#### GROUP A BASIC RAW MATERIAL CONSUMABLE

**DESCRIPTION** 

**GREASE**)

AND TREFILES

NITROGENE N<sub>2</sub>

CARBON DIOXIDE CO2

**NUMBER** 

A24

A26

A27

A28

#### **A**1 FUEL - OIL, GAS-OIL AND PETROL A3 SF6 GAS A5 **CARPENTRY ARTICALS** A7 CHEMICAL PRODUCTS **ANTI - CORROSIVE PAINTING** A8 A9 LOCKS A10 STEEL CABLES A11 BLACK AND GALVANIZED STEEL PIPES WITH ACCESSORIES A13 GALVANIZED STEEL STRUCTURES A14 P.V.C PIPES A18 REFRACTORY BRICKS FOR HEATERS A19 INSULATING CALORIFIC PRODUCTS A21 RESIN FOR IONS INTERCHANGES FOR INSTALLATION

OF THE DERMINERALIZATION OF SOFT WATER OIL (DIELECTRIC, COMMAND, LUBRICATE AND

NON – FERROUS MATERIALS, ANGLES, LAMINATE

## GROUP B TOOLS-TRANSPORTATION-HANDLING- STOCK

NUMBER	DESCRIPTION
B1	TRUCK LOAD> = 3 T
B2	PICK UPS
B3	JEEP TRUCKS
B4	WAGON STATION
B5	PICK UPS EQUIPPED WITH INSULATED BASKET
DJ	WITH UNMOVALABLE ARMS
B7	TROLLEY TRANSPORTING ELECTRICAL
D/	
D0	ELEVATORS
B8	ELEVATORS
B9	BUSES AND VANS
B10	METALLIC TANKS
B13	WORKSHOPS FOR MAKING OF METALLIC BOXES
	FOR THE TRUCKS AND PICK UPS
B15	RUBBER TIRES
B16	CRANES
B17	BRIDGE TILL 80T
B18	TOURIST VEHICULES
B19	MACHINES - TOOLS FOR MECHANICAL WORKSHOP
B23	AIR COMPRESSORS
B25	EARTHING AND SHORT CIRCUIT EQUIPMENT,
	SAFETY MATERIALS AND TOOLS
B27	TRUCK - CRANES FROM 4 TO 12 TONS CAPACITY -
	CRANE: FROM 500 TO 5000 KGS
B28	BALL BEARINGS
B29	TRANSPALET < 3T

### GROUP C FURNITURE - PRINTS – CLOTHES

### NUMBER DESCRIPTION

C1	BANK NOTES COUNTERS
C2	FURNITURE
C3	DRAWING COPY MACHINES
C4	PRINTERS
C5	BLUE PAPERS
C6	CLOTHES
C7	CALCULATORS
C8	OFFICE SUPPLIES
C10	COMPUTER HARDWARE
C12	CONTINUOUS PAPERS
C14	<b>EQUIPMENTS FOR FACONNAGE CONTINOUS</b>
	PAPERS
C16	PHOTOCOPY MACHINES
C17	EVENT FAULT RECORDER PRINTER
C18	OXILLOPERTURBO GRAPH
C19	CAMERA
C20	SAFETY EQUIPMENTS
C21	MONITORING DEVICE

