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Smart Energy Code

SEC End of Regulatory Year Report 2019 - 2020

Version 0.1

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1. Introduction

This End of Regulatory Year Report provides highlights of activities undertaken by the SEC Panel in delivering the operation of the Smart Energy Code (SEC) supported by the Smart Energy Code Administration Service (SECAS) team. This report is separated into the key functional areas covering the SECAS services of Technical Operations, Change Management, Security and Privacy, Party Support and Committee Support. Section 7 also provides an overview of the Alternative Home Area Network (Alt HAN) due to the inclusion of Alt HAN arrangements and objectives within the SEC.

The Panel is also required, as part of the Report, to set out its evaluation of whether the SEC continues to meet the SEC Objectives. These views can be found in section 8.

2. Summary

This report covers the period 1 April 2019 to 31 March 2020, which has seen further development of the SEC arrangements and the take-up of Data Communication Company (DCC) services by industry. The SEC Panel continues to monitor the challenges and issues that have arisen as Parties adapt to increased utilisation of the DCC systems, through its various Sub-Committees and SECAS. It is the Panel's view that the SEC continues to meet the SEC Objectives.

Technical Operations headlines

The Technical Operations sub-committees of Technical Architecture and Business Architecture Sub-Committee (TABASC), Operations Group (OPSG) and Testing Advisory Group (TAG) have had an exceptionally busy year. Their activities have included the testing and assessment of Live Services Criteria to inform go-live decisions associated with the enrolment of SMETS1 devices on the DCC system; operational support and issue resolution given the increased volume of SMETS2 installations; and assessment of modifications that have the potential to impact the technical and business architectures. Reviews to identify improvements in the metrics used to measure DCC services, and to assess the effectiveness of the Technical and Business Architectures and HAN requirements have also been carried out.

Modifications and Releases headlines

Increased experience of the systems and SEC has led to a significant rise in the number of change modifications being raised: 52 new modifications were raised in year, up from 23 in the prior year. The new Development Stage has seen more work being done with Proposers and industry, to ensure the 'issue' is properly understood and defined, before solution design begins. Change implementation has been enhanced with the introduction of a new SEC Release policy, and the SEC Panel assuming oversight of system impacting changes. Three scheduled SEC Releases were delivered, including the first SEC Systems Release containing DCC System changes, collectively implementing 18 modifications.

Security and Privacy headlines

Security Assessment volumes have also peaked this year, with 95 fieldwork assessments carried out (compared to 59 last year), and a further 18 self-assessments reviewed. Commercial Product Assurance (CPA) responsibilities transitioned from the Department for Business, Energy and Industrial Strategy (BEIS) to the Security Sub-Committee (SSC) this year, and four well attended engagement events were held with the National Cyber Security Centre (NCSC) and Suppliers. The SSC has overseen the removal of the first Devices with expired CPA Certificates from the Certified

Product List (CPL). Version 2.7 of the Privacy Controls Framework (PCF) was published, introducing new consent authentication methodologies allowing consent to be shared between contracted parties. And, as part of its Annual Security Obligations, the SSC carried out several projects, including one focussed on the Mitigation of Risks of Internet Connected Devices, and a Security Incident Management exercise. The Security Architecture Documentation was also updated for SMETS1, and the 8th Iteration of the SSC End-to-End Risk Assessment has commenced. We are also in the middle of a procurement to tender for the services of the User Competent Independent Organisation (CIO).

Party Support headlines

We have continued to support Parties through a variety of channels. The newsletter has proven popular, so we've doubled its frequency. We've also introduced Small Supplier Engagement calls to communicate relevant updates from SEC Panel meetings and facilitate direct engagement with Panel Representatives. 75 Parties have attended one of our five tailored Engagement Events, receiving positive feedback.

As part of our Digitalisation strategy, we launched CodeWorks, a digital version of the SEC, allowing Parties to more easily engage with information relevant to them. Over 320 SEC Parties have so far registered. And the website has been updated with new features and content to enhance user experience. Content has been simplified by using Plain English, and processes have been digitised.

