**Draft Terms of Reference for a cost benchmarking study for SEC Modification delivery**

1) The study is commissioned by DCC and sponsored by the SEC Panel

2) DCC will procure an independent organisation from its existing framework to ensure economic and efficient service provider costs and will validate where they source the data for the benchmarking exercise.

3) The scope of the study and its findings will be shared with FSPs and DCC Customers, in addition to the SEC Panel and BEIS

4) The objective of the study is to identify improvements to the end to end DCC change process for the investigation and implementation of SEC Modifications and BEIS-directed changes and benchmark the delivery costs and optimal timescales against industry standards with the same level of complexity, scale and impact to the public.

5) The report will
   a) Review the end to end DCC change process and identify opportunities to achieve appropriate response times and to improve speed and cost-effectiveness of the changes.
   b) Establish categories of each SEC Modifications and BEIS-directed changes, with consideration of the impact on the technical architecture to define each change (e.g. 'T-shirt' sized as High, Medium, Low complexity)
   c) Assess the level of risk associated with each type of change to determine the appropriate level/type of testing to be applied for the changes benchmarked against industry standards with the same level of complexity, scale and impact to the public.
   d) For each category of change, benchmark the resource mix and the amount of time required from each service provider, looking at the overall cycle time of the change as well as time taken by each individual resource type. NB: Our FSPs' rate-card for type and level of resource are pre-defined contractually, so the insight will focus on time and resource mix required for each type of change.
   e) Will identify opportunity for an expedited change process for critical change, such as responses to security issues that require more urgent resolution
   f) Benchmark the level and type of testing and regression testing (including the level of automation) appropriate for each SEC Modification/BEIS-directed change category, and the resulting resource mix and testing time per resource type required. Identify testing efficiency opportunities. The review of testing will take into account the output of separate studies commissioned by DCC for Systems Integration Testing (SIT) and Performance Benchmarking of Test and Defect Fixes.
   g) This benchmark will take consideration of economies of scale when several changes are delivered concomitantly

6) The full end-to-end DCC change cost information will be broken down between
   a) Investigation (Preliminary Assessment and Impact Assessment)
   b) Development
   c) System testing and integration testing
   d) User testing
   e) Implementation

7) Example of types of SEC Modifications/BEIS-directed change (for illustration – not exhaustive – to include changes that were candidates for the June 2019 release) recognising the impact of DCC customers.

a) A change to an access control for an existing User type not affecting User or Consumer systems
b) A new DUIS service only affecting the DSP and User systems
c) A new Service Request without change to GBCS
d) A new Service Request requiring revisions to GBCS
e) A hardware change to the Communications Hub
f) Security fixes and emergency patching for vulnerabilities

8) The contracted company will interview
   a) SEC Panel chair, SEC Panel representatives, Testing Advisory Group, DCC personnel, TABASC chair, BEIS representatives and SECAS team personnel.
   b) DCC Service Providers: CGI, Arqiva, Telefonica, BT Security, Critical Software and key sub-contractors including Comms Hub vendors.
   c) Other system developers for insight and benchmarking
   d) DCC customers, especially on the level of testing required for each change category, and the cost of changes in current SMETS1 platforms and Smart Meter System Operators.
   e) The report should be delivered within 6 to 12 weeks of contract award date, with an interim progress report with initial findings at mid-point.