# GROUP D MEASURING DEVICES – ELECTRICAL TRANSMISSION

NUMBER	DESCRIPTION
D1*	ELECTRICAL METERS DEVICES
D2	ELECTRICAL MEASURING
D5	TRANSMETTER-RECEIVERS FOR WAVE LINKS (30 -
	300 KCYCLES)
D6	DETECTOR FAULT EQUIPMENTS FOR CABLES
D7*	MATERIALS FOR TRANSMISSION AND HANDLING
	OF INFORMATION RELATIVE TO H.V. ELECTRICAL
	NETWORK
D8	CENTRAL REMOTE CONTROL SYSTEMS
D9	RADIOS - TELEPHONES EQUIPMENTS
D10*	LINE MATERIALS FOR H.F.LINKS (LINE TRAP AND
	COUPLING CAPACITORS)
D11	TELEPHONE DEVICES
D12	MULTI CHANNELS MAGNETIC REGISTERING
	DEVICES
D13	DEVICES FOR MEASURING VIBRATION AMPLITUDE
	OF GENERATORS
D14*	CALIBRATING STATIONS FOR ELECTRICAL
	METERS
D17	DETECTION DEVICES AND LUMINOUS
	SIGNPOSTING OF FAULTS ON H.V. UNDERGROUND
	NETWORK
D18	EMF (ELECTRO MAGNETIC FIELD) METER
D19	GAS SF6 LEAK DETECTORS
D20	DEVICE FOR MEASURING EARTH RESISTANCE
D21	DEVICE FOR SURGE ARRESTER TESTING OF
	LEAKAGE CURRENT
D22	DEVICE FOR MEASURING INTERIOR ISOLATION
	TRASFORMER DOBLE
D23	THERMAL IMAGER DEVICE

### GROUP E ELECTRICAL ENERGY DISTRIBUTION

NUMBER	DESCRIPTION
E1	WOODEN POLES
E2*	CYLINDRICAL METALLIC TOWERS
E3	TOWER STEEL STRUCTURES AND SUPPORTS
E4*	TWISTED ISOLATED LV CABLES
E5	HOT DIP GALVANIZED TOWERS
E6	BARE COPPER CABLES
E7	ALUMINUM BARE CABLES AND ITS ALLOYS
E8*	LV SHIELD CABLES, ISOLATED CABLES<=430V
E9*	INSULATED CABLE MV <57 KV
E10*	TWISTED ISOLATED MV CABLES
E11	OIL PRESSURE IMPREGNATED PAPERS >=57KV HV
	INSULATED CABLES
E13*	POWER TRANSFOS MV & MV/LV
E14*	POWER TRANSFOS HV & HV/MV
E15*	HV PLASTIC INSULATED CABLES > =72KV
E16*	HV PLASTIC INSULATED CABLES 57
	KV<=ONE<72KV
E17*	LV AND MV MEASURING TRANSFORMERS
E18*	HV MEASURING TRANSFORMERS>=57KV
E19	JUNCTION, TERMINATION AND ACCESSORIES FOR
	CONNECTING OF LV & MV INSULATED CABLES
E20	PORCELAIN INSULATORS
E21	SYNTHETIC INSULATORS
E22	BUSHING & HV BUS BAR POST
	INSULATORS>=57KV
E23	HV GLASS INSULATORS
E24	PLASTIC BOXES AND BRANCHING & METERS
E26	PREFORMED MATERIAL OR EQUIVALENT
E27	OTHER BROCKETS
E28	GALVANIZED BROCKETS AND ACCESSORIES FOR
F20	INSULATORS STRINGS
E29	SHEET METAL ARTICALES
E30	SMALL SMELTING ARTICLES
E31	SMALL IRONWORK ARTICLES
E32	INSULATING OILED SHEETS
E34	EARTHING RODS
E35*	LV CIRCUIT BREAKERS

