

TENDER FOR Package LSTK-12 Bid Document No.6695-CMG-G00-CA-0021

Package Description: 220kV Switchyard & Associated facilities

SYNOPSIS OF TENDER

SR. NO.	VOLUME NO.	NO. OF SECTIONS	DESCRIPTION
1	1	6	COMMERCIAL
			Contains Notice Inviting Tender (NIT) (BQC), Instructions To Bidders (ITB), General Conditions of Contract, Special Conditions (Part A) of LSTK Contract, Special Conditions (Part B) of LSTK Contract, Acknowledgement-Cum-Consent Letter, Proposal Forms, Schedule of Prices (SP) Forms, Commercial Questionnaire, Technical Questionnaire, Bank Guarantee formats
2	2	8	PROJECT MANAGEMENT, SCOPE OF SUPPLIES & SCOPE OF WORK
			Project Management & Planning, Scheduling & Monitoring System, Vendor List, Spare Philosophy, Battery Limit, Scope of Work & Scope of Supplies.
3	3	3	QA PLANS, CONSTRUCTION SPECIFICATIONS & COMMISSIONING
			QA Plan For Engineering & Shop Inspection, Construction Specifications, Construction QA & QC Requirements, Construction HSE Requirements, Construction Management Guideline, Commissioning & Performance Test Run
4	4	7	TECHNICAL DOCUMENTS
			Technical Specifications, General Engineering Specifications, Single Line Diagrams, Installation Standards etc.
5	5	1	REFERENCE DOCUMENTS
			Other Reference/Existing Documents

VOLUME - 1

COMMERCIAL

SECTION NO.	PART NO.	DOCUMENT NO.	DESCRIPTION	REV.
1		-	Notice Inviting Tender (BQC)	0
2		6695-PPM-0003	Acknowledgement-Cum- Consent Letter	0
3		6695-PPM-0004	Proposal Forms A - P	0
4		6695-PPM-0005	Instructions To Bidders - (I.T.B.)	0
5		6695-PPM-0006	Special Conditions of Contract (Part A & Part B)	0
6		6695-PPM-0007	Schedule of Prices (SP) Forms	0
7		6695-ELT-526-CA-0006	Technical Questionnaire	1
8		6695-PPM-0008	Commercial Questionnaire	0
9		-	General Conditions Of Contract	0
10		-	Bank Guarantee formats	0

SECTION NO.	PART NO.	DOCUMENT NO.	DESCRIPTION	REV.
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VOLUME - 2

PROJECT MANAGEMENT, SCOPE OF SUPPLIES & SCOPE OF WORK

1			Project Management	
	1	6695-PMG-G00-BD-0005	Project Execution Plan Requirement For Contractor	1
	2	6695-ELT-526-AB-0001	Document Matrix	1
	3	6695-PDM-G00-BD-0002	Vendor's Documentation	0
	4	6695-PMG-G00-BD-0006	IT & Software Requirements	0
2			Project Planning, Scheduling & Monitoring System	
	1	6695-PSC-G00-BE-0006	Project Planning, Scheduling & Monitoring System For Contractor	2
3			Vendor List & Spare Philosophy	
	1		Equipment Vendor List (Under approval with NALCO)	0
	2	6695-ELT-526-CA-0005	Spare Philosophy	1
4			Job Instruction	
	1	6695-ELT-526-CA-0003	General Job Instructions to Contractor	0
5			Battery Limit Documents	
	1	6695-ELT-526-CA-0004	Battery Limit & Interfaces - Electrical	2
6			Scope Of Work	
	1	6695-ELT-526-CA-0001	Scope Of Work For Contractor - General	0
	2	6695-ELT-526-CA-0002	Scope Of Work For Contractor - Electrical (220kV Switchyard & Associated facilities)	2
	3	6695-CVC-526-CA-0001	Scope Of Work For Contractor - Civil, Structural & Architectural	1
	4	6695-EQM-526-CA-0013	Scope Of Work For Contractor - Rotating Equipment	0
	5	6695-PIP-526-CA-0001	Scope Of Work For Contractor - Piping & Material Handling	0

