BUREAU OF INDIAN STANDARDS

AGENDA

Name of the Committee	No. of Meeting	Day	Date	Time	Venue
Equipment for Electrical Energy Measurement and Load Control Sectional Committee, ETD 13	44 th	Tuesday	11/06/2024	10:30 hrs	Hybrid mode Place: BIS HQ, New Delhi Joining link: https://bismanak.webex.com/bismanak/j.php?MTID=mc8a470f5eaf057d5c143f857f0f07a7e Meeting number: 2517 131 3258 Password: ETD@13

CHAIRMAN: Shri B A Sawle MEMBER SECRETARY: Shri Emanuel Abhishek Murmu

Item 0 WELCOME & OPENING REMARKS BY THE CHAIRPERSON

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

1.1 The minutes of the last meeting (43rd meeting) of Equipment for Electrical Energy Measurement and Load Control Sectional Committee, ETD 13 held on 05 January 2024 through video conferencing were circulated on 19 January 2024. In view of no technical comments received, the committee may formally approve the Minutes of last meeting.

The committee may consider.

Item 2 ACTIONS ARISING OUT OF PREVIOUS MEETING

Sr. No.	Item no. of last minutes	Subject	Decision taken during the last meeting	Action/ Remarks
1	net metering in IS 15884 the change in Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 being brought by their draft Amd. 4. Given the above change, CEA has	committee meeting, letter was received from CEA regarding provision of net metering in IS 15884 owing to the change in Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 being brought by their draft Amd. 4. Given the above change, CEA had asked to	prepaid functionality (Remote) will be handled at MDM end and IS 15959 (Part 2) has provisions to shift to pre-paid functionality. However, it was decided to re-discuss this in presence of CEA again in the next meeting as committee requested for clarification regarding the exact nature of change being asked by	Committee may discuss.

Sr. No.	Item no. of last minutes	Subject	Decision taken during	Action/ Remarks
NO.	minutes		the last meeting	Kemarks
			Ms Pooja (CEA) agreed	
			to communicate	
			regarding the same to the relevant division of	
			CEA.	
			Remained undiscussed	
			as there was no	
			representative from	
			CEA present during the	
			meeting.	
	Letter received from	A Letter from CEA	-	Committee
	CEA regarding	regarding		may discuss.
	Advanced Metering	Standardisation of		mity discussi
	Infrastructure	Advanced Metering		
		Infrastructure (AMI)		
		Chain from Smart Meter		
		up to Billing Software		
2		and inter-operability at		
-		Head End System		
		(HES) and further layers		
		in AMI chain to		
		eliminate the vendor		
		driven approach has		
		been received by BIS.		
		(see Annex 2)		
	Informative	The committee had	Mr Shivakumar, CPRI	Panel 1/WG 2
	annexures to IS 15959	decided that an	Bengaluru agreed to	may update on
	(Parts 1, 2, 3) for	informative annexure	work with Mr B M	the status of
	guidance on	shall be added to IS	Vyas, M/s YMPL in	work.
	interpretation and	15959 (Part 1, 2 and 3)	order to prepare the	
	implementation of IS	for guidance on	informative annexures.	
	15959 series	interpretation and	The working group	
		implementation of the		
		provisions (eg.	the drafts in 2 months'	
		programming	time for consideration of	
		conditions) of these	the committee.	
		standards. A working	M C1 ' 1	
,		group P1/WG 2 was		
3	X ,	constituted for discussion and	informed that the draft	
		discussion and formulation of the	shall be submitted latest by end of October 2023.	
		informative annexures.	by end of October 2025.	
		miormative aimexures.		
		Shri Balagopal		
		informed the committee		
		that a draft has been		
		prepared by Shri		
		Shivakumar. He		
		informed that the draft		
		can be finalized after		
		further deliberation in		
		the panel.		

