compensation for the first year : Rs. _____/-

5.0 TAXES:

Taxes will be charged extra.

6.0 MODE OF PAYMENT:

GETCO will submit yearly O&M bills to the M/s. Limited coordinator. The payment will be released by M/s..... limited within 7 working days “Due Date” from the receipt of Invoice.

6.1 In case payment is made after the due date, surcharge of 1.5% (18% p.a.) per month shall be charged up to the date of payment from the due date. Payment shall be made by local Cheque / demand draft payable to GETCO. (Due date shall be 7 days after issue of bills). The terms and conditions of GERC tariff regulations for mode of payment and recovery of DPC will be applicable from time to time.

7.0 GETCO RESPONSIBILITY TOWARDS EQUIPEMENTS:

GETCO would take all necessary care and precaution while handling the M/s. Limited equipment’s for maintenance purpose. However, any accidental caused to the equipment during maintenance shall have to be made good by M/s. Limited and GETCO shall not be responsible for such damage.

7.1 INSURANCE:

GETCO takes full responsibility to take care of equipments. Any accidental damage caused to any equipment during the operation and maintenance shall have to be made good by M/s. Limited and GETCO shall not be responsible. M/s. Limited may cover appropriate insurance for equipment’s at the M/s. Limited bay at their cost and lodging claims and processing them with insurance company for recovery.

8.0 CO-ORDINATION:

8.1 Main coordinator and sub-coordinator from M/s. Limited and GETCO side will be as per Annexure-II.

8.2 M/s. Limited authorized representative shall be permitted to visit control rooms and switchyards at the above 400 KV sub-station, after getting permission from GETCO (indicated at CL.NO.2.1) and shall be permitted to go through records of equipment’s pertaining to M/s. Limited bay/cable.

9.0 SETTLEMENT OF DISPUTES:

If any dispute (s) or difference (s) arises out of or in relation to this O & M AGREEMENT, it shall in the first instance to be settled amicably between the parties at operating level. In case any dispute is not settled amicably, it shall referred to the Forum consisting of ED, M/s. Limited and Managing Director GETCO, Vadodara, who will resolve and/or decide the dispute(s), or difference (s) jointly and their decision in that regard shall be final and binding on the parties.

10.0 FORCE MAJEURE:

The parties shall ensure due compliance with the terms of this Agreement. However, no party shall be liable for any loss or damage whatsoever arising out of failure to carry out terms of the Agreement to the extent that such a failure is due to force majeure events such as war, rebellion, mutiny, civil commotion, riot, strike, lock out, forces of nature, accident, act of god, act of govt. and any other reason beyond the control of concerned party.

11.0 REPORTING:

Concerned GETCO sub-station will report as under Daily Operation Data as per Annexure-III.

11.1 Daily operational data will be intimated by each sub-station on local P & T phone to the local representative of M/s. Limited every morning.

11.2 In case of any tripping, the information will be conveyed to M/s. Limited , using PLCC network and on local P&T phone to local representative of M/s. Limited immediately. Detailed tripping report in prescribed format shall be handed over to local representative.

11.3 Quarterly maintenance report will be sent to main coordinator in duplicate.

12.0 VALIDITY PERIOD : This O & M Agreement shall remain valid and binding to both the parties from date of taking over of the 66 KV line & bay of M/s Limited indicated vide (CL.NO.2.1) to be maintained by GETCO i.e. from to dt. __.__.20__ for period of 25 years. The validity period can be further extended on mutually agreed period between both the parties.

Signed on this date month & year by & between.

For M/s. Limited.

WITNESSESS:

1. _____

2. _____

For GUJRAT ENERGY TRANSMISSION CORPORATION LTD. VADODARA

CHIEF ENGINEER (R & C)

WITNESSESS:

1. _____

2. _____

Place: Vadodara

Date: _____

NOTE THIS IS SAMPLE CALCULATION YOU HAVE TO ADD YOUR ESTIMATE

ANNEXURE-I

COST OF ERECTED EQUIPMENT AT 66KV BAY AT GETCO SUBSTATION

PART-I (GETCO SS END)					
Estimate of Deposit work of erection of 66 Kv feeder bay at GETCO 66 KVr S/S for evacuation of ...MW windfarm generation from M/s..... Sub-station at					
Sr. No.	Particulars	Qty .	Unit	Unit Rate in Rs.	Total AO & M Agreementnt in Rs.
A	66 KV L.A.	3	Nos.		
B	66 KV Isolator with E/B	1	Set		
C	66 KV Isolator without E/B	1	Set.		
D	66 KV SF6 Breaker	1	Nos.		
E	66 KV C.T.	3	Nos.		
F	66 KV Feeder C & R Panel	1	Nos.		
G	66 KV PI	3	Nos.		
H	Control Cable with cubicals	L.S	L.S		
I	S/S Structure material for gantry/LA/CT/PI etc.	5	MT		
J	B/N for 66Kv G.I. Structure	1	MT		
K	Civil work of bays including cable trench	L.S	L.S		
L	Clamp, connectors, conductor & earthing works	L.S	L.S		
M	Yard lighting work for feeder bay & Fire fighting equipments	L.S	L.S		
N	Bus bar strengthening work	L.S	L.S		
O	Providing VHF/Alternative communication	L.S	L.S		
P	66KV single Phase PT with structure having Voltage Ratio 66KV/110 V (Dead line PT)	1	Nos.		
Q	No volt relay	1	Nos.		
R	Directional Numerical OC-Earth Fault Relay	1	Nos.		
S	Installation of Line meter (Voltmeter)	1	Nos.		
1	Total Cost of Material				
2	10% Contingency on Material Cost				
3	TOTAL COST OF MATERIAL (1+2)				
4	Labour / Erection (10% of Total Cost of Material)				
5	10% Contingency on Erection / Labour charge				
6	TOTAL ERECTION / LABOUR CHARGES (4+5)				
7	18% GST to be reimbursed by applicant to Contractor on Point no. 6				
	a) 9% CGST on (6)				
	b) 9% SGST on (6)				
	Total GST to be reimbursed by applicant on point no. 6 (a+b)				
8	Total Cost of Labour (6+7)				
9	Sub Total (3+8)				
10	Add : Welfare Cess (1%)				
11	Sub Total (9+10)				
12	7.5% Supervision Charges (7.5% on point no. 11)				
13	Total (11+12)				
	Estimated aO & M Agreementnt of Part - I under Option - 3 (Work to be carried out by Developer)				