21 SEC Parties have acceded to the SEC this year, and a further 60 have been guided through the User Entry Process. But we've also seen an increasing number of Parties enter into Event of Default; most cases for failing to pay DCC charges or having ceased trading. Supplier of Last Resort (SoLR) events have also increased, and in order to drive improvements to process, we've hosted several industry workshops with key stakeholders to ensure detailed process maps have been drawn up, interactions between Ofgem, the DCC and SEC Panel clearly outlined, and gaps closed.

Committee Support headlines

The SEC Panel and its Sub-Committees have hosted over 160 meetings this year, compared to 120 last year. The increase has been driven by the need to facilitate key decision points for the DCC, the identification of high-profile operational issues, the transition of CPA responsibilities to SSC, and extraordinary meetings to support recommendations to BEIS on the migration of SMETS1 Device Model Combinations (DMCs). And the amount of activity generated by these forums has risen exponentially, with over 1250 actions captured, a 52% rise on the previous year.

We've been encouraging greater participation at the Sub-Committee meetings, successfully recruiting more Small Suppliers to fill vacant positions. And we've transitioned well to running fully remote meetings, since the pandemic outbreak.

Looking Forward

The Panel continues to horizon scan, monitoring areas that impact the SEC, and keeping abreast of changing market conditions. From a SEC perspective, the significant increase in DCC operations resulting from mass rollout of SMETS2 meters and enrolment of SMETS1 Devices, continues to create challenges and opportunities for the Panel and its Sub-Committees. The workload of the Technical Sub-Committees is expected to remain high, given the anticipated level of change and decision-making required, and requirement to review the outputs of the DCC. The rate of Change Modification Proposals is not expected to die down. And the Security Sub-Committees will need to continue to stay abreast of emerging threats, mitigating risks to protect the integrity of the system.

SEC Parties are continuing to face challenges, with Event of Default and SoLR cases rising. Headcount reductions faced by Energy Suppliers is also putting pressure on regulatory resources. The impact of these challenges is an expectation of greater support being provided by the SECAS Service, and a greater impetus to drive the digitalisation strategy forward.

The market, as a whole, is experiencing change with the introduction of price caps, the Retail Energy Code and Ofgem's Code Governance review. And several wider industry developments such as electric vehicles, smart homes and connected devices, and the move to 5G, all need to be monitored in terms of their impacts to the SEC. Whilst some areas can be controlled by the SEC, several external factors continue to drive the agenda and cost.

Whilst supporting the Panel in its management of the SEC, SECAS will continue to follow the principles below.



Market Focussed - to enable efficient and effective smart arrangements



Empowering - to enable SEC Parties and interested organisations to participate on a level playing field



Proportionate - to balance all risks and benefits identified for the arrangements



Proactive - to facilitate innovation and adaptation to change



Transparent - to provide confidence in the process, its rationale and outcomes



Independent - to neither favour, nor frustrate any single Party or body of Parties



Accountable - to serve the arrangements, is to be answerable to the arrangements

The following sections provide more detail on the activities overseen by the SEC Panel and its Sub-Committees during the last regulatory year 2019-20.

3. Technical Operations

3.1 TABASC

The TABASC continued to provide input and support to the discussions regarding both the current and future state of the smart metering ecosystem. It captured viewpoints from technical experts across the Party categories, as to the impact of proposed changes, and has been active in providing these views to both the SEC Panel and BEIS transitional governance forums, both of whom see TABASC as a key industrial forum where technical and architectural matters can be discussed and clarified.

A key focus area for TABASC has been providing input into the DCC's proposals regarding Evolution of the Ecosystem and Communication Hubs (CH), to deal with the retirement of the 2G/3G network. Another area has been to evaluate the outputs of Ofgem and Elexon given the proposed changes to the Balancing and Settlement Code (BSC). In particular, the TABASC has considered the impact of Market Wide Half Hourly Settlement (MWHHS) and Meter Splitting (P379) on the smart metering technical infrastructure.

