Annexure -1

Amendment to IS 13779 : As submitted to ETD13 (Changes made as per Panel 2 meeting held on 3rd Jan 24)

AMENDMENT NO. 1

TO

IS 13779: 2020 a.c. STATIC WATTHOUR METERS, CLASS 1 AND 2 – SPECIFICATION

(Second Revision)

(*Page 5, clause* ***6.4***, para 2) — replace 135°C by 124°C.

*(Page 8, clause **7.1**)* — Insert the following at the end of the clause (this para is moved here from clause 11.6):

It is preferable that the connection to the auxiliary pulse output is/are marked to indicate the correct method of connection, if these connections are made by means of plugs and sockets, these connections should be irreversible.

*(Page 8, clause **7.1**)* — Add the following item, after item p):

q) The suitable installation environmental rating applicable, being either 'Indoor Meter' or 'Outdoor Meter'

(Page 9, table 11) — replace "0.70 to 1.2 Vref " by "0.00 to 1.2 Vref "

(Page 11, table 17) — replace the complete row (i) of table 17 by following;

Sl No.	**Influence Quantities**	**Value of Current (Balanced Unless Otherwise Stated)**	**Power Factor**	**Limit of Variation in Percentage Error for Meters of Class**	
				1	**2**
(1)	(2)	(3)	(4)	(5)	(6)
(i)	Voltage variation ±10 %	I_b	1 0.5 lagging	0.7 1.0	1.0 1.5
	>10% to 20% and < -10% to -20%		1 0.5 lagging	2.1 3.0	3.0 4.5
	>20% to 30% and < -20% to -30%		1 0.5 lagging	3.5 5.0	5.0 7.5
	< -30% to -100%		1 0.5 lagging	+10 to -100 +10 to -100	+10 to -100 +10 to -100

(Page 11, table 17) — replace the note1 by following;

1 : left blank

*(Page 12, clause **11.6**, para 2)* — Substitute the following for the existing (existing para is moved to clause 7.1):

The allowed error in meter constant shall not be more than 0.20 percent for class 1 meter and 0.40 percent for class 2 meter.

*(Page 15, clause **12.7.6.1**, para 5)* — Substitute the para 5 by following:

During the impulse and the a.c. voltage tests, the circuits which are not under test are connected to the earth as indicated hereafter. No puncture or partial breakdown of solid insulation shall occur. A flashover (capacitance discharge) during impulse test is not necessarily a criterion of failure as this may occur in a position that does not damage and the manufacturer shall decide, whether or not to eliminate the cause. The meter shall withstand a.c. voltage as per 12.7.6.3 and insulation resistance is as per 12.7.6.4.

*(Page 16, clause **12.7.6.3**, Table 21)* — Delete the last test point d) of B).

*(Page 18, clause **12.9.6.**,)* — Replace complete clause 12.9.6 by below text.

12.9.6 Radio Interference Measurement

a) For meters to be used without any wireless communication feature

The test for radio interference shall be carried out as per IS 6873 (Part 2/Sec 1). The input to be applied to meter during test is reference voltage, load current between 0.1 Ib to Ib at UPF.

1) Test for conducted emission for the frequency range 0.15 MHz to 30 MHz

The test shall be carried out on mains port as per clause 4.3.3 of IS 6873 (Part 2/Sec 1). For mains ports, the limits specified in columns 2 and 3 of Table 5 of IS 6873 (Part 2/Sec 1) apply.

2) Test for radiated emission for frequency range 30 MHz to 300 MHz

The test shall be carried out as per clause 5.3.3 or 5.3.4 of IS 6873 (Part 2/Sec 1). The limits specified in columns 2 and 3 of Table 7 or of Table 9 respectively, of IS 6873 (Part 2/Sec 1) apply.

b) For meters having or to be used with wireless communication feature

The test for radio interference shall be carried out for the frequencies as per IS/CISPR 32. The input to be applied to meter during test is reference voltage, load current between 0.1b to Ib (any one value) at UPF. The meter shall be tested as table top equipment and shall meet class B equipment requirements of IS/CISPR 32.

*(Page 23, Annex **C**)* — Substitute the note 2 with below:

Note 2 : It is recommended to use a meter of same type as the EUT in place of balancing impedance. It is not necessary to power up the meter used as balancing impedance

*(Page 29, Annex **H**, heading)* — Substitute the following for the existing:

EXAMPLES OF STANDARD CONNECTION DIAGRAMS