Part – II (Developer End)					
Estimate of deposit work for erection of 1 No. of 66Kv Feeder bay at the wind developer's 66Kv switchyard for evacuation ofMW wind farm generation of M/s. from their wind farm located at Village					
Sr. No.	Particulars	Qty.	Unit	Unit Rate in Rs.	Total AO & M Agreementnt Rs.
A	66 KV L.A.	3	Nos.		
B	66 KV Isolator with E/B	1	Set		
C	66 KV Solid core Insulator (PI)	3	Nos.		
D	66 KV CT metering 0.2S Class	3	Nos.		
E	66 KV PT 0.2 Class (with Structure)	3	Nos.		
F	S/S Structure material for gantry/LA/PI etc.	L.S	L.S		
G	Civil Works if any	L.S	L.S		
H	Clamp, connectors, conductor, Earthing works	L.S	L.S		
I	Providing VHF / Alternative communication	L.S	L.S		
J	66KV single Phase PT with structure having Voltage Ratio 66KV/110V (Dead Line PT)	1	No.		
K	Control Cable	L.S	L.S		
L	No volt relay	1	No.		
M	Directional Numerical OC-Earth Fault Relay	1	No.		
N	Installation of Line meter (Voltmeter)	1	No.		
1	Total Cost of Material				
2	10% Contingency on Material Cost				
3	Total Cost of Material (1+2)				
4	Labour / Erection Charges (10% of total Cost of Material)				
5	10% Contingency on Erection / Labour charge				
6	TOTAL ERECTION / LABOUR CHARGES (4+5)				
7	18% GST to be reimbursed by applicant to contractor on point No. 6				
	a) 9% CGST on (6)				
	b) 9% SGST on (6)				
	Total GST to be reimbursed by applicant on Point no. 6 (a+b)				
8	Total Cost of Labour (6+7)				
9	Sub Total (3+8)				
10	Add : Welfare Cess (1%)				
11	Sub Total (9+10)				
12	7.5% Supervision Charges (7.5% on point no. 11)				
13	Total (11+12)				
	Estimated aO & M Agreementnt of Part – II under Option – 3 (Work to be carried out by Developer)				

Part – III (LINE)						
Estimate of deposit work for erection of 1 No. of 66Kv Transmission line from 66Kv S/S to the switchyard of wind developer S/S for evacuation ofMW wind farm generation of M/s. from their wind farm located at Village						
Sr. No.	Particulars	Qty.	Unit	Unit Rate in Rs.	Total O & M Agreement Rs.	
A	Material Cost of 66KV S/C line on S/C Panther tower with ACSR Panther conductor from 66KV S/S to Switchyard of M/s. Limited.	1.75	Km	12,63,000.00		
1	Sub Total of Material cost (A)					
2	10% Contingency on Material Cost					
3	TOTAL COST OF MATERIAL (1+2)					
A	Labor Cost of 66kv S/C line on S/C Panther tower with ACSR Panther conductor from 66KV S/S to Switchyard of M/s. Limited.	1.75	Km	6,49,000.00		
4	Sub Total of Labour cost (A)					
5	10% Contingency on Erection / Labour Charge					
6	TOTAL ERECTION / LABOUR CHARGES (4+5)					
7	18% GST to be reimbursed by applicant to Contractor on Point No. 6					
	a) 9% CGST on (6)					
	b) 9% SGST on (6)					
	Total GST to be reimbursed by applicant on point no. 6 (a+b)					
8	Total Cost of Labour (6+7)					
9	Sub Total (3+8)					
10	Add : Welfare Cess (1%)					
11	Sub Total (9+10)					
12	7.5% Supervision Charges (7.5% on point no. 11)					
13	Total (11+12)					
	Estimated O & M Agreementnt of Part – III under Option – 3 (work to be carried out by Developer)					

COORDINATORS FROM M/s. & GETCO

SR. NO.	NAME OF SUBSTATION	GETCO COORDINATORS		M/s. Limited COORDINATORS	
		MAIN	SUB	MAIN	SUB
1.	66KV M/s. Limited substation		SE (TR) GETCO	GENERAL MANAGER (TECHNICAL)	MANAGER (PROJECT)

ANNEXURE-III

DAILY OPERATION DATA TO BE FURNISHED TO LOCAL REPRESENTATIVE

SR. NO.	DATA
1.	MAXIMUM VOLTAGE IN KV/TIME
2.	MINIMUM VOLTAGE IN KV/TIME
3.	MAXIMUM FREQUENCY IN HZ/TIME
4.	MINIMUM FREQUENCY IN HZ/TIME
5.	**MAXIMUM FLOW IN MW/TIME
6.	**MINIMUM FLOW IN MW/TIME
7.	** MAXIMUM FLOW IN MVAR/TIME
8.	** MAXIMUM FLOW IN MVAR/TIME

****DATA WILL BE IN RESPECT OF M/s. _____ LINE**

Details of tripping/shutdowns on M/s. _____ lines, if any, during the last twenty four hours shall also be furnished along with the above data.