The TABASC has continued to provide support and advice in respect to Modification Proposals that affect the Technical Specifications, or the Technical and Business Architecture. Specifically, the TABASC has provided support with timescales and scoping for each release.

The TABASC has also kept abreast of several industry developments that are impacting, or have the potential to impact, the Technical and Business architectures. This has included the following:

- **Next Generation CH and Networks** – reviewing the options presented by the DCC to deal with the retirement of the 2G/3G network.
- **DSP Sandpit for Network Evolution** – understanding the business case/ proposed benefits of a new Data Service Provider (DSP) Sandpit.
- **Expansion of GFI test tools** – understanding the impacts of expanding the current GBCS for Industry (GFI) test tools and the proposed user functionalities this can provide service users.
- **Next Generation Test Automation** – how the proposed automation of DCC testing can help validate the communications between devices and the DCC ecosystem.
- **Alerts lost during Scheduled Maintenance** – exploring options to tackle loss of Alerts during scheduled Maintenance.
- **Assessment of Export Requirements** – a review of how export is currently operated within smart metering.
- **Market Wide Half Hourly Settlement** – considering the design positions of the proposed solutions and considering the impacts this might have on smart metering technical and business architecture.
- **P379 (Meter Splitting)** – considering the impacts this might have on smart metering technical and business architecture.

Looking forward, and as part of the TABASC's enduring governance role, the Sub-Committee has undertaken preparatory work relating to the handover of the BEIS led Technical Specification Issue Resolution Subgroup (TSIRS). This includes ensuring processes are adopted and in place in terms of workflows and interactions with the SEC Change Sub-Committee.

3.2 TAG

The TAG met 25 times this year, its primary focus on managing testing and Release activities with the DCC. The TAG continues to be well supported by industry, providing expertise from energy suppliers, Network Parties, shared resource providers, meter & display manufacturers, trade bodies, SECAS and the DCC. Members have provided significant input into testing matters, reviewing a significant volume of materials produced by the DCC in order to determine go live readiness.

During the course of the year, the TAG approved System Integration Testing (SIT) Exit for Release 2.0 and SMETS1 Initial Operating Capability (IOC) and Middle Operating Capability (MOC), including oversight of migration and system capacity testing, and reviews of the Testing Depth, Breadth and Regression documents.

It was involved in the decision-making process for SMETS1 entries onto the Eligible Products Combination List (EPCL), agreeing and overseeing completion of the Live Services Criteria. The TAG also recommended several changes to the SMETS1 Device Model Combination Testing (DMCT) Test Pack produced by the DCC. TAG oversaw SIT Testing associated with the November 2019 Release, providing valuable input into the DCC's Testing Approach Document.

In response to a number of DCC Change Requests, raised to provide additional functionality, TAG and the DCC established the SMETS1 'Core 1.1 Uplift' which will enable the DCC to migrate more SMETS1 Devices into the DCC solution, and resolve issues identified in the production environment. An implementation approach has been discussed whereby SMETS1 Core 1.1 uplift and June 2020 Release activities are taken into the SIT-A environment at the same time, to optimise the governance overhead and regression testing. And finally, through its work on November 2019 and June 2020 the TAG has developed a risk mitigation approach to mitigate the risk of congested environments.

3.3 Operations Group

The OPSG met 24 times this year. Throughout this period, use of the DCC end to end services has grown substantially, with the inclusion of the first SMETS1 and Prepayment devices. As a result, the purpose of the Group - to deal with operational matters relating to services provided under the SEC, and to enable DCC and its Customers to raise and share operational matters - has become increasingly important. Due to the increase in items for discussion, OPSG now meets twice monthly with the introduction of a teleconference to review the SEC operational reports. SEC Parties (including DCC) have devoted considerable efforts to participating in the work of the OPSG.

As part of its regular duties OPSG reviews SEC operational reports produced by the DCC. This task has included questioning service performance, and, on occasion, seeking DCC's commitment to remediation plans, with the OPSG subsequently reviewing the outcomes.

