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27 July 2018

Duncan Stone
Department of Business, Energy and Industrial Strategy
1 Victoria Street
London
SW1H 0ET

Dear Duncan,

DCC APPLICATION TO THE SECRETARY OF STATE TO RECONSIDER THE DETERMINATION OF IMPLEMENTATION MILESTONE 1B OF THE R2.0 BASELINE MARGIN PROJECT PERFORMANCE SCHEME

On 13 July 2018, the SEC Panel made a determination of the dates on which DCC met two milestones associated with the Baseline Margin Project Performance Scheme (BMPPS) that has been established for DCC's delivery of Release 2.0 (R2.0).

This determination was made for the two milestones relating to 'Project Activity 1' for R2.0. Specifically, these are:

- **Project Activity 1A** which constitutes 'all the activities undertaken by the DCC in order to provide a User Integration Testing facility for the DCC Systems functionality relating to upgraded SBCH, including by making available upgraded test SBCH as part of that facility for use in the North Region'; and
- **Project Activity 1B** which constitutes 'all the activities undertaken by the DCC in order to provide a User Integration Testing facility for the DCC Systems functionality relating to upgraded SBCH, including by making available upgraded test SBCH as part of that facility for use in the Central Region and South Region'.

DCC made test environments available to Testing Participants on 21 May 2018, and Testing Participants commenced testing within a week of this date. However, the dates on which Panel determined that DCC met both milestones 1A and 1B was 19 June 2018. This decision was based on evidence and considerations provided to the SEC Panel by two of its sub-committees; the Testing Advisory Group (TAG), and the Operations Group.

DCC disputes the 19 June 2018 date proposed by the TAG and accepted by the SEC Panel. It is DCC's view that the rationale that informed their recommended date is flawed because it is based on the idea that the introduction of code into the testing environment, which is inaccessible to those undertaking testing, constitutes a material change to that testing environment that invalidates earlier testing.

DCC's delivery programme over the next few years is predicated on this functionality and we consider that this decision sets a policy precedent which has the potential impact of requiring DCC to extend its delivery plans or enhance its environment provision. This would have a significant and detrimental effect on the cost and timetable of the smart meter roll-out and associated programmes.

DCC acknowledges that some issues were experienced in the North region environment after the 21 May which impacted on the ability of customers to test effectively and therefore is not requesting a reconsideration of the 1A Milestone date. However, no such issues were experienced in respect of the Central and South regions

The Direction which established the BMPPS provides an appeal mechanism through which DCC may apply to the Secretary of State to make a fresh determination.

This letter constitutes DCC's formal application to the Secretary of State to make a fresh determination of the date that Milestone 1B was met in accordance with paragraph 4.20(a) of the Baseline Margin Project Performance Adjustment Scheme for R2.0.

To facilitate consideration of this application, I have set out at Annex A, the rationale on which DCC has based its application. However, DCC is ready to provide any further information that the Secretary of State requires.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Julian Rudd', written in a cursive style.

Julian Rudd
Interim Director of Regulatory Affairs, Smart DCC Ltd

Rationale for DCC's application to the Secretary of State regarding Baseline Margin Project Performance Scheme Milestone 1B

As indicated in the covering letter, DCC is concerned by what it regards to be a flawed decision by the SEC Panel, the implications of which could be to impact upon the timelines and costs of future DCC programmes. DCC's rationale for this application is based on the following points:

The determination sets a policy precedent that prohibits DCC's ability to deliver in accordance with its Licence

The rationale underlying TAG's decision on the recommended milestone date relies heavily on DCC's addition of SMETS1 code into the testing environment. TAG noted in its conclusions that it *"...was of the view that the UIT entry criteria was not fully met until the 19th June 2018, as this was when switched off SMETS1 Code was added to the UIT-B Release 2.0 code uplift"*.

The addition of this code into the testing environment is consistent with DCC's recently implemented technical capability to add code into an environment whilst allowing it to be wholly inactive, and inaccessible to Testing Participants. In essence, TAG seems to be suggesting that the introduction of inactive and inaccessible code into a test environment invalidates any previous testing undertaken. In DCC's view, this opinion is flawed and has the effect of undermining this whole approach.

This functionality, referred to as the 'Delivery Train' approach, or 'toggling', allows the DCC to introduce new features safely and in parallel with existing programme functionality without compromising the integrity of the release. Two key principles underwrite this approach:

1. New features are included as additions to the existing functionality and protected behind a service switch. If the switch is set to "off" only the original code will be executed. When the switch is set to "on" the extended code for new feature will be executed;
2. The values for the service switches (either "on", or "off") are located and managed in a separate secure data store. This means the actual code doesn't change in order to turn a switch on

DCC has shared with stakeholders, including the SEC Panel, examples of where it will use this functionality as part of its delivery plans, including the implementation of the first DCC system-impacting SEC Modification (SECMP0008).¹ This modification is an extension to the existing Anomaly Detection Threshold process which includes extra code to generate an alert which is returned to the User when their Service Request exceeds the ADT limits and is quarantined. This additional code is implemented in R2.0 and controlled by an associated service switch. The processing for ADT then follows the following route:

1. R2.0 code will check if the Service Request is above the allowed ADT limit
2. If it is the SR will be quarantined as normal
3. The User and DCC will be informed using the existing R2.0 logic
4. At the end of the standard process the SECMOD8 service switch will be checked to see if additional processing is required:
 - a. If the switch is off, the standard R2.0 processing continues
 - b. If the switch is on, the new code to generate and send the alert to the Service User will be executed. Afterwards the standard R2.0 processing continues.

