

Sent by email to smartmetering@beis.gov.uk

APC Consultation

Smart Metering Implementation Programme

Department for Business, Energy & Industrial Strategy,

2nd floor, Spur,

1 Victoria Street,

London SW1H 0ET

22 November 2019

Dear Sir/Madam,

Gemserv welcomes the opportunity to respond to this consultation on the draft technical specifications proposed to support the implementation of Smart Metering System Proportional Load Control Functionality. We are an expert provider of professional services in a world driven by data and technology. Our response draws heavily from our unique insights and experience gained from delivering technical governance services to support the Smart Energy Code.

We recognise the potential benefits of the proposed developments to existing load control functionality and support the policy intent on the basis that the proposal is focussed on making Smart metering better suited to providing more precise variable load-control, rather than using regulation to mandate a specific approach to achieve broad policy objectives.

However, we would like to highlight that the proposed approach does not seem to provide the Load Controller with visibility of the status of devices 'behind the meter' (e.g. an electric vehicle charging point) or, critically, any control algorithm embedded within such devices, along with any features which are programmable by consumers.

Furthermore, we consider that the incorporation of the proposed functionality into Devices should remain discretionary until evidence becomes available to demonstrate whether up-take is likely to be significant. We encourage BEIS to monitor market penetration of the proposed functionality, with focus on whether any interoperability issues arise which would require incorporation of the proposed functionality into Devices to become mandatory in order to support market-wide developments.

We confirm that the changes proposed in the Great Britain Companion Specification (GBCS) are an accurate reflection of the policy intent set out in the September consultation. However, our analysis has highlighted two issues which could result in a level of operational complexity which may have a detrimental impact on Users, along with a further three points relating to the detailed drafting of the changes.

Our most significant concern relates to the decision to allocate the Standalone Auxiliary Proportional Controller (SAPC) to the existing Electricity Smart Metering Equipment (ESME) Device Type. Whilst this approach may be appropriate when the APC is incorporated into an ESME, it does not seem to work well when applied to the SAPC



because it will not be clear to DCC Users whether they are communicating with an ESME or a SAPC, making it unclear what Device behaviours or responses they should expect.

Our other major concern is the large number of functions marked as 'optional' within the SAPC specification and in GBCS Table 20. This makes it unclear which specific GBCS Use Cases each SAPC can support. Whilst the DCC User which originally installed the SAPC Device will have a clear understanding of what functions the Device can perform and how it should be used, there doesn't seem to be a way for a gaining Import Supplier to know this following a Change of Supplier (CoS) event.

We consider that it would be clearer to DCC Users if the SAPC were to be allocated its own Device Type in the same way that other Devices which comprise the Home Area Network (HAN) currently are. This would make it clear whether DCC Users are communicating with an ESME or a SAPC and would significantly reduce the ambiguity around functions associated with each Device.

The User installing the SAPC and adding it to the Smart Metering System could be the Supplier, the Network Operator or the Load Controller. In addition to the User which completed the installation, all other Users wishing to communicate with the SAPC will need to understand the functionality provided by the SAPC. This will be difficult to achieve in a multi-party environment where the SAPC shares the Device Type with the ESME and supports 'optional' functionality.

Assigning a dedicated SAPC Device Type, along with mandating the functionality of the SAPC would clarify what SAPC functions Users are expected to support in order to establish the interoperability of SAPC Devices at installation, and preserve it following a CoS event.

Allocating the SAPC to its own unique Device Type would trigger changes to other documents, namely:

- The GBCS v4.0 would need to be amended to reflect the inclusion of the dedicated SAPC Device Type. Whilst we regard this as a medium sized change which would facilitate changes in other documents to make the functionality and behaviours provided by the SAPC clear to gaining Import Suppliers, we acknowledge that establishing a new Device Type in DCC Systems would increase the complexity of the technical changes required to the DCC Systems, and the Data Service Provider Systems in particular.
- The DCC User Interface Specification (DUIS) would also need amending to reflect which Service Request Variants are valid for use with the SAPC Device. This would also help to reduce ambiguity and support the smooth transfer of functionality upon CoS.

For existing Devices most of the functionality is mandated and well described in the GBCS and other Technical Specifications. We suggest adopting a similar approach for the SAPC, along with mandating which Use Cases apply to the SAPC Device Type in the GBCS v4.0. We consider this to represent a document only change which would clarify the operational arrangements DCC Users should expect to be associated with the SAPC Device in order to preserve interoperability on CoS.

We recognise that the alternative approach we are proposing is likely to increase the scope and complexity of the changes required to both the SEC Technical Specifications and DCC Systems, and therefore recommend that the



potential impact on DCC Users' operational activities associated with BEIS' current proposed approach is assessed and considered against any costs associated with implementing the SAPC as a new Device Type.

In addition to this, we would like to highlight the following points:

- It is not clear from the draft text how the Prepayment Payment Mode would work in relation to the SAPC. The support of prepayment and billing requirements have been included for the SAPC in the GBCS. Whilst this is not formally excluded in the SMETS2 v5.0, we did not anticipate the SAPC being required to handle prepayment and billing information when reviewing the draft version of the SMETS2 v5.0 document provided as part of the September consultation. We consider that this makes it unclear how a meter in Prepayment mode and a SAPC will interact. We request further clarification on this point.
- In relation to an ECS 200 Operational update as set out in Table 7.2.9.1d (line 1342), the 'value' field data content and structure is not specified, which could result in gaining Import Suppliers not knowing what information they should expect to receive. We also consider that it would be advisable to state the maximum length of the concatenation in the Use Case to clearly distinguish between the DLMS/COSEM utf8-string used for this Alert and the definition of the DLMS/COSEM utf8-string in section 7.2.9.2 where the use of GBT is possible for longer files.
- In section 7.2.9.2 Line 1364 there is no definition of the format and content of the 'other-data' element and Table 20 contains as only information 'stateAndAssociatedInformation', which could make it difficult for DCC Users to understand what it is and how it should be used. This may lead to interoperability issues following a CoS event or when firmware updates to the SAPC changes the format or adds/deletes data items from the 'other-data' field.

Please contact me if you would like to discuss any of the points raised in this response in more detail.

Yours sincerely,

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