INDEPENDENT POWER TRANSMISSION OPERATOR **DECEMBER 2019**
TRANSMISSION SYSTEM MAINTENANCE DEPARTMENT
MEASUREMENTS AND INSTRUMENTS SECTION

SPECIFICATION – ΤΜΟ-ΠΜ1912
METERING CUBICLE ASSEMBLY

PART I

I. SCOPE

This specification covers the the purchasing requirements of standard boards Metering Cubicle Assembly for the installation of metering equipment.

II. GENERAL REQUIREMENTS

1. The metering cubicles will be composed by detachable parts suitable for transportation and installation purposes on site. Tables can be installed independently or in cascade.

2. All cubicles will be of metallic structure and suitable for indoor installation in the control buildings of the substations. The metal parts of the cubicles will also have a suitable anti-corrosion treatment and will have a sufficient colour coating to prevent corrosion in damp places. The colour of the cubicles will be light beige. The panels will be suitable for any extensions or modifications and will be complete with all the necessary fittings for the mounting electrical components e.g. cable canals, rails, cables, earthings, etc.

3. The cubicle shall have a metal door in the front. The external door will have a suitable metal frame and an appropriate safety glass or transparent polycarbonate sheet of at least 6 mm, so that the metering equipment is visible if the door is closed and sealed. It is clarified that the metal frame will not cover the installation space of metering devices. The door will be mounted on suitable hinges to can open completely to allow access in the interior of the cubicle. The door it can be removed by lifting to allow more access by the electrical works in the cubicle. The outer door shall be about 5 cm from the floor.

4. Inside the cubicle and 6 cm away from the front door, will be an internal door with a rigid metal frame and suitable horizontal sections. The sections will be made of shaped metal sheets and will be able to mounting the electricity meters, instruments, data recorders, etc. The horizontal sections of the metal frame of the door will have also holes type "RACK" to fasten the horizontal sections.

The internal cubicle door will be mounted on suitable hinges to can open completely to allow access in the interior of the cubicle. The thickness of the metal sheets shall not be less than 2 mm. The sections of metal steels will be in accordance with the requirements of the project and will be approved by DSMD/CSB/MIS. Indicatively there will be large frames at the top and bottom for the installation of data recorders, instruments, test sockets etc. and smaller frames for the installation of two (2) electricity meters in each frame.

5. In case that the cubicle is supplied by a User under an Agreement, the assembly, the mounting and support works and support works will be performed by the User on site.

6. The doors should be have with suitable handles and safety locks. Handles and safety locks shall not be more than 1.8 m above the floor surface.

7. At the bottom and at the top there will be panel blinds or ventilation openings which will be covered internally with an anti-corrosion metal sieve. Blinds or openings shall not limit the space available for the installation of metering equipment.

8. Each cubicle shall have a suitable lighting fixture for its interior lighting. The luminaire lamp will not cause blur and will be controlled by a door switch. Each cubicle will be have the lighting fixture, the luminaire lamp, the terminal switch as well as the corresponding accessories.

9. Each cubicle shall have a suitable heater with an independent adjustable thermostat. Each cubicle will be have the heating resistance, the thermostat and their installation materials.

10. The cubicle will be complete with all the necessary fittings for the mounting electrical components e.g. cable canals, rails, cables, earthings, etc. Each panel shall have a suitable cable-mounting bar as well as the components required for mounting them. The cable sheaths will be grounded on the ground bar of the cubicle. Each cubicle will also be fitted with adjustable metal frames to close the bottom compartment.

11. Care should be taken that all metal parts of the cubicle are electrically grounded. The moving parts will be grounded with a suitable flexible copper conductor. Each panel shall have a suitable ground bar, which shall be connected to the grounding system of the substation with a galvanized copper grounding tape (at least 25 x 3mm) or an equivalent flexible conductor.

PART II

SPECIAL REQUIREMENTS

1. Dimensions of the cubicles: 0,80 x 0,80 x 2,00 m.
2. The cubicles shall be suitable for a permanent load of at least 120 kgr.
3. Protection category IP 20 according to EN 60529/10.91
4. All surfaces of the metallic elements of the cubicles shall be machined treatment to avoid sharp edges, spikes, bumpy surfaces, etc. The cubicles will also have a suitable anti-corrosion treatment and will be painted with suitable electrostatic paint. The colour of the cubicles will be light beige.

PART III

DRAWINGS AND TECHNICAL LEAFLETS

For the technical evaluation of the offer will be given the followings:

1. Drawing the technical description referring to the above technical requirements.
2. Reference list for the offered cubicles.