VOLUME - 3

QA & HSE PLANS

1			Quality Assurance Plan Requirement	
	1	6695-ELT-526-CA-0007	Inspection Categorization Plan	1
	2	6695-CMG-G00-CA-005	Construction Quality Assurance & Control Requirements	1
	3	6695-ELT-G00-QA-0002	OAP for Site Installation, testing & Commissioning - Electrical	0
	4	6695-EQM-G00-QA-0001	Inspection Test Plan Requirements For Rotating Equipment	1

SECTION NO.	PART NO.	DOCUMENT NO.	DESCRIPTION	REV.
	5	6695-IEX-G00-EC-0001	Project Inspection & Test Plan For Shop Inspection - Static Equipment & Packages (For Electrical, refer respective ELTech Specs)	0
2			Health, Safety & Environmental Requirements	

SECTION NO.	PART NO.	DOCUMENT NO.	DESCRIPTION	REV.
	1	6695-CMG-G00-CA-0003	Construction Health, Safety & Environmental Requirements	1
3	1	6695-CMG-G00-CA-0004	Construction Management Requirements	1

VOLUME - 4

TECHNICAL DOCUMENTS

1			ELECTRICAL	
	1		General	
	1.1	6695-ELT-G00-EC-0002	General Engineering Specification - Electrical	4
	1.2	6695-ELT-G00-EC-0038	Design & Erection guidelines for electrical facilities & Installation	1
	1.3	6695-ELT-G00-FA-0001	Overall Key SLD	5
	1.4	6695-ELT-526-FA-0001	Single Line Diagram - For 220kV & 11kV system	2
	1.5	6695-ELT-526-FA-0002	Single Line Diagram – For LV Auxiliary Supply of 220 kV Switchyard	1
	1.6	6695-ELT-526-LH-0001	220kV Switchyard Equipment layout	2
	1.7	6695-ELT-526-LH-0007	Substation Arrangement layout - New 11kV Switchgear building -500 (LSTK)	0
	1.8	6695-ELT-G00-FS-0001	Typical I/O list for SCADA	1
	1.9	6695-ELT-G00-FA-0004	Typical SCADA Block diagram for Unit substation level networking	2
	1.10	6695-ELT-G00-FS-0002	SCADA I/O list for 220kV switchyard & Associated facilities	1
	1.11	6695-ELT-G00-FA-0005	Overall SCADA Block Diagram for 5th Stream Alumina Refinery	1
	1.12	6695-ELT-G00-EC-0003	Guidelines for Electrical Equipment Numbering System	2
	2		Technical Specifications of Electrical equipments	
	2.1	6695-ELT-G00-EC-0005	Technical Specification - Power Transformers	1
	2.2	6695-ELT-G00-EC-0039	Technical Specification - 220kV Circuit breaker	1
	2.3	6695-ELT-G00-EC-0040	Technical Specification - 220kV CT & PT	1
	2.4	6695-ELT-G00-EC-0041	Technical Specification - 220kV Insulators	0
	2.5	6695-ELT-G00-EC-0042	Technical Specification - 220kV Isolator with Integral Earth Switch	1
	2.6	6695-ELT-G00-EC-0043	Technical Specification - Lightning Arrestor for 220kV system	0
	2.7	6695-ELT-G00-EC-0044	Technical Specification - Control & Relay panel-220kV	0

