

**UNITED ARAB EMIRATES**  
**FEDERAL ELECTRICITY & WATER AUTHORITY**

**FEWA SPECIFICATION FOR**  
**PILOT CABLE TERMINATION CUBICLES**

# **FEWA SPECIFICATION FOR PILOT CABLE TERMINATION CUBICLE**

## **1.1 Standard specifications**

The Pilot Cable Termination Cubicle shall conform to the latest international standard which shall be subject to the approval of the FEWA. One copy of each specification in English language to which the Terminal Cubicles and their components are manufactured and tested shall be submitted with the offer.

## **1.2 Site Conditions**

The Cubicle shall be installed Indoor in UAE in salt laden dusty atmosphere where the maximum humidity of 100% and maximum ambient temperature of 50 deg. C can be experienced. The Cubicle shall be suitable for continuous operation at the above site conditions.

## **1.3 Scope and nature of work**

The specification provides for design, manufacture, test at manufacturer's works in presence of FEWA representatives, suitable packing, transportation and off-loading at site of works or FEWA stores in satisfactory condition and proper stacking as directed by FEWA.

The Cubicle shall be of Indoor substation, suitable type, the dimension should be such that it can accommodate all accessories and equipments keeping in view the safe distance from the live parts and phase to phase clearance according to the international standards is enclosed for Tendering purpose only. The cubicle shall have a earth bar assembly fitted with 6 STB 17 test sockets for earthing of the PPT / 40 terminals. A separate earth bar for screen earthing.

### **1.3.1 Danger Plate**

Danger plate in both Arabic and English languages approved by FEWA shall be fixed in the doors. The words property of FEWA – UAE should either be embossed on the enclosure or written clearly on a separate plate of approved design to be fixed on the enclosure.

### **1.3.2 Mounting arrangements**

Suitable mounting arrangements shall be available. All non – live metallic parts shall be internally connected to the earth bus bar. Suitable provision of cable ducts to be provided.

## **1.4 Special Tools**

Any special tool for working in the cubicle has to be provided with each unit. Tenderers are required to state the same during tendering.

## **1.5 Testing**

Every cubicle is to be routine tested according to the relevant specification. The routine tests should include AC voltage withstand test besides other routine tests. Routine tests will be carried out in the presence of FEWA representatives at the manufacturer's works. The supplier shall make provision in his offer to bear all costs that are incurred in carrying out these tests to the satisfaction of FEWA. However, costs towards travel, accommodation etc. of FEWA representatives shall not be included in the quoted price.

- 1.6 Detailed Technical grantee particular to be submitted with offer.
- 1.7 Detailed Constructional Drawing to be submitted with the offer.
- 1.8 Experience list of Manufacturer of the Pilot wire terminal cubicle to be submitted with the offer.

1.9 **Detailed Technical Specification:**

2 mm thick electro-galvanised sheet steel enclosures, and electro-statically powder coated to colour RAL 7032(grey) externally, and colour white inside, with lockable hinged door, 4mm thick aluminium top gland plate and 10 mm thick tufnol bottom gland plate fitted with 1 vertical bank of 40 off PPT/35 terminals all tagged on both sides with dekafix markers. 1 of 25x5 mm copper earth bar assembly fitted with 2 rows of 20 off STB17 test plug bolts, for pilot core earth core connections. Enclosure fitted with SAKG 40 sliding disconnect earth link assembly connected to Earth stud in enclosure via 70 mm. sq. green/yellow, earth cable. The earth bar is linked via M14 earth stud via 70 mm sq. green/yellow, earth cable. 1 x Ssch earth bar fitted with 40 x ZB4 clamps for screen earthing. 4 off Test leads fitted with PS4 plugs housed in enclosure lid.

1.10 **Schedule of Technical Particulars & Guarantees:**

Sl. No.	Description	Unit	Data / Particulars
1	Pilot Cable Termination Cabinets	No.	
2	Manufacturer		
3	Size & Type of Cabinets		
4	Type of Construction		
5	Thickness of sheeting	mm	
6	Panel Heat Loss		
7	Surface finish: - Paint thickness - Colour		
8	Method of mounting terminal blocks		
9	Protection Class IP55		
10	Anti-condensation heater and lamp		
11	Type of Cable entry		
12	Method of Glanding and type of terminals		
13	Terminals to withstand 15kV	Yes/No	

1.11 **15kV High Voltage Tests:**

Task: To conduct high voltage tests on Pilot Termination Cabinets.

Procedure:

15kV AC applied between all even numbered PPT's connected in series and all odd numbered PPT's connected in series.

Test duration : 1 minute

15 kV AC applied between all PPT's connected in series and earth.

Test duration : 1 minute.

15kV AC applied between isolated SAKG and earth.

Test duration : 1 minute.

Equipment : High voltage test equipment.

**SCHEDULE 'A'**

**SUB-MANUFACTURERS**

The Tenderer shall state below the names of the sub-manufacturers to the main manufacturer and details of the equipment proposed to be manufactured or supplied by them:

Name & Address of the Sub-Manufacturer	Description of Equipment

Signature : \_\_\_\_\_

Designation : \_\_\_\_\_

Name of Tenderer : \_\_\_\_\_

Date : \_\_\_\_\_

**SCHEDULE 'B'**

**PLACE OF MANUFACTURE, TESTING AND INSPECTION**

The Tenderer to complete the following schedule for all materials he proposes to supply

Item No.	Description	Manufacturer	Place of manufacture	Place of testing and inspection

Signature : \_\_\_\_\_

Designation : \_\_\_\_\_

Name of Tenderer : \_\_\_\_\_

Date : \_\_\_\_\_

**SCHEDULE 'C'**

**DEVIATION FROM TENDER SPECIFICATION**

Normally, the tender shall quote for all the items and quantities in the price schedule based on tender specification requirements. The basis of the offer submitted by the tenderer to arrive at the quote price should include compliance with specification requirements as well as deviations, if any. Such deviations, from the specification shall be brought out and tabulated in the table given below. The extra cost, if any, required by the tenderer to fully comply with the specification (assume deviation is not accepted by FEWA) shall be indicated against the each deviations. If extra cost is not indicated in the table given below, against the deviation, it shall be deemed that the tenderer has no extra cost to fully comply with the specification requirement.

SI No.	BOQ Item No.	Description As per BOQ	Qty.	Deviation from specification	Extra cost for Fully complying With specification

NB: Deviations other than those listed above will not be accepted under any circumstances.

Signature : \_\_\_\_\_

Designation : \_\_\_\_\_

Name of Tenderer : \_\_\_\_\_

Date : \_\_\_\_\_

**SCHEDULE 'D'**

**DETAIL OF PAST EXPERIENCE OF MANUFACTURER**

Name & Address	Quantity Supplied	Year of Supply	Remarks

Signature : \_\_\_\_\_  
Designation : \_\_\_\_\_  
Name of Tenderer : \_\_\_\_\_  
Date : \_\_\_\_\_