

	PROJECT NAME	POPULAR GROUP OF INDUSTRIES							
	SUBJECT	Construction, Installation and Commissioning of an IV Solution Plant (LVP)							
	PROJECT TYPE	Turnkey Project							
	COUNTRY	Angola, Southern Africa							
	TECHNOLOGIES REQUIRED	ISBM for LVP							
	PRODUCTION CAPACITIES REQUIRED	7,000 for 100ml bottles for LVP.							
	PROJECT DEADLINE	TBD (To Be Discussed)							
	CURRENCY	USD							
	LIST OF EQUIPMENT AND SERVICES below								
	TITLE	SPECIFICATIONS	CAPACITY/MODEL	UNIT	QTY	UNIT COST	TOTAL USD	VALUE ENGINEERING	REMARKS
1	CONSULTING AND ENGINEERING DESIGN								
	CONCEPTUAL DESIGN, BASIC ENGINEERING DESIGN, DETAIL ENGINEERING DESIGN International standards: · EU Good Manufacturing Practices (GMP) · World Health Organization (WHO) guidelines · ISO 14644 cleanroom standards · FDA standards · Other standards and certificates to promote export			Job	1	TBD	TBD	TBD	
Sub-Total US\$.							-	-	
2	GMP CLEAN ROOM SYSTEMS								
	Includes cost of supply, installation & commissioning of:								
	MODULAR WALL PANELS	GMP-partition in color coated Steel, Thickness: 50mm, double side 0.426mm PCGI + rockwool, machinemade.		SQMT	3,650	275,000	275,000	190,000	BTI developed more economical and good quality vendor from China.
	MODULAR CEILING PANELS	GMP-partition in color coated Steel, Thickness: 50mm, double side 0.426mm PCGI + rockwool, machinemade.		SQMT	2,350				
	CLEAN ROOM WINDOWS	Thickness 50mm Double Layer Windows	950*980	MM	1				
		Thickness 50mm Double Layer Windows	1200*900	MM	3				
		Thickness 50mm Double Layer Windows	1500*900	MM	1				
		Thickness 50mm Double Layer Windows	1830*900	MM	30				
	CLEAN ROOM DOORS - SINGLE	Single swing door with window	900*2100*50	MM	55				
	CLEAN ROOM DOORS - DOUBLE	Double swing door for working area with window	900*2100*50	MM	35				
	COVINGS AND ACCESSORIES	Hoisting accessories Hoisting wire rod, flange screws, expansion, etc. Aluminum Covings	50mm	Lot	1				
	DOOR INTERLOCKS	Interlock system		Pc	40				
	PASS BOXES	Dynamic Pass box Outer size: 500*500*500mm		Pc	1				

4	WATER CHILLER FOR INJECTION MOLDING MACHINE	30P	Cooling Capacity: 189000Kcal/h. Compressor Power: 40HP. Built in Bump: 7.5HP. Water Flowing: 60.95m³/H. Refrigerant: R407C. Temperature: 5-35°C. Power: 380V/3Phase/50Hz	Pc	1	13,000	13,000	13,000	We will have to procure few items from Pakistan to reduce the cost like PW RO, WFI & PW Storage Tanks, HVAC Tools & Consumables, rest of other goods we buy from China without compromising the quality.
	FACTORY STEAM	Skid-Mounted Type Dual Fuel (Diesel+Gas) Steam Boiler	2000 kg/hour	Pc	1	42,000	42,000	35,000	
	PURE STEAM	Pure Steam Generator with Siemens HMI & PLC.	100 kg/hour	Pc	1	16,000	16,000	14,000	
	COMPRESSED AIR (LP)	Low Pressure Compressor	1. Screw: Gas Displacement 3m³/min, Pressure: 3.0MPa. 2. Cooling: 1.0 Mpa, Capacity 5m³. 3. Tank: Volume m³, Pressure: 1.0MPa. 4. Precision filter: Capacity 5Nm³/min, Pressure 1.0MPa, Solid particles ≤ 1U, residual oil amount ≤ 0.5ppm.	Pc	1	16,000	16,000	15,000	
	COMPRESSED AIR (HP)	Oil free water lubrication screw air compressor with Tank, Dryer, Filters, Air separator etc.	Screw type: Single screw. Discharge pressure: 13bar, Free air delivery: 9m³/min. Electric motor: 100hp 75KW 380v/50hz/3ph, IP55. Cooling: by air Starting method: Frequency conversion start. Discharge temperature: less than ambient +8 °C.	Pc	1	50,000	50,000	50,000	
	INSULATION			Lot	1	20,000	20,000	20,000	
	TOOLS & TACKLES	HVAC Tools, Tackles		Lot	1	10,000	10,000	8,000	
	CONSUMABLES	HVAC Consumables		Lot	1	25,000	25,000	15,000	
	INSTALLATION COST	Boarding, Lodging & Travelling, will be borne by Client.		Job	1	TBD	TBD	TBD	