E37*	PROTECTION RELAYS
E38*	CONTACTORS LV (SWITCH)
E39*	ONE & THREE POLES AUTOMATIC AUTOCLOSERS
<b>L</b> 3)	WITH A VOLAGE CONTROL INTERLOCKING
	DEVICE
E40	LV FUSE
E41*	LV FUSE WITH H.P.C.
E42	LV DISTRIBUTION BOARD
E43*	MV FUSES<57KV WITH H.P.C.
E44*	FUSES WITH CARTRIDGE FUSE LOCK FOR
DTT	MV<57KV
E45	DISCONNECTOR SWITCH ONE POLE & TRIPOLES
	TYPE INTERIOR & EXTERIOR MV<57KV
E46*	DISCONNECTOR SWITCH MV<57KV WITHLOAD
E47	DISCONNECTOR SWITCH HV>=57KV
E49*	THREE POLES CIRCUIT BREAKERS MV<57KV
E50*	CIRCUIT BREAKERS HV>=57KV
E52	SURGE ARRESTERS MV<57KV
E53*	SURGE ARRESTERS 66/72.5KV
E54*	SURGE ARRESTERS HV>=150KV
E55*	CAPACITORS MV<57 KV
E56*	GIS BAY (SF6) FOR HV>=66KV
E57*	UNIT SUBSTATION CONSUMER TYPE MV/LV –
	INTERIOR AND EXTERIOR
E58*	FUSIBLE SWITCH WITH LOAD WITH H.P.C >=500
	MVA FOR 1>11KV
E59	PLASTIC WARNING NET WIRE FOR PROTECTING
	THE CABLES
E60	INSULATING MATERIAL FOR MAKING UP OF JOINT
	BOXES OR SEALING ENDS FOR OIL IMPREGNATD
	INSULATED CABLES
E61*	MOBILE S/S 66KV/MT OR 150KV/MV
E62*	PREFABRICATE CUBICLES WITH WITHDRAWBLE
	CIRCUIT BREAKER MV<=57KV
E63	PRESTRESSED CONCRETE TOWER
E64	EQUIPMENT TO CARRY THE DRUMS AND FOR
	CABLE STRANGING
E65	TEMPERED GLASS INSULATORS MV & LV
E67	TOOLS FOR THE CONSTRUCTION AND OPERATION
ECOV	TRANSMISSION LINES
E68*	PREFABBRICATED CUBICLES MV
E69	THERMAL RELAY

E70	TIMER RELAY
E71	AUXILIARY RELAY
E72	GIS 220 KV SF6 ACCESSORIES & SPARE PARTS

## GROUP F LIGHTING - MOTORS – ELECTRICAL GENERATION MISCELLANEOUS

NUMI	ERO	DESCRIPTION
F1		LIGHTING BULBS
F2		INTERIOR LIGHTING DEVICES
F3		EXTERIOR LIGHTING DEVICES
F4*		ACCUMULATOR BATTERIES
F5*		AIR COMPRESSOR WITH A CAPACITY OF MORE
		THAN 100 M3 PER HOUR AND A MINIMUM
		PRESSURE OF 10KG/CM3
F6*		EQUIPMENT FOR TREATMENT OF THE SOFT
		WATER
F7*		AIR CONDITIONNING DEVICES
F8*		AUTOMATIC EXTINGUISHING DEVICES WITH
		PULVERIZED WATER
F10		MOBILE INSTALLATIONS FOR OIL TREATMENTS
		OF TRANSFORMERS
F11*		PUMP
	F.11.1	CONDENS.EXTRACT.PUMPS
	F.11.2	FEED WATER PUMP
	F.11.3	PUMPS FOR GENER.SERVICE
	F.11.4	COOLING WATER PUMPS
F17*		CHLORE PRODUCTION DEPARTMENT
F18*		ELECTRICAL MOTORS
	F.18.1	ELECTRICAL MOTORS FOR CONDENS.
		EXTACT.PUMPS
	F.18.2	ELECTRICAL MOTORS FOR FEED WATER PUMP
	F.18.3	ELECTRICAL MOTORS FOR COOLING WATER
		PUMPS
F20		STATIC CONVERTERS
F22		BALLASTS FOR DISCHARGING BULBS
F23*		AIR HEATER
F24*		AUXILIARY BOILER

CONTROL ORGANISMS - INSURANCE
DESCRIPTION
AGENCIES AND CONTROL OF RECEPTION
CONSULTANTS
SYSTEM ANALYST AND SOFTWARE
DEVELOPMENT & IT
OFFICES FOR CONTROL AND SUPERVISION MT
LINES, POSTES, LT NETWORK AND BRANCHES
LEBANESE INSURANCE COMPANIES
CONSULTANT ENGINEERING FOR CIVIL
CONSTRUCTION
CONSULTANT ENGINEERING FOR THE SEALINE
CONSULTANT MECHANICAL ENGINEERING - HEAT
VENTILATION AIR CONDITIONNING (HVAC)
CONSULTANT ELECTROMECHANICAL
ENGINEERING - POWER GENERATION
CONSULTANT PROCESS ENGINEERING
CONSULTANT ELECTRICAL ENGINEERING -
SUB STATION
CONSULTANT TELECOMMUNICATON
CONSULTANT ELECTRICAL ENGINEERING –
TRANSMISSION

