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MP165 'ESME Voltage Accuracy'

September 2023 Working Group – meeting summary

Attendees

Attendee	Organisation
Rachel Black (RBI)	SECAS
Ali Beard (AB)	SECAS
Elizabeth Woods (EW)	SECAS
Bradley Baker (BB)	SECAS
Ben Giblin (BG)	SECAS
Robin Seaby (RS)	DCC
Christopher Thompson (CT)	DCC
David Walsh (DW)	DCC
Tom Rothery (TR)	DCC
Patricia Massey (PM)	BEAMA
Julie Brown (JB)	British Gas
Beth Tatton (BT)	Calvin Capital
Sharon Armitage (SA)	E.ON
Ian Turner (IT)	E.ON
Amy Cox (AC)	EDF
Alex Hurcombe (AH)	EDF
Daniel Davies (DD)	ESG Global
Martin Bell (MB)	EUA
Stuart Blair (SB)	Northern Powergrid
Joey Manners (JM)	Octopus Energy
Ralph Baxter (RB)	Octopus Energy
Audrey Smith-Keary (ASK)	OVO
Mahfuzar Rahman (MRa)	Scottish Power
Jeff Studholme (JS)	Smart Meter Assets
Shuba Khatun (SK)	SSEN

Overview

The Smart Energy Code Administrator and Secretariat (SECAS) provided an overview of the issue identified, the Proposed Solution and a summary of recent activity.

Issue

- Electricity Network Parties have a statutory obligation to ensure that the voltage supplied to consumers' premises from Low Voltage electricity networks is always between defined limits.
- The Technical Specifications are silent on the voltage accuracy from Electricity Smart Metering Equipment (ESME).

Impact

- Electricity Network Parties must make conservative planning assumptions when designing and analysing performance of Low Voltage networks. This prevents them from fully realising network-based benefits from the smart meter rollout and may require potentially unnecessary network reinforcement.

Proposed Solution

- Codifying an agreed level of accuracy in the Smart Energy Code (SEC) (following consultation/discussion with Manufacturers) to allow SEC Parties to know approximately how accurate ESME Devices are.

Modification update

- Both the British Electrotechnical and Allied Manufacturers' Association (BEAMA) and the Technical Architecture and Business Architecture Sub-Committee (TABASC) have both commented that they do not support the inclusion of a minimum ESME voltage accuracy into the SEC, instead stating the Measuring Instruments Directive (MID) (EU standard) and/or Measuring Instruments Regulations (MIR) (UK standard) is more suited.
- The TABASC stated that they do not support inclusion of a minimum ESME voltage accuracy into the SEC but if the modification is to be progressed, the voltage accuracy should sit outside of the Technical Specifications and in its own subsidiary document.

Working Group Discussion

SECAS (BB) provided an overview of the issue, the intent of the modification and the proposed business requirements. (BB) also stated that Distribution Network Operators (DNOs) do not want to add further complexity to ESME, they just want to know how accurate current Device models are. The SEC Panel requested in March 2023 that this modification is progressed to decision.

Causing non-compliance

When discussing the Proposed Solution, an Other SEC Party representative (JS) stated that it could negatively impact Parties if codifying a voltage accuracy results in installed Devices being non-compliant. They reiterated their view, commenting that they had fundamental concerns regarding potential unintended consequences.

Should this be a SEC requirement?

SECAS (BB) updated the Working Group with BEAMA and TABASC feedback, where they felt that the issue is not relevant to the SEC. This was the general consensus of the Working Group, with a Large Supplier representative (JM) stating explicitly that it is not appropriate to put this requirement into the SEC. A DNO representative (SK) commented that the nature of the requirement is too technical for the SEC.

Measuring Instruments Directive and Measuring Instruments Regulations

SECAS (BB) informed the Working Group that both BEAMA and the TABASC felt that any voltage accuracy requirements should be covered within the MID and/or MIR. An Other SEC Party representative (BT) asked SECAS if it had attempted to have this requirement placed within either of these documents. (BB) responded stating that attempts had been made to, however the governance process was not clear in terms of amendments to the standards. The BEAMA Chair (PM) added that they could help identify a way forward with regards to changes to the MID/MIR.

A Working Group member (PM) also commented that they are aware of industry conversations currently taking place regarding changes to the MID/MIR to provide further voltage flexibility for demand relating to innovative technologies. This is in direct opposition to the intent of this modification.

Is this a recent or existing problem?

An Other SEC Party representative (ASK) asked if this was an existing problem (pre-dating smart metering) or a 'nice to have' solution. The Working Group Chair (AB) commented that the issue existed before the Smart Metering Rollout. An Other SEC Party representative (SB) advised that the issue relates to both Low Voltage and High Voltage networks and knowing the voltage accuracy of ESME would help DNOs identify potential faults. They also advised that consumers' home appliances are built to take 240v, but can handle up to 254v. The accuracy threshold could result in consumers' equipment being damaged. They commented that it was the same with the legacy infrastructure, but voltage measurements had been made previously during on-site testing.

Business case

A Working Group member (JS) advised that it would be beneficial to the business case if DNOs could identify where unnecessary spend has occurred to reinforce a network, due to the issue identified under MP165.

SEC Modification Process

Some of the Working Group expressed frustration that the Panel has requested that this modification is progressed through to decision. This is due to the modification not receiving support from numerous forums and not being an appropriate change to the SEC. SECAS (BB) informed the Working Group that its comments will be captured in the Modification Report regarding its reluctance for the modification progressing. A Panel member (RB) requested that MP165 returns to the Panel, for further discussion about whether it should be progressed given the amount of time and effort it will take.

Next Steps

The following actions were recorded from the meeting:

- SECAS to update the Modification Report.
- SECAS to discuss MP165 with the Panel.