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Paper Reference:	TABASC_90_0106_10
Action:	For Discussion

MP184 Use Cases

1. Purpose

MP184 '[Increase Smart Capability of SMETS2 Twin Element ESME to support Solar and Storage Uses cases](#)' is currently undergoing the Refinement Process. The purpose of this paper is to seek the Technical Architecture and Business Architecture Sub-Committee's (TABASC) input on the business requirements and use cases before requesting a Preliminary Assessment from the Data Communications Company (DCC).

This paper provides the high-level business requirements and the more detailed considerations within each of these requirements. Both can be found in Appendix A.

2. Summary of MP184

This section summarises the key points of this Modification Proposal. More information is available in the Modification Report in Appendix B.

2.1 What is the issue?

Currently, the Smart Metering Equipment Technical Specification (SMETS) defines how a twin element Electricity Smart Metering Equipment (ESME) captures and records electricity consumption on a per element basis. The 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 export active energy consumption.

3. Business Requirements

Below are the Business Requirements, developed with the Proposer, the DCC and the Working Group.

Business Requirements	
Ref.	Requirement
1	Requirement for Active Export kWh on the secondary element.
2	Requirement for four Time of Use (TOU) to support Active Export kWh on the secondary element.

Business Requirements	
Ref.	Requirement
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 data to be made available on the HAN so that IHD and PPMID manufacturers can also benefit and provide data to the consumer.

Further information on the considerations and assumptions for these requirements is available in Annex A.

4. Use Cases

4.1 How would the Proposer use this Modification?

The Proposer's organisation could install a solar system and battery at the consumer's premises at no cost to the consumer. The Proposer's organisation would then enter into a Power Purchasing Agreement (PPA) with the consumer to sell them the electricity generated from the solar system behind-the-meter at a discounted rate.

In the case that the consumer defaults on the PPA, they are still able to consume electricity behind the meter. The Proposer's organisation would also find it difficult to recover the solar system.

If MP184 was approved, the Proposer would install the solar system on the secondary element, with the customer paying the agreed PPA fee for their electricity. Generation would take place behind the meter, with export being recorded across the Export MPAN which sits across the primary element. Introducing an export register on the secondary element would mean all generation would be used as export and reduce the risk to the Proposer's organisation.

4.2 How could consumers benefit from this Modification?

MP184 would allow consumers to receive payment for the exported energy if a twin element meter is on site.

If the consumer did not have a battery present at the site, the load could be connected to the primary element, with the solar system connected to the secondary element. The primary element connected to the load would register imported energy, with the consumer paying the 'full price' for all energy consumed. The secondary element would have the solar system connected to it and will only register exported energy. The consumer could be paid for the export energy, being unable to use any of the energy they have generated.

If the consumer had a battery on their site, the load could be connected to the primary element, with the solar system and battery connected to the secondary element. The primary element would only register imported energy, with the consumer paying 'full price' for their usage. The secondary element will measure net export. Should the generation exceed the battery storage then then this could be exported.

5. Questions for the TABASC

We seek the TABASC's view on the following questions to feed into the Modification Report and business requirements before we proceed with the Preliminary Assessment:

- Do the Business Requirements address the identified issue?
- Are the use cases suitable to proceed to Preliminary Assessment?
- Are there any additional considerations which should be drawn out during the Preliminary Assessment?

6. Next steps

Timetable	
Event/Action	Date
Modification discussed with TABASC	1 Jun 2023
<i>DCC Preliminary Assessment requested</i>	<i>14 Jun 2023</i>
<i>DCC Preliminary Assessment returned (expected)</i>	<i>12 Jul 2023</i>
<i>Discuss DCC Preliminary Assessment with the Working Group</i>	<i>2 Aug 2023</i>
<i>Refinement Consultation</i>	<i>9 Aug 2023 – 31 Aug 2023</i>

Italics denote planned events that could be subject to change

7. Recommendations

The TABASC is asked to:

- **CONFIRM** that the business requirements address the identified issue.
- **PROVIDE** views on the suitability of the Business Requirements to proceed to Preliminary Assessment.
- **PROVIDE** views on whether any additional context should be provided to the DCC for its Preliminary Assessment.

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24 May 2023

Attachments:

- **Appendix A:** MP184 Business Requirements
- **Appendix B:** MP184 Modification Report