This work has highlighted inconsistencies in reporting, as well as concerns that the performance metrics themselves are not reflective of the User experience. The OPSG initiated a review of the Performance Measurement Report (PMR) and the Code Performance Measures (CPMs). User workshops and trials were undertaken with SEC parties in cooperation with the DCC's TOC team to assess areas for consideration and improvement. The final report and recommendations will be considered at the April 2020 Panel meeting.

The OPSG has had additional tasks delegated to it from the Panel during the year, for example, the PMR Review Project (above), remediation plans for Superfluous Alerts, and the 'Addressing Party Differences' process. The Smart Metering Delivery Group (SMDG) and SEC Panel directed OPSG to take a leading role in overseeing the Superfluous Alerts issue. A coordinated effort between DCC, BEIS and SECAS has led to significant progress in identifying, investigating and resolving the highest priority alerts. Due to the impact that the Superfluous Alerts issue has had on the DCC service, the OPSG has been reviewing Capacity Management and DCC Performance to ensure a stable service can be maintained, and has requested the DCC provide updates on remediation plans for key performance metrics as well as Quarterly Capacity reporting.

In accordance with the governance arrangements for SMETS1 Release 3.0 (R3.0) and SEC Releases, the OPSG reviewed evidence from the DCC to ascertain operational readiness and made recommendations to the Panel with regards to November 2019 and R3.0 go live. In a similar fashion, the OPSG endorsed the inclusion of Itron IOC, Elster IOC and Elster MOC cohorts, having considered factors such as suitable system and resourcing to migrate, whilst maintaining a stable service for both SMETS1 and SMETS2. The DCC now provides monthly reporting to the OPSG on migration and operational performance of enrolled SMETS1 Devices. Looking forward, the OPSG still have an important role in the governance of the remaining SMETS1 cohorts, with the Final Operating Capability (FOC) due in July 2020.

Amongst other topics that the OPSG has addressed have been:

- DCC Business Continuity and Disaster Recovery testing
- Major Incidents
- Refinement of Incident Management Process
- Improvements to the SSI
- Implementation of an improved approach to Planned Maintenance
- Improvements to the service forecasting process

Over the past year, the DCC has introduced significant changes following OPSG feedback, and the Group continues to assess these improvements and seek assurances from the DCC that learning is applied to its operational processes and systems.

3.4 CPL

Certified Products List (CPL) activities have been high this year, highlights of which are included in the table below:

Central Products List statistics	Number
CPL versions issued	69
SMETS2 new Device Models added	111
SMETS1 new Device Models added	13
Device Models removed	20
Functionality updates: SMETS1 CPL, November 2019 Release Technical Specification	2

An increasing number of SMETS2 Device Models have been added to the CPL, along with associated updates being made to the Firmware Information Repository (FIR), which allows gaining Suppliers to access contact information for the relevant meter manufacturer.

We have also introduced several changes to the CPL management processes brought on by the Enrolment and Adoption of SMETS1 Device Models. This has included applying the necessary functional updates to allow the addition of SMETS1 Device Models onto the CPL, as well as publishing two new webpages on the SEC website to host the [SMETS1 Pending Products Combination List \(PPCL\)](#) and [SMETS1 Eligible Products Combination List \(EPCL\)](#).

In July 2019, following BEIS approval of several DMCs onto the PPCL and EPCL, the individual SMETS1 Device Models of which the DMC is comprised, were successfully added to the CPL. We also facilitated the SSC in exercising its powers under the SEC to action remedial plans, as well as remove several Device Models from the CPL as a consequence of a CPA Certificate expiry, withdrawal or cancellation. The November 2019 Release introduced new technical specification functionality onto the CPL, including SMETS v4.2, CHTS v1.4, GBCS v3.2.

SECAS has also developed a tool to enhance the CPL management process and streamline the submission process.

