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REFERENCE	RECTEP_22_0126_04
STATUS	FOR DISCUSSSION

R0010: NEW METER TYPES FOR AUXILIARY PROPORTIONAL CONTROLLERS (APCS) - SOLUTION OPTIONS

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1 PURPOSE

This document invites the TEP to comment on the proposed solution options and way forward for REC Change Proposal R0010 “New Meter Types for Auxiliary Proportional Controllers (APCs)”.

The TEP’s feedback will be used to help shape the solution options and next steps.

2 OVERVIEW OF ISSUE

Certain smart meters have Auxiliary Proportional Controllers (APCs) integrated within the meter, which facilitates the control of load on behalf of consumers. For instance, in the management of electric heating systems and the smart charging of batteries and electric vehicles. The APCs enable customers to utilise secondary electricity loads at specific times for specific purposes (e.g., overnight Electric Vehicle (EV) charging).

Information on which meters have this functionality is stored within the DCC Inventory as part of the Electricity Smart Metering Equipment (ESME) data. Information on meter type is also exchanged via the Data Transfer Network (DTN) using the Meter Type Data Item (J0483). However, the DTN Meter Type information does not give information on whether an APC is integrated within the meter, as the DTN uses a different set of meter identifier codes than those used in the DCC Inventory. There is at present, therefore, no single source which Suppliers can use to obtain both the APC data alongside all other data required when taking on a new customer, with two separate data sets needing to be consulted. Furthermore, the mis-match between the DCC Inventory meter type codes (known as the ‘ESME Variant’) and those used in the DTN flows creates a risk of validation errors. This could have a number of consequences, including:

- Failure to correctly identify APCs could result in an incorrect meter type being assigned to a supply point. This, in turn, could result in the meter not being configured correctly by the Supplier.
- It may impact on the ability of Suppliers to offer innovative tariffs

R0010 has been raised to facilitate access to the APC data via the Electricity Enquiry Service (EES), including the API. This will allow Suppliers to use a single source of information and not, unless they choose to do so, need to consult both the EES and DCC inventory.

3 SOLUTION OPTIONS

The Proposer of R0010 has put forward a solution that would add APC meter types to the Meter Type Data item (J0483). Suppliers and MEMs would then populate this field with the appropriate APC meter type when sending flows with this data item. By adding these new Meter Types to the existing list of meter types, this information will become available to EES Users in the Electricity Enquiry Service, including via the API. **This is solution Option 1.**

The Code Manager has identified an alternative approach to address the issue, namely, sourcing the data directly from the DCC Inventory. This could be achieved by adding the APC information to the D0350 (Notification of DCC Services at Metering Point) flow. DCC would then use this flow to send the information to MPAS. MPAS would then pass the information on to the EES to display, including via the API. **This is solution Option 2.**

A further solution option is to update the DTC flow Meter Type enumerations, such that all SMETS2 meter type enumerations are aligned with the DCC Inventory meter type enumerations. (Note, only SMETS2 meters have the potential for APC functionality, hence, why this option would only amend the SMETS2 meter type enumerations). This option would ensure that there is consistency between the DTC and DCC Inventory enumerations. **This is solution Option 3.**

A full analysis of the solution options is provided as Attachment 1. The following table provides a high-level summary of the pros and cons of the two options.

