MSETCL/EE/500 kV HVDC IDOD /Dn./PDG/No. - 351 Date : 11 MAY 2024

E- Enquiry (Budgetary offer)

Subject: - Enquiry for submission of budgetary offer for **Supply and Installation Work of RTV Coating and Associated Refurbishment of M/s. Trench Austria make Air Core Reactors** of AC & DC Filter at HVDC terminal StationPadghe, MSETCL.

Dear Sir,

Budgetary offers are invited by the undersigned for Supply and Installation Work of RTV Coating and Associated Refurbishment of M/s. Trench Austria make Air Core Reactors of AC & DC Filter at HVDC terminal StationPadghe, MSETCL **on or before: 20/05/2024 up to 17:00 Hrs.** The other terms and conditions are as mentioned below.

1) Offer should be duly filled in and submitted to this office via hard copy will be accepted.

2) This enquiry is solely for collection of offer for estimate purpose & not for work allocation.

3) The offer should be submitted as per details mentioned below.

4) Quote rate in prescribed format & Attached Specifications in Annexure-I and Scope of work in Annexture-II.

5) Offers only accepted from Authorized partner of /dealer of M/s Trench Austria.

EXECUTIVE ENGINEER

HVDC ID-OD DIVISION PADGHE (I/C)

Address for the Submission of Budgetary Offer:

Office of the Executive Engineer,
HVDC IDOD TSC Dividon, Padghe,
Taluka : Bhiwandi, District : Thane,
MSETCL, Pin Code : 421101

Annexure-I

Name of work: Supply and Installation Work of RTV Coating and Associated Refurbishment of M/s. Trench Austria make Air Core Reactors of AC & DC Filter at HVDC terminal Station Padghe, MSETCL.

Supply Part

Sr. No.	Description	Unit	Approx Qty	Supply Rate per unit without taxes (Rs.)
1	36.0kV/mm RTV Quartz ATH Gray Paint	kG	564	
2	WGCC Refurbishment Kit	EA	1	

Service Part

Sr. No.	Description	Unit	Approx. Qty	Service Rate per unit without taxes (Rs.)
1	Demobilization of Gang/Skilled Workers	EA	1	
2	Technical Support for Coating of ACR from Trench	EA	1	
3	Technical Support for Coating of ACR Limbs.	EA	1	
4	Installation of WGCC Kit	EA	1	
5	RTV Coating to 1515x2410mm Air Core Reactor	EA	12	
6	RTV Coating to 886x1680mm Air Core Reactor	EA	6	
7	RTV Coating to 885x1390mm Air Core Reactor	EA	6	
8	RTV Coating to 3180x3470mm Air Core Reactor	EA	6	
9	RTV Coating to 3055x 3750mm Air Core Reactor	EA	2	
10	RTV Coating to 2665x3040mm Air Core Reactor	EA	2	
11	RTV Coating to 1285x1770mm Air Core Reactor	EA	2	
12	RTV Coating to 1030x1235mm Air Core Reactor	EA	2	
13	RTV Coating to 1035x1095mm Air Core Reactor	EA	2	
14	Coating Insu. Limbs -AC Filter Z4L1 ACR	EA	6	
15	Coating Insu. Limbs-AC Filter Z1-3L1 ACR	EA	12	
16	Coating Insu. Limbs -AC Filter Z2L1 ACR	EA	6	
17	Coating Insu. Limbs -AC Filter Z2L2 ACR	EA	6	
18	Coating Insu. Limbs -DC Filter Z1L1 ACR	EA	2	
19	Coating Insu. Limbs -DC Filter Z1L2 ACR	EA	2	
20	Coating Insu. Limbs -DC Filter Z2L1 ACR	EA	2	
21	Coating Insu. Limbs -DC Filter Z2L2 ACR	EA	2	
22	Coating Insu. Limbs -DC Filter Z2L3 ACR	EA	2	

Note:- Rates should be exclusive of all taxes. All taxes GST, labour cess, freight, insurance and other applicable taxes need to mention separately.

Gadhav

EXECUTIVE ENGINEER

HVDC ID-OD DIVISION PADGHE (I/c)

Annexure-II

Sub: Scope of work for work of Coating of AC & DC Filter Reactor & its Limbs at HVDC Terminal Station, Padghe.