4. Modifications and Releases

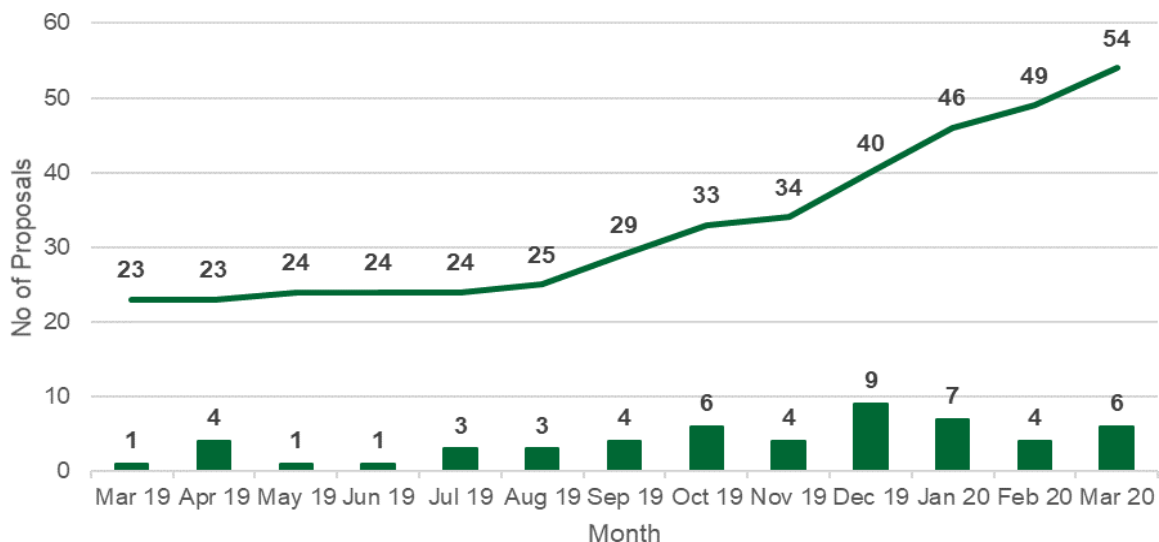
4.1 Draft and Modification Proposals

The number of new proposals raised increased significantly this year, as roll-out has accelerated, and Parties have made increasing use of the arrangements. 52 new Draft Proposals were raised, adding to the 23 already open at the start of the year. The following table sets out the number of modifications raised, progressed and closed in the year:

Modification Status	Number
Modifications open at start of regulatory year	23

Modifications raised during regulatory year	52
Modifications concluded during regulatory year	21
<i>Approved</i>	17
<i>Rejected</i>	1
<i>Withdrawn</i>	3
Modifications open at end of regulatory year	54

The graph below illustrates the month by month increase. The bars represent new proposals raised per month, and the line is the cumulative number.



In response to this, SECAS has streamlined processes, whilst ensuring due diligence is completed for each proposal. The Panel also endorsed a prioritisation approach developed by SECAS and the DCC, which ensures higher-value modifications are given priority during times of constraint.

In August 2019, the SEC Panel noted that the DCC was consistently exceeding the response times for delivering DCC Assessments introduced by [SECMP0034 'Changes to the SEC Section D for DCC analysis provisions'](#) in the previous regulatory year. It wrote to the DCC to request it deliver an action plan for improving the delivery of DCC Assessments, which was duly presented to the Panel in February 2020. The Panel will continue to monitor this, with the DCC presenting updates on progress at regular intervals.

4.2 SEC Releases

18 approved Modification Proposals were implemented via SEC Releases this year:

- The **June 2019 SEC Release** contained one modification.
- The **November 2019 SEC Release** contained 10 modifications.
- The **February 2020 SEC Release** contained three modifications.
- Four further modifications were implemented across the year via ad-hoc releases.

The November 2019 SEC Release was the first full SEC Systems Release to be implemented, containing four modifications that impacted on the DCC Systems. The Panel reviewed the SEC Release Management Policy in the first half of the year, approving an updated version in September 2019 to include greater clarity around the framework for SEC Releases.