SECTION NO.	PART NO.	DOCUMENT NO.	DESCRIPTION	REV.
	2.8	6695-ELT-G00-EC-0045	Technical Specification - 220kV system - Switchyard Busbar and other miscellaneous material	0
	2.9	6695-ELT-G00-EC-0046	Technical Specification - 220kV Switchyard Structures & Accessories	0
	2.10	6695-ELT-G00-EC-0047	Technical Specifications - Neutral Grounding Resistor (11kV)	0
	2.11	6695-ELT-G00-EC-0051	Technical Specifications - High Voltage Switchgear Panels (11KV& 33KV)	1
	2.12	6695-ELT-G00-EC-0036	Technical Specification - SCADA system	1
	2.13	6695-ELT-G00-EC-0048	Technical Specifications - Control interlocking and protection philosophy	2
	2.14	6695-ELT-G00-EC-0049	Technical Specifications - Fiber Optic Cables & Accessories.	0
	2.15	6695-ELT-G00-EC-0050	Technical Specifications - Extra High Voltage Cables and Accessories.	0
	2.16	6695-ELT-G00-EC-0053	Technical Specifications - VRLA	0
	2.17	6695-ELT-G00-EC-0017	Technical Specifications - Battery Charger	0
	2.18	6695-ELT-G00-EC-0052	Technical Specifications - High Voltage Cables	0
	2.19	6695-ELT-G00-EC-0019	Technical Specifications - Low Voltage Cables	0
	2.20	6695-ELT-G00-EC-0020	Technical Specifications - Miscellaneous Low Voltage Switchgear	0
	2.21	6695-ELT-G00-EC-0022	Technical Specifications - Industrial Light Fittings	0
	2.22	6695-ELT-G00-EC-0030	Technical Specifications - GI Cable Trays	1
	2.23	6695-ELT-G00-EC-0031	Technical Specifications - High mast for lighting	0
	2.24	6695-ELT-G00-EC-0027	Technical Specifications - Electrical Installation	0
	2.25	6695-ELT-G00-EC-0012	Technical Specification - Low Voltage Induction motors	0
	2.26	6695-ELT-G00-EC-0015	Technical Specification - Un-Interrupted Power Supplies(UPS)	0
2			PROCESS	
	1	6695-PRC-G00-EC-0001	Design Basis	1
3			ROTATING	
	1		General Engineering Specifications & Other Technical Documents	
	1.1	6695-HVA-G00-EC-0001	General Engineering Specification For HVAC	1
	2		Technical specifications	

SECTION NO.	PART NO.	DOCUMENT NO.	DESCRIPTION	REV.
	2.1	6695-HVA-G00-EC-0002	Technical Specification For HVAC & pressurisation unit	0
4			PIPING	
	1		Drawings	
	1.1	6695-LAY-G00-LD-0001	Overall Plot Plan	1
	2.0		General Engineering Specification	
	2.1	6695-PIP-G00-EC-0001	GES for Above ground steel piping	1
	2.2	6695-HES-G00-EC-0001	GES for Fire Fighting System (LSTK Packages)	2
5			CIVIL	
	1		General Documents	
	1.1	6695-CVC-G00-EC-0001	General Engineering Specification - Civil, Structural & Architectural	2
	1.2	6695-CVC-G00-EC-0002	Technical Specifications for Construction Works - Civil, Structural & Architectural	0
	1.3	6695-CVC-G00-EC-0003	Standard Instruction Design Calculation Documentation	1
	1.4	6695-CVC-G00-EB-0005	Standard Drawings - Architectural	0
	1.5	6695-CVC-G00-EB-0006	Standard Drawings - RCC	0
	1.6	6695-CVC-G00-EB-0007	Standard Drawings - Structural Steel	1
	2		Reference Document	
	2.1	6695-CVC-G00-DD-0001_Part A	Soil Investigation Report_DFR stage	0
		6695-CVC-G00-DD-0001_Part B	Geotechnological Investigation Report_April 2018	0
	2.2	6695-CVC-G00-DD-0002_Part A	Traverse & Topographic Survey (Contour Plan) Report	0
		6695-CVC-G00-DD-0002_Part B	Contour and Topographical Survey Report_April 2018	0
6			STATIC	
	1.0		General Documents	
	1.1	6695-EQS-G00-EC-0007	GES for Painting	1

VOLUME - 5

REFERENCE/EXISTING DOCUMENTS

1			Drawings of Existing facilities and Other Reference documents	
	1		Drawings of Existing Electrical facilities	
	2.0		Environmental documents	-

SECTION NO.	PART NO.	DOCUMENT NO.	DESCRIPTION	REV.
	3	1201-00-16-47-0102_R6	Existing Fire water network drawing	