Sr. No.	Item no. of last minutes	Subject	Decision taken during the last meeting	Action/ Remarks
		It was decided to		
		appoint Mr B M Vyas as		
		the convener of P1/WG		
		2. The panel		
		composition was also		
		updated. The		
		composition of the panel		
		is as follows:		
		1) Shri B M Vyas, M/s		
		YMPL – Convener		4
		2) Shri Balagopal, M/s		
		Kalkitech		
		3) Shri Deepak Nimare		
		4) Shri Viji Bharati,		
		CPRI		
		5) Shri Aashish Kumar		
		Gaur		
		6) Shri R Karthik, M/s	X	
		Schneider Electric Pvt.		
		Ltd.		
		7) Shri Devendra Vyas,		
		M/s HPL Electric & Power Ltd.		
		8) Shri Rajnish Ameta 9) Shri Shailendra		
		Goyal, M/s Zera		
		10) Shri Bajrang		
		Agarwal, M/s Genus		
		Agai wai, M/S Gellus		

The committee may consider.

Item 3 REVISION OF/ AMENDMENTS TO EXISTING INDIAN STANDARDS

Sr. No.	Item	Background	Decision of the last meetings	Action/Remarks
	Is 15959 (Part 1): 2011 Data Exchange for Electricity Meter Reading, Tariff and Load Control - Companion Specification (REVISION) Doc ETD 13 (21555)	Mr Aashish Gaur, M/s Genus (Convener, P1/WG 1) informed the committee that the final merged document incorporating the panel recommendations has been prepared. It was decided to list the changes made in the document since its last amendment (i.e. Amd. 5 to IS 15959 (Part 1):	meetings Committee has decided to send a letter to the International Electrotechnical Commission (IEC) inquiring about the nature of the agreement between IEC and DLMS. The purpose of this is to mitigate any potential implications on the SMITHA tool concerning any	Action/Remarks Committee may discuss.
		2011 edition) and include the same in the Foreword of the		

Sr. No.	Item	Background	Decision of the last meetings	Action/Remarks
No.	Item	document. Mr Gaur agreed to incorporate this list of changes in the Foreword and submit the document to BIS. Members were requested to examine the document and provide comments within stipulated time. A proposal was received from CPRI regarding the integrational of SMITHA-BSMA, an indigenous testing tool (for metering protocol related to IS 15959 series as IS 16444 series) is jointly developed by CPRI and CDAC, into the existing standards. This issue was discussed in the Panel 1 meeting held on July 26th at CPRI, Bangalore, and a P-draft document has been prepared by the Panel, which includes this proposal as well as other comments received during the preliminary draft circulation. With regards to concerns raised by some committee members regarding the legal implications of deploying and commercializing an Indigenous test tool, which is based on the IEC 62056 standard, derived from the content of DLMS UA. Mr Om Krishan from MEITY has assured that	meetings The following members will draft the letter: 1. Dr Om Krishan Singh (Convener) 2. Shri Vinoo S Warrier 3. Shri K Jiju 4. Mr. Shri Shailendra Goyal Apart from this, BIS will explore the possibility to take the	Action/Remarks
		they will re- evaluate the legal aspects of this tool		

Sr. No.	Item	Background	Decision of the last meetings	Action/Remarks
		to prevent any future intellectual property infringement issues. Panel 1 was asked to review the IS 15959 series and remove the reference of DLMS from the standard. It was also decided to the retain the line as stated in note 9 under Table no. 31 and note 7 under table no. 48 as mentioned in amendment No 5 to IS 15959 (Part 1): 2011 and additional lines that are not in Amendment no 5 are to be removed.		
2	IS 15959 (Part 2): 2016 Data Exchange for Electricity Meter Reading, Tariff and Load Control-Companion Specification (AMENDMENT NO. 03) & Transition of the Security Mechanism	The committee had decided that a method of implementation needs to be formulated for transition of the Security Mechanism (IS 15959 series). A Working Group P1/WG 3 under the convenership was formed. The composition of the WG is given below: Mr Vinoo S. Warrier, Kalkitech-Convener 1) Ms Viji Bharathi, CPRI 2) Mr Shivakumar, CPRI 3) M/s Tata Power 4) M/s L+G 5) M/s HPL 6) M/s Secure Meters 7) M/s Genus 8) M/s CESC 9)Mr Deepak Nimare, M/s Cyanconnode. Additional members were to be coopted by the convener for completing the task as recommended by the	The committee agreed to keep the security mechanism id 2 and 5 as alternate permitted options to allow smooth transition in future and the same is to be incorporated in IS 15959 series. Mr Aashish Gaur, M/s Genus confirmed that he had incorporated the same in IS 15959 (Part 2) amendment document. Security mechanism id 2 and 5 have been incorporated in draft amendment no. 03 to IS 15959 (Part 2) as permitted alternate options to allow smooth transition (see Annex 7)	Committee may discuss.