The Panel previously noted exceptionally high implementation costs being produced by the DCC for SEC modifications and sought a long-term approach that would allow the industry visibility of the costs of modifications prior to the final decision being made. The DCC initiated a cost benchmarking exercise in early 2019 in order to help identify an enduring approach, and its report was presented to the Panel in June 2019.

4.3 Modification framework enhancements

The new modifications framework, introduced by [SECMP0049 'Section D Review: Amendments to the Modification Process'](#) at the end of the last regulatory year, included the introduction of the Development Stage. This enables issues identified by new proposals to be assessed by the industry prior to becoming formal Modification Proposals. It also ensures the problem identified by a Proposer is fully understood before any work on solutions is commenced.

This stage is overseen by the Change Sub-Committee (CSC), which met for the first time in April 2019. It has continued to meet monthly to review all new Draft Proposals and provide the Panel with a recommendation on whether they are ready to be converted to a Modification Proposal.

Throughout the year, SECAS has continued to review the framework, to identify further ways to streamline the process. Proposer ownership of modifications, as required under the Code Administration Code of Practice (CACoP), has been central to this, with SECAS and the DCC working closely with Proposers to develop requirements and solutions before presenting these to the Working Group and Sub-Committees for comment. This has reduced the amount of time the wider industry needs to spend discussing modifications, focusing their time where it can be of greatest benefit. The Working Group has also been streamlined into a monthly session covering multiple modifications, further streamlining Party input. SECAS continues to prepare all modification documentation on behalf of Proposers, including the Modification Report, legal text and business requirements.

It has been a year since the new framework was introduced and the Panel will be carrying out a post-implementation review during the forthcoming year. Feedback from Parties received to date has been positive, that this new stage is providing benefits for the subsequent progression of proposals.

4.4 SEC document management

In September 2019, the Panel approved SECAS to undertake a SEC Document Management Review. Key outputs from this project were implemented in the February 2020 SEC Release, which included a more efficient version control for the SEC, a Document Log showing all live SEC documents and their histories, and an approach to categorising related documents together. A second phase is being prepared that will seek to streamline the SEC documentation and introduce improved governance for 'code defined documents' referenced in the SEC. SECAS will also be looking at any parts of the SEC that can be written in a clearer way.

CodeWorks was also introduced in November 2019, containing all of the SEC Sections and Schedules. This platform is now the main repository for these documents, with legal text also being prepared on this platform. The SEC Appendices will be added in due course to complete the full suite. SECAS will continue to enhance CodeWorks to provide a full platform for managing the SEC documentation.

4.5 Transitional Governance

In addition to Modification Proposals, other changes to the SEC arise from the Programme through the ongoing SEC development under Transitional Governance. Throughout 2019-20, 14 BEIS-designated changes were implemented into the live SEC, with configuration management support provided by SECAS. The Secretary of State can also direct Variations, which alter the timings of obligations laid out in the SEC. No such variations were directed in 2019-20.

5. Security and Privacy Provisions

Security and privacy is at the heart of everything we do to ensure there is no single point of vulnerability. We successfully implemented Egress 2-factor authentication adding a further layer of security to the platform to ensure protection of the sensitive materials shared between the User CIO, Parties, SECAS as well as SSC and PMA members.

Ensuring the most cost-effective approach for Users also remains a priority. We have increased SEC Party engagement activity this year and worked closely with the User CIO to incorporate feedback into continuous process improvement, including enhancement of guidance and assessment support documentation published on the SEC Website.

Digital solutions have been incorporated to improve the customer experience, and a new Virtual Assessment Model for Security and Privacy assessment launched, allowing us to continue operating in the current environment. As part of developing the Codeworks Digital Platform we will shortly be releasing interactive digital versions of the Security (SCF) and Privacy Control Frameworks (PCF) and the Agreed Interpretations (AI), aimed at helping newer market entrants and Small Suppliers to better navigate the SEC Obligations in preparation for their Security and Privacy Assessments.