	Sub-Total US\$.						500,000	363,000	
5	ELECTRICALS								We will procure these items from Pakistan.
	Includes cost of supply, installation & commissioning of:								
	TOTAL OF ELECTRICAL PANELS	LV, HT, Transformers, Switchgears		Lot	1	440,000	440,000	300,000	
	TOTAL OF UPS								
	TOTAL OF AHU CONTROL PANELS								
	TOTAL OF LIGHT FIXTURES								
	TOTAL OF SWITCH, SOCKET & ACCESSORIES								
	TOTAL OF TELEPHONE AND LAN OUT LETS								
	TOTAL OF CABLES & TERMINATION								
	TOTAL OF CABLE TRAY & SUPPORT								
	TOTAL OF POINT WIRING								
	TOTAL OF EARTHING AND LIGHTNING ARRESTER								
	TOTAL OF MISCELLANEOUS								
	Sub-Total US\$.								
PROCESS EQUIPMENTS									
Includes cost of supply, installation & commissioning of:									

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BOPP TAPPING MACHINE	GPk-40D & GPP-50C Automatic Carton Case Erecting Machine.	700-800 (ctns/hr)	Pc	1	NR	-	-	
MANUFACTURING TANK-1	SS316L Jacketed Manufacturing Tank (Three Layers).	8000L	Pc	1	35,000	35,000	35,000	
MANUFACTURING TANK-2	SS316L Jacketed Storage Tank (Three layers).	8000L	Pc	1	28,000	28,000	25,000	
TERMINAL STERILIZER FOR IV BOTTLES (W X H X D)	External measurement: 12220*4000*2540mm	SYS37	Pc	1	110,000	110,000	110,000	
WEIGHING BALANCE		BE1002	Pc	1	NR	-	-	
WEIGHING BALANCE		BE1002	Pc	1	NR	-	-	
DISPENSING / SAMPLING BOOTH	Structure: Made of 1.2 mm AISI SUS304# stainless steel, and the welding flatness angle is full welding without dead corners. The surface treatment has no welding marks. Double shells inside and outside to ensure seamless connection, dust-proof and easy to clean. Internal: 1850*1350*2100mm. External: 1950*2150*2650mm.		Pc	1	9,500	9,500	7,000	
FLOW WRAPPING MACHINE	DZP-400ST IV Bag Flow Packing Machine	5,000 bottles/hr @500ml	Pc	1	NR	-	-	
LABELING MACHINE (LAB CODING M/C)	Labeling Machine with Smart 300 Online Smart Printer.		Pc	1	9,500	9,500	9,500	
IV BOTTLE FILLING & SEALING MACHINE - ISBM	6cavity ISBM, 300T Injection Molding Machine, 1x36cavity Preform Molds (100ml).	7000bph @100ml bottle	Pc	1	600,000	600,000	600,000	
Sub-Total US\$.						792,000	786,500	
FIRE FIGHTING / EMERGENCY AND ALARM SYSTEM/BUILDING AUTOMATIC CONTROL MANAGEMENT SYSTEM								
<i>Includes cost of supply, installation & commissioning of:</i>								
EMERGENCY LIGHTS	Battery Operated Emergency / Exit lights circuit from light point to light point with 3Core 1.5mm2 (P+N+E) 60 min fire resistant LSZH Cu.Cond Cable, in including the cost of 1" dia Class-Electrical PVC conduit with all necessary conduiting complete in all respects. DEKRA / KEMA certified battery operated Emergency light with 3 hrs backup time make ALCO / Honeywell / TM Tech.		Job	1	1,500	1,500	1,500	
ACCESS SYSTEMS	CAT-6 Cable Make: Ventilux (UK) / Elan (EU) / Clipsal (EU) Cables Make: Newage cables / Fast cables / Pakistan cables / Coppergat cables / Golden star cables Conduit: Plasco / Beta / Dadex pipes / Approved Eqv. Access Control: Salto / Anviz.		Job	1	4,500	4,500	4,000	