Option 1: New Meter Types added to the Meter Type Data item (J0483)	Option 2: DDC passing the ESME variant data to MPAS/ESS	Option 3: Replace DTN Flow Enumerations with DCC ESME Variant
Pros: • Simpler to implement from a central systems perspective, than option 2. • Subject to impact assessment by service providers, this solution is anticipated to have the lowest implementation cost from a central body perspective than Option 2. • Subject to impact assessment by service providers, this solution is anticipated to have lower implementation timescales, than option 2. • It is the lowest cost option for the proposer of R0010 and, subject to confirmation by impact assessment, potentially for other Market Participants too.	Pros: • This solution would ensure that there is only a single master version of the ESME variant data (i.e. the DCC Inventory data) which is available to Suppliers at the start of the sales journey via the EES.	Pros: • This option would fully align the DTN Meter Type enumerations with the DCC Inventory. Removing this mis-match in enumerations will reduce the risk of validation issues which could result in incorrect meter data giving rise to billing and settlement problems. • As the old Meter Type enumerations would be removed, there would not be a risk of these incorrectly continuing to be utilised by parties (as would be a risk under option 1). • Simpler to implement from a central systems perspective than option 2. • Subject to impact assessment by service providers, this solution is anticipated to have the lowest implementation cost from a central body perspective, than option 2. • Subject to impact assessment by service providers, this solution is anticipated to have lower implementation timescales, than option 2.

Cons • The same industry information will be flowing through two differing routes, creating a risk of divergence, with the J item having no link to what would be considered to be the data item master in the DCC inventory. If the information gets lost and the meter operator changes the Meter Type, then it could result in the customer's meter being incorrectly configured. • The existing S2 Meter Type enumerations would not be removed from the valid set, creating a risk that these could continue to be used by parties, rather than the new APC enumerations. Subject to impact assessment, this proposal is potentially a higher cost option for industry parties to implement than Option 2.	Cons • The implementation cost from a central body perspective is anticipated to be higher than that of options 1 and 3 (subject to confirmation during the impact assessment phase). • The misalignment between DCC ESME variant and Meter Type will still exist under this option. Meter Type is a mandatory data item for flows and so must be populated but none of current values would provide exact match with data on DCC inventory. This mis-match could create validation issues, resulting in incorrect meter data giving rise to billing and settlement problems. • It is anticipated that this option would have the longest implementation timescales (subject to impact assessment) •	Cons • The same industry information will be flowing through two differing routes, creating a risk of divergence, with the J item having no link to what would be considered to be the data item master in the DCC inventory. If the information gets lost and the meter operator changes the Meter Type, then it could result in the customer's meter being incorrectly configured. • Subject to impact assessment, this proposal is potentially a higher cost option for industry parties to implement than Options 1 and 2.

4 PROPOSED NEXT STEPS

The Code Manager believes that all proposed solution options have merit, however, Option 3 presents a relatively simple and quick option to address the issue raised, with less cons than options 1 and 2. Having said this, it is noted that the proposer did not put forward this solution when raising the CP as it would have higher implementation costs from a party perspective.

As such the Code Manager believes that Option 3 should be progressed as the preferred option, but that additional information should be sought from Market Participants before it is determined whether Options 1 and 2 should not be taken forward.

The more complex nature of Option 2 means that a full impact assessment would take longer to complete. To avoid delaying the progress of the CP, the Code Manager proposes to only undertake a full impact assessment on this option if there is industry support for doing so. Therefore, it is proposed that as a next step, the following approach be taken:

- **Options 1 and 3:** conduct a full impact assessment, including Party impacts and REC Service Provider impacts
- **Option 2**: Seek industry feedback on whether they would support Option 2 being further progressed.

If there is support for Option 2, then a full impact assessment will subsequently be undertaken. If not, then only Options 1 and 3 will be progressed, utilising the impact assessments to steer the direction taken.

5 TEP VIEWS

The TEP is invited to comment on the issue, the proposed solutions and the Code Manager's planned way forward. In particular:

- Can the TEP see any additional pros; cons; issues or other relevant points that have not been documented in Attachment 1?
- Does the TEP have a view on which option it believes offers the best approach?
- Does the TEP support the proposed next steps?
- As the responsible committee for data specification changes, is there any specific information that the TEP would like to see to help it make an informed decision at the point when it is invited to vote on this Change Proposal?

6 COMMITTEE ACTIONS

Committee Members are invited to:

- **NOTE** the contents of the paper; and
- **COMMENT** on the contents of this paper and its attachment.

7 LIST OF ATTACHMENTS

- RECTEP_22_0126_04 - Attachment 1 - R0010 Solution Analysis