Sr. No.	Item	Background	Decision of the last meetings	Action/Remarks
	Item	panel. This work is to be carried out in coordination with P1/WG 1 so that necessary incorporations may be made in IS 15959 series while drafting its amendments. Mr Bali from NSGM was requested to bring together stakeholders from HES and MDM suppliers so that all stakeholders viewpoints are taken into consideration. Mr S Warrier and Mr Balagopal informed the committee that queries had been sent to HES vendors and that based on the inputs received from HES implementation agencies, no further change was made in the recommendation of the WG. It was also decided to include the change regarding HLS security mechanism as decided under P 1/WG 3. Mr Vinoo S. Warrier, Kalkitech – Convener (P1/WG 3) and Mr Balagopal, Kalkitech	meetings	Action/Remarks
		agreed to co-ordinate with Mr Gaur to provide necessary change. Informative Annexure being prepared under P1/ WG 2 under the convenership of Mr		
		Shivakumar, CPRI (Bengaluru) shall also be included in the draft document.		

Sr. No.	Item	Background	Decision of the last meetings	Action/Remarks
3	IS 15959 (Part 3): 2017 Data Exchange for Electricity Meter Reading, Tariff and Load Control- Companion Specification- Part 3 Smart Meter (Transformer Operated kWh and kVARh, Class 0.2 S, 0.5 S and 1.0 S) (AMENDMENT NO. 01)	It was informed by the Convener of P1/WG 1, Mr Gaur that the finalized draft shall be submitted after further deliberations in P1/WG 1. It was decided to align the changes for this draft amendment in line with the changes being made in Amd. No. 03 to IS 15959 (Part 2). Mr Gaur confirmed that this amendment shall follow once Amd. No. 03 to IS 15959 (Part 2)	Mr Gaur informed that the Amd. No. 01 to IS 15959 (Part 3) would follow once Amd. No. 03 to IS 15959 (Part 2) goes into wide circulation.	Panel 1/ WG 1 may update on the status of work.
4	IS 15707: 2006 Testing, Evaluation, Installation and Maintenance of a.c. Electricity Meters— Code of Practice (REVISION) Doc ETD 13 (21557)	Shri BM Vyas, Convener of the WG 2/Panel 2 had informed the committee that 8 meetings of the WG 2/Panel 2 have been held. Mr Surendra Jhalora, M/s Enernovation submitted before the committee that no such standard exists in IEC and that this standard in its current form must also be considered for submission as a NP in IEC TC 13. The committee further agreed to submit the same draft as New Work Item Proposal (NP) to IEC TC 13 committee as no standard on this subject exists in IEC and this is a very important standard for testing, evaluation, installation and maintenance of a.c. electricity meters. Members agreed to provide comments on the draft document. It was decided that	Wide Circulate the document and if No comments received. The doc may be sent for printing with approval of Chairman. Panel 2/ WG2 yet to submit finalised draft IS 15707 (see Annex 8) incorporating the Informative Index (see Annex 9) This has reference to revision of IS 15707: 2016 and incorporation of an informative annexure regarding Whole current meter current rating. It is requested to update on the work status of the document. It is also informed that as per clause 6.1.15 of IS 12: 2005, 'the normative or informative annexes shall be placed after the main body of the standard and should be	Panel 2/ WG 2 may update on the status of work.