¹ <https://smartenergycodecompany.co.uk/download/5685/>

During development of SECMP0008 the new code can be included without impacting any of the existing R2.0 SIT/UIT testing when the service switch is set to “off” as R2.0 tests cannot accidentally execute any of the new code. Once the SECMP0008 code has been successfully validated in the DSP development/PIT environments the service switch can be turned on and regression tested.

DCC notes that SECMP0008, and other parallel changes will not be turned on in UIT-B but will be deployed directly from SIT-B to UIT-A, and then turned on as part of the R2.0 transition to Production. This avoids impacting any customers and their regression testing in UIT-B.

DCC considers that the TAG advice forms the basis of a policy regarding the management of code in DCC testing environments which undermines DCC’s proposed approach to toggling, and that this policy poses a material risk to DCC’s ability to deliver in accordance with its current plans. The alternatives to this approach include:

- the procurement of new test environments, which DCC considers to be an unnecessary cost that would be borne by DCC Users and ultimately energy consumers; and/or
- extending timelines to ensure that imminent code delivery into the testing environments is complete before any process of testing is conducted.

It is DCC’s view that these alternatives are inconsistent with DCC’s First Enduring General Licence Objective to deliver in a manner which is most likely to ensure the efficient and economic provision of services under the SEC, given the existence of the ‘toggling’ capability, which we understood to have been widely welcomed.

DCC notes that the TAG’s Terms of Reference explicitly state that the role of the group does not include agreeing policy.²

DCC notes also that the decision made by TAG in relation to the introduction of code for SMETS1, and the impact this has on the validity of previous testing, is inconsistent with the code deployment principles set out in the Licence Condition 13 plan accepted by the Secretary of State for the delivery of Release 2.0.

DCC’s conclusion document and submission of its final Licence Condition 13 Plan for delivery of R2.0 articulated the critical importance of a holistic planning approach. As follows:

2018 will be a year of significant activity for DCC and it is imperative that DCC manages change effectively during this period. DCC has been working with BEIS and the SEC Panel to explore options to ensure holistic planning of these activities to ensure that R2.0 is successfully delivered alongside its other principal activity in 2018. This includes the provision of a new SMETS1 Service as well as managing change requests made as part of industry-raised proposals to modify the SEC. DCC has produced, and shared in a number of forums, an integrated plan of its activities for 2018.

DCC also stressed its reliance on functionality that would enable code to exist in the same code base, making clear that there would be other programmes aside from R2.0 using the same testing environments.

In order to manage these activities and any contention between our environments, DCC has implemented an approach to DSP system development whereby features from multiple programmes can co-exist in the same code base. These features can be enabled through feature switches, which are managed by software configuration.

² <https://smartenergycodecompany.co.uk/download/6339/>

During the timeframe of R2.0 there will be a number of other programmes using the SIT and UIT environments. Our cross-programme scheduling takes this into account. DCC are working to ensure the cut-over period for environments is minimised to reduce downtime in testing.

The final Licence Condition 13 Plan for delivery of R2.0 was approved by the Secretary of State.

The advice from TAG fails to adequately reflect that active Testing Participants had been successfully executing tests from 21 May 2018

The decision made by TAG, and accepted by the SEC Panel, is based on the premise that the testing undertaken by Testing Participants between 21 May and 19 June was of limited, if any, value. The TAG document to Panel states that “any testing undertaken before the SMETS1 code was deployed, was not a true reflection of what will go live and could affect the validity of Supplier regression testing undertaken before the SMETS1 code was applied.”

Whilst some Testing Participants may weigh the risks of testing against R2.0 code, when further SMETS1 code (albeit inactive and inaccessible) is due to be inserted, and make the decision to delay their testing accordingly, others do not share this assessment of risk and have proceeded to test.

When SBCH UIT opened on 21 May 2018, two Testing Participants commenced testing in the first week, with others starting testing in the following weeks and before the 19 June date.

Whilst all Testing Participants in UIT are free to undertake testing in the sequence and manner that they prefer, at the time of writing, DCC understands that at least one of those Testing Participants is not planning to re-run testing regardless of the addition of SMETS1 code on 19 June. It is DCC's view that this invalidates the TAG's rationale for setting the Milestone date as 19 June.

The process for making this determination fails to adequately address the conflict of interest faced by decision makers

It is DCC's view that there is an inherent conflict of interest faced by those making decisions in relation to DCC's BMPPS Milestones that should result in a revised, and genuinely independent process for considering milestone dates. Currently, decision makers considering these Milestones work for organisations which stand to benefit financially (through reduced DCC charges) from milestone dates which are later than DCC proposes.

DCC will be monitoring the impact of the introduction of an independent auditor for future milestone dates, including those that would otherwise require DCC to self-certify. DCC fully supports this independent audit, and hopes that this will bring further objectivity to the process of determination.