GRO	UP H	CONTRACTORS
NUM	IBER	DESCRIPTION
H1*		SUPPLIERS – CONTRACTORS OF SUBSTATIONS HV>=57 KV
H2*		HV OVERHEAD LINE EQUIPMENTS
H3*		HV DRY CABLES EQUIPMENT
H6		REPAIRING OF MV AND HV LINES
H8		TRENCH WORKS OF TOWERS IMPLANTATION
H9		TOWER PAINTING
H10		BRANCH ASSEMBLY
H11		DISTRIBUTION NETWORK WORKS AND MV/LV
H12		SEALINE OPERATING AND MAINTENANCE
H13		CONTRACTORS FOR REHABILITATION AND
		RECONSTRUCTION OF THE CIVIL ENGINREERING
		WORKS
H14		TOPOGRAPHIES HV LINES
H16		SPECIALIZED COMPANIES FOR WATERPROOF
		WORKS
H17		TRANSPORTATION OF FUEL PRODUCTS (BY
		TRUCK)
H18		WEIGHT TRANSPORTERS
H22		COASTAL WORK
H23		CLEANING WORKS FOR EDL'S HEAD OFFICE SUB-
		STATIONS
H25		ALUMINIUM CARPENTRY (JOINERY)
H26		INSTALLATION OF AIR-CONDITIONING
H28		ASSEMBLY WORKS FOR MECHANICAL AND
		ELECTROMECHANICAL EQUIPMENT AT EDL
		POWER PLANTS
	H.28.1.1	CONTRACTORS FOR MECHANICAL HIGH
		PRESSURE AND TEMPERATURE
	H.28.1.2	CONTRACTORS FOR ELECTRICAL HIGH VOLTAGE
		AMD PROTECTION
	H.28.2.1	CONTRACTORS ELECTROMECHANICAL –
		MECHANICAL WORKS IN THE POWER PLANT
H29		REPAIRING WORKS FOR LV AND MV
		TRANSFORMERS TILL THE MAX POWER OF 1000
		KVA
H30		METALLIC TANKS CONSTRUCTIONS

H31		GUARD SERVICE WORKS OF EDL
H32		REPAIRING WORKS
	H.32.1	REPAIRING WORKS FOR HV/HV AND HV/MV
		TRANSFORMERS < 72.2 KV
	H.32.2	REPAIRING WORKS FOR HV/HV AND HV/MV
		TRANSFORMERS < 170 KV
	H.32.3	REPAIRING WORKS FOR HV/HV AND HV/MV
		TRANSFORMERS < 245KV

GROUP I	ENGINEERING
NUMBER	DESCRIPTION
I1	PROCESS ENGINEERING
I2	MECHANICAL ENGINEERING
I3	ELECTRICAL ENGINEERING
I4	I&C ENGINEERING

GROUP J	ERECTION & CONSTRUCTION
NUMBER	DESCRIPTION
J1 J2 J3	CIVIL WORKS – ON SHORE ERECTION WORKS –OFF SHORE ELECTR.& I&C INSTALLATION

GROUP K SUBCONTRACTORS

NUMBER DESCRIPTION

K1 FUEL OIL SEA LINE

K2 COOLING WATER SYSTEM

K3 ON SHORE WORKS

K4 ERECTION

## GROUP L MAIN EQUIPMENT

## NUMBER DESCRIPTION

L1	GAS TURB. & ASSOC.EQPT
L2	STEAM TURB. & ASSOC.EQPT
L3	ELECTRICAL GENERATOR
L4	HEAT RECOVERY BOILER
L5	MAIN CONTROL SYSTEM
L6	STEAM BOILERS & ASSOCIATED EQUIPMENT

## GROUP M MECHANICAL. EQUIPMENT

### NUMBER DESCRIPTION

M14

M15

M16

M1		DEAERATORS
M2		L.P. HEATERS
M3		STEAM CONDENS.(WATER)
M4		MAIN BUTTERFLY VALVES
M5		CONDENS.CLEANING SYSTEM
M6		PIPING SYSTEM PIPES (PREFABRICAT.)
M7		VALVES
M8		VALVE ACTUATORS
M9		SCREEN PLANT AT C.W INTAKE
M10		WATER DEMINERALIZ.PLANT
M11		WASTE WATER TREAT. PLANTS
M12		POTABLE WATER PLANTS
M13		LIGHT, HEAVY & CRUDE OIL SYSTEMS
	M.13.1	FILTERS
	M.13.2	OIL HEATERS
	M.13.3	FUEL OIL TREATMENT

