BOQ OF , NMDC KUMARASWAMY DOWNHILL CONVEYOR SYSTEM

Note: BHEL Reserves the Right to take the full scope or fix the scope after discussion with Vendor.

Sl No	ITEM	Quantity	Basic Price.	Lot Basic Firm Price.	Taxes & Duties,Insurance etc as per NMDC`s format , Vol-II	LSTK, FORD Prices.
A.	MECHANICALS					
1	Conveyor#718,Straight ,1200mm Belt Width , 37M long, Secondary Crusher House to TH-1.	1Lot				
2	#718A,Inline Magnetic Separator at TH-1,on Conveyor #718.	1Lot				
3	#718B, Electric Hoist at TH-1	1Lot				
4	#718C,Belt Weigh Scale, on Conveyor#718	1Lot				
5	#719, Belt Conveyor Inclined,1200mm Belt Width , 171M Long.	1Lot				
6	#719A,Metal Detector, on conveyor#719	1Lot				
7	#719B,Electric Hoist at Top of Storage Silo, 1000MT, Ore Storage.	1Lot				
8	#719D,Needle Gate,at Bottom of , above Storage Silo.	1Lot				
9	#720,Belt Feeder , 8.5M long with VVVF Controls. below RCC Silo.	1Lot				
10	#720A, In Line Magnetic Separator, on above Belt Feeder.	1Lot				
11	#720B,Electric Hoist, at TH-2	1Set				
12	#721,Belt Conveyor ,Inclined, ,1200mm Belt Width , 30M	1Lot				

	long. Between TH-2 to TH-2A.					
13	**#721A, Metal Detector, on conveyor-721.**	**1Lot**				
14	**#721B, Belt Weigh Scale,on conveyor-721.**	**1Set**				
15	**#721C, Electric Hoist in TH-2A.**	**1Set**				
16	**#722 , 15/5 MT Double Girder EOT Crane, at Tail Drive House of Down Hill Conveyor.**	**1Set**				
17	**#722A, Manual Hoist for maintenance of above EOT Crane. Located as above.**	**1Set**				
18	**#723 DOWNHILL CONVEYOR, Inclined , 1050m belt width, Steel Cord type, 4.9 KM Long apppx. With VVVF Drives. Between Tail Drive House to TH-3.**	**1 Set with 02 nos Self Propelled Maintenance Trolleys, moving on Triangular Or Rectangular Gantry Structures.**				
19	**#723A, 5MT Under Slung EOT Crane , at PS-1(Parking Station) at Tail End of Down Hill Conveyor.**	**1Set**				
20	**#723B, 5MT Under Slung EOT Crane , at PS-2(Parking Station) at Head End of Down Hill Conveyor.**	**1Set**				
21	**#724 , Surge Hopper, 50 CuM Water Volume ,in TH-3.**	**1Lot**				
22	**#724A, Hydraulically Operated Gate. At Bottom of Surge Hopper in TH-3.**	**1Set**				
23	**#725, Belt Feeder with VVVF drive. 8 M long ,at bottom of Surge Hopper in TH-3.**	**1Lot**				
24	**#726, Manual Hoist in TH-3 for maintenance of Head Pulley of**	**1Set**				

	DHC.					
25	**#726A,Electric Hoist in TH-3,formaintenance of Belt Feeder/Head Pulley of DHC.**	**1Set**				
26	**#726B, Electric Hoist in TH-3,for maintenance of Tail Pulley of Reversible Conveyor#727.**	**1Set**				
27	**#727, REVERSIBLE BELT CONVEYOR, Inclined, Steel Cord Belt, 1050mm belt width, 295 Metre Long, Inclined , with VVVF Drive.Located between TH-3 to TH-4.**	**1Lot**				
28	**#727A, Electric Hoist in TH-5**	**1Set**				
29	**#727B, 7.5 MT Single Girder EOT Crane in TH-4.**	**1Set**				
30	**#727-1, Inclined ,Belt Conveyor ,1200mm Belt Width, 13M long appx, between transfer station at Tail end and TH-6.**	**1Lot**				
31	**#727-2, Inclined Belt Conveyor ,1200mm Belt Width ,73M long appx. Between TH-5 to TH-6.**	**1Lot**				
32	**#727C, Electric Hoist in TH-6.**	**1Set**				
33	**#122,EXISTING Tripper Conveyor Modifications Works .(Tail End to be extended & Tripper travel to be increased)** **1.Existing Tripper Conveyor #122 at the existing Transfer House at Donimalai (Also having the Existing Down Hill Conveyor Head End there in) shall be extended by appx 12M towards TH-4 upto Head End of Reversible Conveyor #727.**	**1Lot.**				

