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DP152

‘Consumption on Smart Polyphase Electricity Meters’

Modification Report

Version 0.1

29 January 2021



About this document

This document is a draft Modification Report. It currently sets out the background, issue, and progression timetable for this modification. This document will be updated as this modification progresses.

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1. Summary

This proposal has been raised by Carl Skeritt from Drax Group PLC.

Data Communications Company (DCC) Users are currently unable to interrogate polyphase metering equipment and get information from consumption at each phase. This limits the information, understanding and engagement of consumers with their energy consumption.

Being able to read consumption from each phase would mean Consumers would benefit from being able to obtain more granular data on their usage behaviours. In addition, this information would allow Suppliers the opportunity of offering smart tariffs to consumers if desired, as a result being able to obtain individual phase data.

2. Issue

What are the current arrangements?

Polyphase meters are electrical meters used for measuring 3 phase electricity supply. Polyphase meters are sometimes used in scenarios where each phase is used for a specific purpose e.g. for heating and/or Electric Vehicle (EV) charging. Similar to Twin Element meters; which can already provide separate phase consumption data, having the ability apply a tariff to each phase and with per phase consumption provides innovative propositions which allow the customer to be billed at different rates for each purpose could be supported.

Currently smart polyphase meters only provide profile consumption data as a combined value across the three phases. Therefore, the tariffs offered to those consumers who have polyphase metering equipment is applied to the cumulative consumption of all three phases combined, rather than individual phase data.

What is the issue?

Although, it is understood that the electricity meter itself supports the measurement of each phase, the Smart Energy Code (SEC) and DCC systems do not currently support functionality that would allow the individual phase data to be retrieved.

The current arrangements severely limit the opportunity to provide support to consumers around their energy efficiency choices, by providing the consumption figures at a more granular level.

Smart polyphase metering equipment already collects consumption information for each individual phase, however, the DCC User cannot extract this information of each phase.

What is the impact this is having?

This lack of individual phase data limits the ability of Suppliers to innovate and develop products such as smarter tariffs that enable the customer to take greater benefit from smart meters.

Impact on consumers

Smart metering enables consumers to be more engaged in their energy consumption by informing them of their consumption behaviours, whilst encouraging them take action to support greater energy efficiency and cost saving. With the increase in EV charging and electrification of heating, polyphase

meters will become more prevalent in both non-domestic and domestic properties. In the specific application of supporting EV charging and heating, it is likely the meters will be used to charge separately for individual appliance consumption and understand consumption patterns to allow cost efficiency and energy efficiency savings. Therefore, by not having the ability for the consumer to understand the consumption by each individual phase, or be charged by each phase, limits the ability for the consumer to be informed, engaged and active in taking energy efficiency measures.

The Proposer also believes the impact of not making this change is that there would be missed opportunities for Suppliers and other Parties to innovate around smart offerings/tariffs if desired.

Appendix 1: Progression timetable

This Modification was raised on 29 January 2021 and was verbally presented to the Change Sub-Committee (CSC) on 26 January 2021. This will be taken for further discussion at the CSC on 23 February 2021.

Timetable	
Event/Action	Date
Draft Proposal raised	29 Jan 2021
Presented to CSC for initial comment	26 Jan 2021
Presented to CSC for final comment and recommendations	23 Feb 2021

Appendix 2: Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	Full term
CSC	Change Sub-Committee
DCC	Data Communications Company
EV	Electric Vehicles
SEC	Smart Energy Code