**GAS REDUCING STATION** 

DIESEL GENERATORS THERMAL INSULATIONS

## GROUP N ELECTRICAL SUPPLIERS

NUMBER		DESCRIPTION
N1		MAIN GENERATOR AND ACCESSORIES
	N.1.1	EXCITATION SYSTEM BUS DUCTS
N2		POWER TRANSFORMERS
	N.2.1	AUXILIARY TRANSFORMERS (CAST RESIN)
N3		GENERATOR MAIN CONNECTIONS
	N.3.1	ISOPHASE BUS DUCTS
	N.3.2	EQUIPMENT FOR GAS TURBINE PCC
N4		EQUIPMENT FOR GAS TURBINE SIEMENS PCC
N5		MEDIUM VOLTAGE EQUIPMENT
	N.5.1	NEUTRAL GROUND.RESISTORS
N6		LOW VOLTAGE SWITCHGEAR
	N.6.1	POWER CENTER SWITCHGEAR
	N.6.2	MOTOR CONTROL CENTER SWITCHGEAR
	N.6.3	DISTRIBUTION SWITCHGEAR
	N.6.4	AIR AND MOLDED CASE C.B
	N.6.5	LV. CONTACTORS
N7		EMERGENCY EQUIPMENT
	N.7.1	BATTERY CHARGER/RECTIFIER
	N.7.2	INVERTERS AND U.P.S
N8		CONTROL, PROTECTIONS AND METERING
	N.8.1	ELECTRICAL PROTECTIONS FOR POWER
		STATION
N9		ELECTRICAL MISCELLANEOUS
	N.9.1	GROUNDING SYSTEM
	N.9.2	POWER AND CONTROL CABLES
	N.9.3	CATHODIC PROTECTION
N10		INTERPLANT COMMUNICATION & CLOCK
		SYSTEM
	N.10.1	PAGE/PARTY LINE SYSTEM
N11		H. V. EQUIPMENT
	N.11.1	G.I.S. SWITCHGEAR (220KV)
	N.11.2	CONVENTIONAL SWITCHGEAR (66KV)

I & C SUPPLIES
DESCRIPTION
DISTRIB.CONTROL SYSTEM
CONTROL VALVES
TURBINE BY-PASS CONTROL VALVES
PROCESS SWITCHES
PROCESS GAUGES
GAS ANALIZERS
WATER/STEAM ANALISYS
PCC - GAS TURBINE CONTROL CENTER

### GROUP P ACCOMMODATION AND LOGISTICS

### NUMBER DESCRIPTION

P1 HOTELS

P2 CAR RENTAL

P3 TRAVEL AGENCIES

P4 BUSINESS CENTER SERVICES

## **GROUP LIST**

GROUP A	BASIC RAW MATERIAL CONSUMABLE MATERIALS
GROUP B	TOOLS-TRANSPORTATION-HANDLING- STOCK
GROUP C	FURNITURE - PRINTS – CLOTHES
GROUP D	MEASURING DEVICES – ELECTRICAL TRANSMISSION
GROUP E	ELECTRICAL ENERGY DISTRIBUTION
GROUP F	LIGHTING - MOTORS – ELECTRICAL GENERATION MISCELLANEOUS
GROUP G	CONTROL ORGANISMS - INSURANCE
GROUP H	CONTRACTORS
GROUP I	ENGINEERING
GROUP J	ERECTION & CONSTRUCTION
GROUP k	SUBCONTRACTORS
GROUP L	MAIN EQUIPMENT
GROUP M	MECHANICAL. EQUIPMENT
GROUP N	ELECTRICAL SUPPLIERS
GROUPE O	I & C SUPPLIES
GROUP P	ACCOMMODATION AND LOGISTICS