	2. To Extend the Travel of the existing Tripper #122 by appx 28 Meters towards the Tail End to Enable Feeding Reversible Conveyor #727 ,through NEW TRANSER STATION(TS), Conveyors # 727-1, 727-2 .Finally in this mode Iron Ore can be Conveyed upto the Future & New Screening Plant at Donimalai. **3. In view of above two points , proper care must be taken at the Planning Stage about the Civil works at TH-5,TH-3,TH-4,TH-6, Existing Transer House and NEW TRANSFER STATION.**					
B.	**CIVIL & STRUCTURALS.**					
1	**Presence during Soil investigation and survey.**	**LS.**				
2	**Foundations for the tail pulley & short posts of conveyor no. 718 inside the secondary crusher building(Package-I Scope) and the conveyor gallery with gallery support & foundation up to 2m from axis 2 of secondary crusher building is included in the scope of package-I Tenderer. Package-II Tenderer shall furnish the load data and other information for the above foundations & gallery of conveyor no. 718 to Package-I Tenderer for providing the same.**	**1Lot Design Data.**				
3	**1000MT Effective Storage Silo for Iron Ore , With Structural Roof.**	**1Lot.**				

4	Transfer Houses (TH#) with RCC Columns & RCC Foundation (considering Soil Settlement)at the Terrain Placed. ,Civil Structures : TH-1, Tail Drive House, TH-2, TH-2A, PS-1, PS-2, TH-3, TH-5, TH-4, TH-6, Modification at Existing Transfer House, Transfer Station.	1Lot.			1.PS-1 & 2 are Parking cum Maintenance Shed for Self Propelled Maintenance Trolleys at Tail & Head End of the Down Hill Conveyor System. 2.TH-3 Height ,Width , Depth to be Suitable and Ready for considering future conveying of Materials to NEW SCREENING PLANT AT DONIMALAI through a New BeltFeeder & New Conveyor.	
5	TUBULAR Triangular/Rectangular GANTRY Structure enclosing the Conveyor Canopy, Belt, Idlers, Fire Sprinkler Pipes , Chequered plate walkway support if any .	1Lot appx 4.9 KMs. As Per the Final Ascertained DHC Path, Contour , Profile with Curvatures after Resurvey at Site.			In Modular Shippable Lengths by Trucks travelling the Hill Path at site and supported on RCC /STRUCTURAL SUPPORT TRESSLES	
6	Foundation Works of RCC / Fabricated Tressle Support Structures of Down Hill & Reversible Conveyor , as determined after site Resurvey.	1Lot.				
7	TAIL END 6.6 KV INDOOR TYPE SUB STATION BUILDING for SWITCHGEAR,TRANSFORMERS ,6.6KV CAPACITOR BANK etc.	1Lot.				
8.	TAIL END CABLE TRENCHES (Appx 700metre long),BURIED HUME PIPES FOR ROAD	1Lot.				

	CROSSINGS @EL+1036 FGL between 33/6.6KV SS to SS Building as above.					
9	**HEAD END 11KV SINGLE STORY SS BUILDING AT TH-3.** **Single Storied Indoor type 11KV SS Building**	**1Lot.**				
10	**HEAD END 11KV DOUBLE STORIED SS Cum Office Building At TH-5. For Locating HMI Computer Controls of DHC with VVVF &AUTOMATION PANELS.**	**1Lot.**				
11	**11KV CABLE TRENCH FROM 11 KV EXISTING CICO PANEL AT DONIMALAI 11 KV SWITCHYARD TO 11 KV DP-1 STRUCTURE TUBULAR/ FABRICATED SECTION ,Appx 600 Meter Cable Trench.**	**1 Lot.**				
12	**11 KV TUBULAR/FAB SECTION TRANSMISSION TOWERS /STRUCTURES FROM DP-1 at HEAD END TO DP STRUCTURE NEAR TH-3 TO CARRY 11KV OVERHEAD CONDUCTORS , APPX 03 KM Length.**	**1 Lot.**				
13	**Foundation Works , Support ,Jib & Stays, Tie Rope /Guy Wire Turn Buckled Stays for above 11 KV Towers between Donimalai to Kumaraswamy Head End.**	**1Lot.**				
14	**New Approach Roads to TH–1, Silo area, Tail / drive house of Down Hill Conveyor, TH-2, TH-2A, PS-1 and Electrical, control cum office building from the Approach Road Made by Package-I Secondary Crusher**	**1Lot**				

