MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.
HVDC IDOD TSC Division, Padgha.

MSETCL/EE/500 kV HVDC IDOD /Dn./PDG/NO 552 Date : 05 AUG 2023

E- Enquiry (Budgetary offer)

Sub : - 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.

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Dear Sir

Budgetary offers are invited by the undersigned from the agency having experiences of Providing and fixing Epoxy flooring for 500kV HVDC building at HVDC Padghe on or before: **on or before: 13/10/2023 up to 17:00 Hrs.** The other terms And conditions are as mentioned below.

1) Offer should be duly filled in and submitted via sealed envelope to SE,HVDC ,Padghe office address as below–
SUPERINTENDING ENGINEER, HVDC RS (O&M) Circle,PADGHE - 421 101
Tal: Bhiwandi Dist-Thane (Maharashtra, India) Phone No. : 9769006191 (O)
, will only 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
±500 KV HVDC ID/OD Padghe.

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	Application of RTV paint	Per kG	564	
2	Demobilization of Gang/Skilled Workers	EA	1	
3	Technical Support for Coating of ACR from Trench	EA	1	
4	Technical Support for Coating of ACR Limbs.	EA	1	
5	Installation of WGCC Kit	EA	40	

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

Attachment : Details are attached in next page.

EXECUTIVE ENGINEER

HVDC ID-OD DIVISION PADGHE

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

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

List of Air core reactor installed at 500 KV HVDC Padghe

Installed Trench make Air Core Reactors and dimension and approximate weight of required paint.

DC yard

	Item no	Qty	Type	Nominal inductance (mH)	Diameter(mm)	Height (mm)	Appro. Material/kG	Total kG
Pole 1	P1.Z1.L1	1	FHR 750/121/796.9	796.9	3055	3750	19	19
	P1.Z1.L2	1	FHR 350/146/394.2	394.2	2665	3040	14	14
	P1.Z2.L1	1	FHR 550/59/23	23	1285	1770	5	5
	P1.Z2.L2	1	FHR 95/83/7.5	7.5	1030	1235	3	3
	P1.Z2.L3	1	FHR 75/60/4.5	4.5	1035	1095	3	3
Pole 2	P2.Z1.L1	1	FHR 750/121/796.9	796.9	3055	3750	19	19
	P2.Z1.L2	1	FHR 350/146/394.2	394.2	2665	3040	14	14
	P2.Z2.L1	1	FHR 550/59/23	23	1285	1770	5	5
	P2.Z2.L2	1	FHR 95/83/7.5	7.5	1030	1235	3	3
	P2.Z2.L3	1	FHR 75/60/4.5	4.5	1035	1095	3	3
							Sum A	**88**

AC yard

	Item no	Qty	Type	Nominal inductance (mH)			Appro. Material/kG	Total kG
Pole 1	Z1.L1	3	FHR 450/250/30.3	30.3	1515	2410	7	21
	Z2.L1	3	FHR 450/156/7.38	7.38	886	1680	3	9
	Z2.L2	3	FHR 125/350/1.23	1.23	885	1390	2	6
	Z3.L1	3	FHR 450/250/30.3	30.3	1515	2410	7	21
	Z4.L1	3	FHR 750/141/795.8	795.8	3180	3670	22	66
Pole 2	Z1.L1	3	FHR 450/250/30.3	30.3	1515	2410	7	21
	Z2.L1	3	FHR 450/156/7.38	7.38	886	1680	3	9
	Z2.L2	3	FHR 125/350/1.23	1.23	885	1390	2	6
	Z3.L1	3	FHR 450/250/30.3	30.3	1515	2410	7	21
	Z4.L1	3	FHR 750/141/795.8	795.8	3180	3670	22	66
							Sum B	**246**

Installed Limbs of Air Core Reactors and dimension and approximate weight of required paint.

DC Yard

	Item no	Qty	Location of Limbs and name reactor	Nominal inductance(mH)	Appro. Material/kG	Total kG
Pole 1	P1.Z1.L1	1	FHR 750/121/796.9	796.9	16	16
	P1.Z1.L2	1	FHR 350/146/394.2	394.2	16	16
	P1.Z2.L1	1	FHR 550/59/23	23	8	8
	P1.Z2.L2	1	FHR 95/83/7.5	7.5	4.5	4.5
	P1.Z2.L3	1	FHR 75/60/4.5	4.5	4.5	4.5
Pole 2	P2.Z1.L1	1	FHR 750/121/796.9	796.9	16	16
	P2.Z1.L2	1	FHR 350/146/394.2	394.2	16	16
	P2.Z2.L1	1	FHR 550/59/23	23	8	8
	P2.Z2.L2	1	FHR 95/83/7.5	7.5	4.5	4.5
	P2.Z2.L3	1	FHR 75/60/4.5	4.5	4.5	4.5
		10			Sum C	98

AC yard

	Item no	Qty	Location of Limbs and name reactor	Nominal inductance(mH)	Appro. Material/kG	Total kG
Pole 1	Z1.L1	3	FHR 450/250/30.3	30.3	4	12
	Z2.L1	3	FHR 450/156/7.38	7.38	3	9
	Z2.L2	3	FHR 125/350/1.23	1.23	3	9
	Z3.L1	3	FHR 450/250/30.3	30.3	4	12
	Z4.L1	3	FHR 750/141/795.8	795.8	8	24
Pole 2	Z1.L1	3	FHR 450/250/30.3	30.3	4	12
	Z2.L1	3	FHR 450/156/7.38	7.38	3	9
	Z2.L2	3	FHR 125/350/1.23	1.23	3	9
	Z3.L1	3	FHR 450/250/30.3	30.3	4	12
	Z4.L1	3	FHR 750/141/795.8	795.8	8	24
					Sum D	132

Total Approximate Material require **Sum (A+B+CD) > 564 kg**