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MP184 ‘Increase Smart Capability of SMETS2 Twin Element ESME to support Solar and Storage use cases’

September 2022 Working Group – meeting summary

Attendees

Attendee	Organisation
Ali Beard	SECAS
Anik Abdullah	SECAS
Kev Duddy	SECAS
Joey Manners	SECAS
Bradley Baker	SECAS
Elizabeth Woods	SECAS
Ben Giblin	SECAS
Fiona Bond	SECAS
Rainer Lischetzki	SECAS
James Hosen	SECAS
David Walsh	DCC
Tom Rothery	DCC
Chris Thompson	DCC
Mark Pitchford	DCC
Patricia Massey	BEAMA
Julie Brown	British Gas
Emma Johnson	British Gas
Beth Davey	Calvin Capital
Martin Bell	EUA
Kevin McIntyre	Geo
Alastair Cobb	Landis+Gyr
Mark Powell	Macquarie
Ralph Baxter	Octopus Energy
Audrey Smith-Keary	OVO Energy
Mafs Rahman	Scottish Power
Michael Snowden	Secure Meters
Lorna Clarke	SMDA
Tom Wooley	SMS PLC
Matt Alexander	SSE Networks
Shuba Khatun	SSE Networks
Robert Johnstone	Utilita

Attendee	Organisation
Karen Jacks	Vantage Meters
Luke Brady	Vantage Meters
Kelly Kinsman	WPD

Overview

The Smart Energy Code Administrator and Secretariat (SECAS) provided an overview of the issue identified, the solution and the updated use cases.

Issue

SMETS2 defines how a twin element ESME captures and records electricity consumption on a per element basis. A twin element ESME measures and records the energy imported and exported on the primary measurement element, whereas the secondary measuring element records imported energy but is not mandated to record active energy consumption. As such, this proposal seeks to enable twin element meters to measure the exported energy on the secondary measurement element.

Use Cases

1. By enabling the secondary element to have this same export capability as the primary element this allows a Time of Use (TOU) tariff to be applied to the house circuit as well as a TOU tariff on the other which has smart energy appliances on.
2. With export being recorded on both elements this removed the restriction of smart energy appliances being located on the same circuit.
3. The necessity for a secondary meter is removed.

Business Requirements

1. Requirement for Active Export kWh register on the secondary element.
2. Requirement for four TOU to support Active Export kWh on the secondary element.
3. Requirement for an additional load profile channel specifically for the Active Export kWh on the secondary element.
4. Requirement for an Export MPAN on the secondary element.
5. Requirement for Export data to be made available on the HAN so that IHD and PPMID manufacturers can also benefit and provide data to the consumer.

Working Group Discussion

SECAS (BG) provided an updated on the issue and the updated use cases.

SECAS (AA) queried whether the data on the In-Home Display (IHD) would be shown cumulatively or split per element. The Proposer (TW – SMS PLC) explained that this modification would match what the IHD currently shows (import and export data) and thus would be able to show export data from the secondary element. Numerous Working Group members noted there were details to work out about what existing technology was available and what would need to be developed for all the information to be displayed.

A Working Group member (ASK) asked how many MPANs this modification would require. The Proposer (TW) confirmed this change would mean an ESME would need 4 MPAN's. Another Working Group member noted this would require substantial changes, have cross-code impacts and would be an expensive alteration to current arrangements. (TW) explained there are already costs involved with the current arrangements of having two meters on site as well as this change bringing benefits to Suppliers in making it easier to offer smart tariffs.

SECAS (AA) asked if the cross-code implications had been discussed. P375 regarding sub-metering was discussed. Data fields for multiple MPAN's were also discussed and the implications of more than one import MPAN giving a read. The Working Group also queried what this change looked like from a DCC architecture and business process perspective. With the extra export MPAN they questioned if this would add an extra layer of complexion to the DCC System. A couple of Working Group members then queried what would occur if the import and export Suppliers were different and the ramifications for export.

A Working Group member (KM) noted they believed the idea of this proposal was attractive as the consumer would not need to have two IHDs. They asked an open question about adding further functionality to the IHD and whether the Device would be able to continue to operate. They also asked if any other members knew about how much more innovation could be added to the IHD without overburdening the Device.

Next Steps

The following actions were recorded from the meeting:

- SECAS will clarify the business requirements for this modification before bringing this back to the Working Group.