Sr. No.	Item	Background	Decision of the last meetings	Action/Remarks
		comments shall be resolved by Panel 2. Utilities may be added in the panel for a considered discussion. The panel recommendations shall be considered in the sectional committee for incorporation of suitable changes in the draft. Once the committee approves the draft document for wide circulation, that draft shall then be submitted as a New Work Item proposal (NP) to IEC TC 13.	current rating must be referred to somewhere in the main draft standard IS 15707. This may be taken into account while finalising	
		Additionally, CESC has submitted a proposal to include Informative, Guiding Annexure for "Selection of Proper Rating & Effective and efficient utilisation of whole current meters by the utilities" in the revised draft of IS 15707 and same has been discussed in Panel 2 meeting held on 23rd June at CPRI, Bangalore and panel has decided not to restrict the current ratings for whole current meters as it will contradict with CEA regulations.		
	<i>y</i>	No change required in Draft prepared by Panel 2.		
5	IS 12346: 1999 Testing Equipment for a.c. Electrical Energy Meters (First Revision) (REVISION) Doc ETD 13 (25722)	Mr Goyal, Convener of WG 3/Panel 2 informed the committee that several meetings of the WG have been conducted and the draft revision document is being prepared based on	Mr Kartikey Sharma, M/s Zera (on behalf of Mr Goyal) informed the committee that 28 meetings so far have been conducted and that the draft prepared shall be submitted latest by end of February, 2023.	Mr Kartikey Sharma, M/s Zera has submitted draft standard IS 12346 for comments vide email dated 27.04.2024. P-

Sr. No.	Item	Background	Decision of the last meetings	Action/Remarks
		IEC 62057. The working draft is expected to be ready in another 6 months. Mr Goyal informed the	Draft IS 12346 attached at Annex 10	draft has been circulated to members for comments for a period of 30 days i.e. up to
		committee that 23 meetings so far have been conducted and that the draft prepared shall be submitted latest by end of February.		20.06.2024
6	IS 16444 (Part 1): 2015 a.c. Static Direct Connected Watthour Smart Meter Class 1 and 2 - Specification (AMENDMENT NO. 03)	A Working Group WG 1/Panel 4 under the Convenership of Mr Rajnesh Ameta, M/s Secure Meters, was formed to draft the standard. In the last meeting of sectional committee, after detailed discussions taking into consideration: • changes being introduced in the draft revision	submitted by Mr. Rajnish Ameta (see Annex 11). The draft amendment was circulated among	Committee may discuss.

Sr. No.	Item	Background	Decision of the last meetings	Action/Remarks
		consideration of the committee.		
7	IS 16444 (Part 2): 2017 a.c. Static Transformer Operated Watthour and Var-Hour Smart Meters, Class 0.2S, 0.5S and 1.0S Part 2 - Specification Transformer Operated Smart Meters (AMENDMENT NO. 02)	The committee considered the following: • changes being introduced in the draft revision document of IS 15884, • informative annexure as a guideline for common pluggable module, and • implementation of IS 14697: 2021, the committee decided to re-draft the Amendment to accommodate all relevant changes mentioned above. The revised draft amendment shall be prepared by WG 1/Panel 4 and submitted for consideration of the committee.	shall be submitted latest by end of October 2023. Draft amendment no. 02 submitted by Mr. Rajnish Ameta (see Annex 12). The draft amendment was circulated among committee members as P-draft for 15 days. Comments from members are attached at	Committee may discuss.
8	IS 14697: 2021 a.c. Static Transformer Operated Watthour Meters (Class 0.2S And 0.5S) and Var-Hour Meters (Class 0.2S, 0.5S and 1S)- Specification (AMENDMENT NO. 02)	The proposal for inclusion of accuracy class (0.1s) in Indian standard for a.c. Static Transformer Watthour Meters, IS 14697 was agreed and approved by the committee. The committee agreed to circulate the draft as P-draft among the committee members for 30 days and if No comments received than doc may be sent for Wide Circulation with approval of Chairman. No comments were received during the P-draft circulation. Document may be sent for Wide Circulation.		•