	Contractor.					
15	**Approach road to TH-3 from the kachcha road already developed by NMDC**	**1Lot**				
16	**Approach road to take-up area of down hill conveyor no. 723 and PS-2 near head end of down hill conveyor.**	**1Lot**				
17	**Approach road to TH-4, TH-5 & TH-6 from the roads available already.**					
18	**Approach road to belt lay down area(Appx, 300x10)Sq Meter at two locations. (Between Jeepable Road ,Donimalai to Kumaraswamy hilltop to be made to Avoid Tree Cutting Approvals from Forest Dept)**	**1Lot**				
19	**Creating Hard Top area, For Conveyor Belts Laydown and further handling during Erection .**	**2 Nos Each (300x10) Sq Metre.**				
20	**Complete structural work including structures for transfer houses, maintenance platforms, technological structures, conveyor galleries, trestles, etc.,**	**1Lot**				
21	**Water supply shall be from a take off point near outlet flange of the main hill top reservoir located near the service center, Kumaraswamy (at FGL 1042.00 m (Abs) for dust suppression system, drinking water, sanitary purpose, etc.** **Water Supply ,(sub distribution from Main Potable Water Storage Tank at Kumaraswamy Hill Top, to be done by NMDC)and sewerage disposal system as required at TH-1, TH-2, TH-2A, RCC Silo,**	**1Lot**			**Fire Water Sub distribution is in scope of FDSS Sub Vendor.** **Other water sub distribution by BHEL, The Main & Fire Water Storage Tanks are being done by NMDC.**	

	Tail/ drive house of down hill conveyor, TH-3, TH-4, TH-5, TH-6 Control Room/MCC rooms, etc					
C.	**ELECTRICS.**					
1	**Illumination of plant and, llumination of all conveyor galleries , Transfer Houses , electrical room. Outdoor area illumination.**					
2	**HT/LT switchgear, LT Transformers and shop electrics.Fixed P.F improvement Capacitor Banks. Control and power cables, signal cables, data cables, etc. Control panels, desks, PLC panel, VDU etc. ,Intra plant communication (PA System)**					
3	**Field safety switches, Control, PLC based automation, instrumentation and SCADA,HMI.**					
4	**Electronic Belt Rip Protection System for DHC#723, Reversible Conveyot#727. With interface to Plant Control HMI.**	**1Lot.**				
5	**Braking system for controlled starting, stopping of downhill conveyor under varying patterns of load and braking under no-power conditions**	**1Lot**				
6	**Braking system for reversible conveyor no. 727., with dedicated PLC Panel & Controller.**	**1Lot.**				
7	**VFD(VVVF) Regenerative System for 2x750 KW,690 V ac/1000RPM Down Hill Conveyor#723.**	**1Lot.**				
8	**1x400KW/1000RPM,**	**1Lot.**				

	Reversible VFD,Regenerative system for Reversible Conveyor#727.					
D.	**OTHER MISCELLANEOUS**					
1	**ENGINEERING ASSISTANCE ASPER CL#4 of ISG/DHC-001, Dt2nd April10.**	**LS with Break Up.**				
2	**Drawing & Documentation , O&M Manuals Hard & Soft Copies.**					
3	**Training of NMDC Personnel**					
E.	**ERECTION & COMMISIONING.**					
F.	**SPARES:** **2Years Applicable Normal &Maintenance Spares.**	**1Lot**				
1	**Commissioning& Insurance Spares.**	**1Lot**				
2	**Special Tools & Tackles, Instruments for Commissioning.**	**1Lot.**				