TELEPHONES	Telecom outlet make: Clipsal (Vivace) / Legrand(Belanko) /Enermax Approved Equivalent Chinese Brand, Conduit Make: Plasco / Beta / Dadex pipes /GM/Popular/TP Approved Equivalent, Telecom/TV Cables: Ventilux(UK) / ELAN(UK) / Clipsal (EU) /Enermax, Molex (USA) / Corning (USA) / Enermax or Approved Equivalent. Supply & Laying of 1" dia PVC/UPVC class Electrical pipe to be laid under floor including floor cutting as required for Computer & Telephone outlets.		Job	1	12,000	12,000	8,000	
LOCAL AREA NETWORKS	CAT-6 Cable Make: Ventilux (UK) / Elan (EU) / Clipsal (EU) RJ-45 Outlet: Legrand (Belanko) / Clipsal (Vivace) / Approved Eqv as per Annex-A Cables Make: Newage cables / Fast cables / Pakistan cables / Coppergat cables / Golden star cables Conduit: Plasco / Beta / Dadex pipes Approved Eqv.		Job	1	1,500	1,500	1,500	
WI-FI NETWORKING SYSTEM	Wiring for each POE Wi-Fi Access points to be installed on walls / slabs or on false ceiling with 4 pair cable CAT-6 UTP Cable cable in pre laid PVC conduit / cable tray	Only Wiring Included, Client to provide all equipments.	Job	1	8,000	8,000	6,000	
BROADCASTING SYSTEM						-	-	
NETWORK, CCTV, TEMPERATURE, PRESSURE DISPLAY ALARM	CC TV SYSTEM (IP BASED): Equipment make: Alco (USA) / Dahua (China) / Honeywell (USA), / Samsung (Korea)/ or Equivalent Chinese Brand CCTV System Cable make: Ventilux (UK) / ELAN (EU) /Enermax or Approved Equivalent Conduit Make: GM/TP/Popular/Beta/Dadex Pipes/Approved Equivalent.		Job	1	5,000	5,000	4,000	
SMOKE ALARMS	Fire alarm junction boxes 16 SWG to be concealed in wall with 2 coats of antirust paint, earthing terminal, complete in all respects.		Job	1	2,000	2,000	1,500	
MONITORING SYSTEMS								
FIRE ALARMS								
SMOKE CONTROL	Connecting of addressable optical smoke detectors with built in isolators, complete in all respects and conforming to general specifications.		Job	1	5,000	5,000	4,000	
INSTALLATION COST			Job	1	TBD	TBD	TBD	
Sub-Total US\$.						39,500	30,500	
LABORATORY EQUIPEMENTS								

8	Includes cost of supply, installation & commissioning of: LABORATORY EQUIPMENTS Include all the physical, chemical, micro-biological test instruments Include all the test worktables, gown locker, shoe cabinets, container cabinet, test bench, wash basin, ozone generator, exhauster, glass ware, chemicals, computers, printers, lab instruments, consumables, etc.	Chemical Section: HPLC, Spectrophotometer, FTIR, Karl Fischer, TOC Analyzer, Polarity Meter, Conductivity Meter, PH Meter, Analytical Balance Electronic Digital, Flame Photometer, Refractometer, Melting Point Apparatus, Filtration Assembly, Conductivity Meter, Ultrasonic Bath, Vacuum Pump, Automatic Polari meter, Hot Plate with Stirrer, Muffle Furnace, Water Bath, Refrigerator , Fume Hood, Climatic Chamber, Moisture Analyzer, Analytical Balance, Liquid Particle Counter, Incubator. Microbiology Section: Particle Counter, Air Sampler, Incubator Digital, Vortex Mixer, Microscope, Manifold sterility Units (Three Station), Miro-Pipette, Electric Oven, Anemometer, Laminar Flow Vertical, Incubator, Pyrometer, Autoclave Temperature Gauge, Cool Incubator, Water Bath, Refrigerator, Colony Counter, Transfer Window, Hot Incubator, Weighing Balance.		Pc	1	250,000	250,000	150,000	We will procure from China in re-furbished condition.