Item 4 DRAFTS UNDER PREPARATION

Sr. No.	Title	Decisions taken in last meetings	Actions taken - reported in the agenda	Decision taken	
110.	DC Energy Meter	The committee had decided to prepare a skeleton document using IS 13779 as the reference for general requirements and combining it with the requirements given in the draft IEC standard on DC Metering. Chairman of the committee had asked Mr B M Vyas to prepare the skeleton document with help of Mr Jhalora and provide the same to BIS for further circulation as P-draft for 1 month within the committee. In the last meeting, Mr Vyas	Mr Narang Kishore and Mr B M Vyas to update the committee on progress of work. Mr Narang Kishore and Mr B M Vyas have submitted the draft standard for Static Meter for DC Energy (Class 0.5 and 1.0), see Annex 14	Committee may consider.	
1		made a brief presentation before the committee explaining the structure of the IEC standards and its difference from the structure of Indian standards on Electrical Energy metering. He explained how the Indian Standards structure is more of a 'Product Standard' based structure whereas, in IEC, different standards exist for: • General requirements such as Constructional, climatic and EMC & type tests etc.), • Safety requirements, and • Particular requirements.			
		Thus, one single draft document on DC Energy Meter is being prepared in line with other Indian Standards on Electrical Energy Metering. He explained that while drafting the skeleton document for Indian Standard on DC Energy Meter, Standard ratings,			

Sr. No.	Title	Decisions taken in last meetings	Actions taken - reported in the agenda	Decision taken
1100		Safety requirements, General and Constructional requirements and metrological requirements will be consolidated from IS 13779 and IEC 62052- 31, making changes as per India-specific conditions. He further emphasized that guidance w.r.t the following is required from relevant sectional committees such as ETD 50, ETD 51 and ETD 52: i. Standard values for voltages and current ii. Immunity requirements He was requested to give details of the information required from the above committees with Member Secretary and Mr Narang Kishore so that necessary inputs may be obtained for preparation		
2	Pluggable Communication module – Smart Meters (Informative annexure only)	of the document. Members had considered the document shared by NSGM. Mr Arun Mishra (NSGM) proposed that only Power and Data Interface may be standardized. Chairman clarified that in order to standardize the pluggable module provision, design changes would call for type testing. Shri Shailendra Goyal (M/s ZERA) had also offered to share similar documents (which are openly available and are not copyright protected) formulated by Germany as a concept document. Further, the committee noted that in one of the meetings with MoP, it was noticed that the work	Genus will prepare white	update the committee on

Sr. No.	Title	Decisions taken in last meetings	Actions taken - reported in the agenda	Decision taken
		related to standardization of 'Common Pluggable Communication Module' needs to be taken up on priority.	V	
		Given the urgency, Chairman proposed to form a working group WG 1 under Panel 4 under the convenorship of Mr Aashish Gaur, M/s Genus to draft an 'informative annexure as a guideline for common pluggable module'.		
		The draft is under preparation under WG 1/Panel 1.		
		Mr Aashish Gaur, Convenor (WG 1/Panel 1), in the last sectional committee had informed that the first meeting had been held in Dec 2021 and the work had been initiated. He informed that committee that the WG was working towards identifying the challenges and possible solutions by obtaining inputs both from the manufacturing and the HES end.		
		Mr Narang Kishore updated the committee that no inputs were received from the panel members. He was requested to continue his work w.r.t clarification for DoT policy of IPv6 for communication.		
		Mr Aashish Gaur, M/s Genus, Convener (WG 1/Panel 1) apprised the committee regarding the progress of work in the Working group in the meeting held on 09 Jan.		

Sr. No.	Title	Decisions taken in last meetings	Actions taken - reported in the agenda	Decision taken
110.		The working group was advised to work for defining a mechanical slot especially Pin out mechanical requirements. The following members were co-opted in the Working Group: i) Cynaconnode ii) Wirepas iii) Zera The committee authorized the WG convener to co-opt additional members from cellular communication providers too.	iii tiit ageitta	
3	Dual Source Meters (Informative annexure only)	Chairman suggested having informative annexure on Dual source meters would be helpful in this regard. It was decided to collect use case data for the same and draft an annexure accordingly which would be suitably incorporated in the existing Indian Standards. Mr Kishore Narang was allocated the task to prepare this informative annexure. In the last meeting, Mr Narang Kishore informed that the draft is under preparation and will share the same by year end for consideration of the committee. It was decided to circulate the draft within		Mr Rajnish Ameta to update the committee on progress of work.