Scope of Work is as follows:

PART-A: Air Core Reactor Surface Coating

1. Surface decarburization.
2. Surface cleaning/grinding
3. Manual detaching of de-bonded flaking/existing RTV
4. Re-adhesion of insulating foil around spider member(s) edges
5. Surface preparation for RTV coating
6. Preparation of the surface for further treatment (de-greasing with solvent and chemical preparation)
7. Re-adhesion of insulating foil where possible.
8. Supply of RTV coating approved by OEM
9. Safety equipment, harness, PPE
10. Application of RTV Coating

PART-B: Air Core Reactor Support Insulator Coating

1. Supply of RTV Coating on support insulators
2. Supply of RTV Coating for Innermost coil surfaces if required
3. Application of RTV on Support Insulators
4. Application of RTV Coating for Innermost coil surfaces if required
5. Winding Gap Compensation Correction (WGCC) (Service)
6. Supply of Consumables
7. Safety equipment, harnesses, PPE
8. Supply of Trench Refurbishment kit for Winding gap Compensation & Correction
9. Trench Technical Support

List of Air core reactor installed at 500 KV HVDC Padghe

DC yard

	Item no	Qty	Type	Nominal inductance(mH)	Harmonic frequency	Diameter(mm)	Height (mm)
Pole 1	P1.Z1.L1	1	FHR 750/121/796.9	796.9	100/300	3055	3750
	P1.Z1.L2	1	FHR 350/146/394.2	394.2	100/300	2665	3040
	P1.Z2.L1	1	FHR 550/59/23	23	600/1200	1285	1770
	P1.Z2.L2	1	FHR 95/83/7.5	7.5	600/1200	1030	1235
	P1.Z2.L3	1	FHR 75/60/4.5	4.5	600/1200	1035	1095
Pole 2	P2.Z1.L1	1	FHR 750/121/796.9	796.9	100/300	3055	3750
	P2.Z1.L2	1	FHR 350/146/394.2	394.2	100/300	2665	3040
	P2.Z2.L1	1	FHR 550/59/23	23	600/1200	1285	1770
	P2.Z2.L2	1	FHR 95/83/7.5	7.5	600/1200	1030	1235
	P2.Z2.L3	1	FHR 75/60/4.5	4.5	600/1200	1035	1095
AC yard							
	Item no	**Qty**	**Type**	**Nominal inductance(mH)**	**Tuning frequency**		
Pole 1	Z1.L1	3	FHR 450/250/30.3	30.3	592	1515	2410
	Z2.L1	3	FHR 450/156/7.38	7.38	1200/1800	886	1680
	Z2.L2	3	FHR 125/350/1.23	1.23	1200/1800	885	1390
	Z3.L1	3	FHR 450/250/30.3	30.3	592	1515	2410
	Z4.L1	3	FHR 750/141/795.8	795.8	150	3180	3670
Pole 2	Z1.L1	3	FHR 450/250/30.3	30.3	592	1515	2410
	Z2.L1	3	FHR 450/156/7.38	7.38	1200/1800	886	1680
	Z2.L2	3	FHR 125/350/1.23	1.23	1200/1800	885	1390
	Z3.L1	3	FHR 450/250/30.3	30.3	592	1515	2410
	Z4.L1	3	FHR 750/141/795.8	795.8	150	3180	3670

Sagar

Detail Specification of Coating Matetrial

Type	One part, RTV
Appearance	Paint
Specific Gravity	≥ 1.27
Primary Filler Type	Quartz
Secondary Filler	Alumina Trihydrate
Color	Gray
Application Temperature Range ºC	-4°C to 121°C
Operational Temperature Range ºC	-50°C to 380°C
Cure Method	Oxime
*Skin-over time at standard conditions**	15 minutes
Tack free at 25°C and 50% RH	30 minutes
Min Percent Solids (By Weight)	≥ 78%
Min Percent Solids (By Volume)	≥ 64%
Viscosity, cps	1,700 to 2,500
As cured – at standard conditions for 7 days*	
Dielectric Strength, (ASTM D 149)	36.0 kV/mm
Volume resistivity, ohm.cm (ASTM D257)	9.0 × 1014
Dissipation factor at 100Hz (ASTM D150)	0.021
Water Repellency Angle	118° ± 3°
Tracking wheel withstand, hours	1,000 Hours
Min. Salinity Level withstood during Artificial Pollution Test on flashed-over and coated string of disc insulators (400kV)	224 kg/m3
Hydrophobicity Recovery within 48 hours (REC 76/2006)	To HC2
Method of Application	Airless Spray, brush or roller