	Sub-Total US\$.						250,000	150,000	
9	EPOXY FLOORING								
	Includes cost of supply, installation & commissioning of: EPOXY FLOORING	PVC floor 2mm thickness		SQMT	2,350	18.7	43,945	35,250	
	INSTALLATION COST			Job	1	TBD	TBD	TBD	
Sub-Total US\$.							43,945	35,250	
10	WAREHOUSE STORAGE RACKS								
	Includes cost of supply, installation & commissioning of: WAREHOUSE STORAGE RACKS	Pallet Rack: 16050mmH*1016mmD*2850mmL, G+10 levels, Frame 120*95*2.75/16050mmH*1016mmD, Beam 1 120*50*1.5/2850mmL @ 1800kg (clear size), Beam 2 80*50*1.5/1920mmL @ 1200kg (clear size), Row spacer 120mmL, Frame barrier 300mmH*2152mmL*76mm, Frame barrier 300mmH*1016mmL*76mm, Upright connection 120*450mmH*4.0mm, Material: Steel Q 235B. Surface treating: Powder coating.	600kg/pallet	Lot	1	250,000	250,000	100,000	We will buy from Pakistan. We recommend implementing a mandatory 14-day production quarantine.
	INSTALLATION COST			Job	1	TBD	TBD	TBD	
Sub-Total US\$.							250,000	100,000	
11	SS FURNITURE AND POWDER COATED FURNITURE								
	INCLUDES COST OF SUPPLY, INSTALLATION & COMMISSIONING OF								
	S.S FURNITURE:								
	S.S. GARMENT LOCKER, S.S. MIRROR POLISHED SHEET, S.S. PADDLE								
	S.S. IPA BOTTLE STAND WITH SS BOTTLE, S.S. USED GARMENT BIN								
	S.S. PERFORATED.TABLE-2, S.S. CROSS OVER BENCH, S.S. SINK								
	S.S. CABINET WITH 04 COMP, SS LAB CHAIR, S.S. RACKS								
	S.S. SOAP DISPENSER (READY MADE), S.S. FENDER								
	S.S. WORKING TABLE, SS EXECUTIVE CHAIR, S.S. PALLET								
	POWDER COATED FURNITURE:								
	POWDER COATED M.S. FILE CABINET, M.S. FIX CHAIR								
	M.S. REVOLVING STOOL, M.S. TABLE, M.S. SINK TABLE WITH GRANITE			Lot	1	80,000	80,000	40,000	We will buy from Pakistan.

	POWDER COATED LOCKER (4COMP.), POWDER COATED SHOE RACK								
	M.S. FIX CHAIR (EXECUTIVE CHAIR), M.S. EXECUTIVE TABLE								
	OTHER FACILITIES AND INSTRUMENTS FOR PRODUCTION Include pass box, manually trolley, electronic weighing, stainless steel barrels, washing machine, bench, pulsating vacuum sterilizer, weighing booth, ozone generator, Nitrogen generator and other			Lot	1	90,000	90,000	50,000	
	Sub-Total US\$.						170,000	90,000	
12	DOCUMENTATION - DQ, IQ & OQ FOR TURNKEY ENGINEERING SCOPE			Job	1	TBD	TBD	TBD	
	I.E FOR HVAC, UTILITIES, ELECTRICALS, PROCESS & LABORATORY								
	EQUIPMENTS ARE INCLUDED								
	Sub-Total US\$.						-	-	
13	SITE TEAM EXPENSES INCLUDING AIR FARE, VISA and LOCAL ACCOMMODATION ENGINEERING TRAINING FOR YOUR EMPLOYEES FOR THE WORK SCOPE	Boarding, Lodging & Travelling, will be borne by Client.		Job	1	TBD	TBD	TBD	
	Sub-Total US\$.						-	-	
	GRAND TOTAL USD.						3,260,195	2,345,250	