Sr. No.	Title	meetings in the agenda		Decision taken
4	Group Metering	Mr Subhadip Ray Choudhury, M/s Tata Power-DDL informed that the work is yet to be initiated. He was advised to co-opt utilities like Adani, CESC, MGVCL and MPMKVVCL in the group. The utilities agreed to assist in R&D testing for simulation of use cases so that a draft document may be prepared. Mr. Brajnath Dey has communicated to the committee that meetings have taken place on this and this subject is currently in discussion. Mr Subhadip Ray Choudhury will provide an update in the next meeting.	Committee felt that group metering does not fit in the current framework of the standards and there is a need of separate standard for group metering. The following members were co-opted in the Working Group to draft standard on Group metering: 1. Mr Bajrang Agarwal 2. Mr. Kartikiya Sharma 3. Shri Saurav Chandel 4. Mr. Arvind Rai 5. Mr. Ashish Kumar Joshi 6. Mr Sandeep Teemerva	Mr Subhadip Ray Choudhury, M/s Tata Power- DDL to update the committee on progress of work.
5	Composite Metering	This subject is currently under discussion in Panel 4, and the draft will be shared soon.	The committee decided to creating an initial draft. Subsequently, a decision will be made regarding its incorporation into the existing standards or whether to draft a separate standard.	Mr Subhadip Ray Choudhury, M/s Tata Power- DDL to update the committee on progress of work.
6	ABT Meter	Panel 2 was asked to prepare a working draft and circulate among the committee members.	Mr B M Vyas (convenor Panel 2) informed that the work is yet to be initiated and will take up this in the upcoming Panel meetings.	Mr B M Vyas to update the committee on progress of work.
7	Grid regulation to be incorporated in the new IS	Panel 2 was asked to prepare a working draft and circulate among the committee members.	Mr B M Vyas (convenor Panel 2) informed that the work is yet to be initiated and will take up this in the upcoming Panel meetings.	Mr B M Vyas to update the committee on progress of work.

Item 5 COMMENTS ON PUBLISHED STANDARDS

Sr. No.	Organisation and comments received	Decision taken in last meeting	Action	
1	Panel 2 will review the additional comments (see annexure 6 of agenda) received on IS 13779: 2020 and draft Amendment to IS 13779: 2020 will be circulate among the committee members as P-draft after incorporating modification based on comments and Chairperson approval.		•	
	Additional comments have been discussed in Panel 2 meeting (dated- 03/01/2024) and P-draft will be circulated among the committee members after incorporating modifications based on comments discussed in the panel meeting.	draft amendment 01 to IS		

Item 6 COMPOSITION OF SECTIONAL COMMITTEE, ETD 13

6.1 The present composition and the status of participation of committee members in the previous three meetings of Equipment for Electrical Energy Measurement and Load Control Sectional Committee, ETD 13, is given at Annex 16.

The committee may review.

6.2 Request for co-option is received from following organisations:

- i) Mr Pradeep Gupta, M/s Socomec India Pvt Ltd (see Annex 17)
- ii) Mr G Chandrakala, M/s Telangana State Northern Power Distribution Company Limited (see Annex 18)
- iii) Mr Dheeraj Agarwal, M/s TP Western Odisha Distribution Limited (see Annex 19)
- iv) Mr Pankaj Yadav, Individual Capacity (see Annex 20)
- v) M/s ERTL (West), Mumbai

Item 7 INTERNATIONAL ACTIVITIES

7.1 India is a Participating member ('P' member) in IEC/TC 13.

It may be noted that P-Members (Participating members) have the obligation to vote at all stages and to participate and contribute in the TC meetings.

The committee may note.

Item 8 REVIEW OF INDIAN STANDARDS

The Indian Standards under the purview of ETD 13 which are due for review are attached at Annex 21.

Item 9 ANNUAL CALENDAR OF TECHNICAL COMMITTEE MEETINGS

Sectional Committee	Q1	Q2	Q3	Q4
ETD 13	11/06/2024	13/09/2024	09/12/2024	04/03/2025

Item 10 ANY OTHER BUSINESS