5.1 Security Sub Committee

The Security Sub-Committee (SSC) develop and manage the User Security Assessment documentation that SEC Parties and DCC Users require, as well as the wider requirements associated with SEC Section G 'Security' such as reviewing security-related modifications and overseeing and maintaining the Security Characteristics for the Commercial Product Assurance Scheme (CPA).

Meetings and Assessment Activity

The SSC met 28 times this year and continues to manage a packed agenda every month. A large part of SSC's work continues to be progressing Parties through the Security Assessment process. Over 100 Full User Security Assessments, Verification User Security Assessments, Self-Assessments, Director's Letter and Follow-Up Assessments have been reviewed. Over 70 assurance and compliance statuses were set in the year, and 31 Directors Letters Approved. March saw the first of our Virtual Assessments successfully conducted by the User CIO.

Publications and Guidance Development

SSC and the User CIO have also focused their efforts on improving guidance for Users to ensure better preparedness for Assessments to help drive down costs.

The SSC released 18 publications this year, including an updated Security Assessment Validation Workbook and Security Self-Assessment Questionnaire, as well as several updates to the SCF, PCF and AI. This covered SMETS1 'Appropriate Standards'; alignment of the Network Information System (NIS) Directive and its associated Cyber Assessment Framework (CAF) with the SEC Security Requirements; Smart Metering Inventory (SMI) volume checks for enrolled SMETS1 and SMETS2

Devices; Assurance Status Types; BS7858:2019 Standard updates; G4.2(b) clarifications; handling of material security vulnerabilities; Random Sample Privacy Assessments and meeting the SEC G3.20 obligation. Other Guidance publications also included CPA Security Characteristics, CPA SSC Guidance on Device Refurbishment, and Triage Guidance aimed at wider industry participants such as meter manufacturers.

Other Activities

While assessment reviews for DCC assurance remain a core function of SSC, there has been an increase in activities regarding Live Services Criteria approvals for Enrolment and Adoption for the first SMETS1 meter cohort released as part of IOC, MOC and FOC considerations. The SSC are provided with regular updates from the DCC regarding the different aspects of SMETS1 enrolment, including the DCC's remediation plan; CIO report updates; SMETS1 alert storms; the risks of XML signing enforcement; security testing Assurance proposals; SMETS1 Certificate issues and Penetration Testing.

As part of the transferred responsibility from BEIS for CPA monitoring, the SSC continues to monitor the progress of firmware upgrades via regular remediation plans obtained from suppliers where CPA Certificates have been withdrawn or are due to expire. May 2019 saw the first occasion of the removal of several firmware versions from the CPL, due to expiry of CPA Certificates. A further set of Devices was also removed from the CPL at the end of August 2019.

SSC have also hosted three of the quarterly CPA Industry Days and supported the NCSC hosted event including presentations from the SSC Chair, BEIS, NCSC and SECAS Security Experts. At the most recent quarterly event all 46 attendees dialled into a fully remote Teams meeting. A range of topics were covered including Updating the Security Characteristics Threat Maps, CPA Build Standards, Use Case Guidance (Factory Reset), Lessons Learned and Strategic Developments, all of which generated useful debate and feedback from industry representatives in attendance. Earlier in the year an introduction to Quantum Computing was also presented.

Significant improvements have also been made to develop a suitable Anomaly Detection Threshold (ADT) Report in order to monitor the effectiveness of this security control and support the SSC in their annual review and setting of the threshold figures with DCC.

The SSC continues to maintain quarterly reviews of Standards and the SSC Risk Register with support from SECAS and the Security Experts.

Project and Procurement Activity

It has also been a busy year for project and procurement activity. As part of meeting its Annual Security Obligations under the SEC, the SSC sponsored the 'Mitigation of Risks of Internet Connected Devices' project, an outcome of the 7th Iteration SSC End-to-End Risk Assessment. It also facilitated a Security Incident Management exercise, where attendees ran through several hypothetical security incidents to check that the correct processes are in place for real-life security incidents. The Security Architecture Documentation was reviewed and updated for SMETS1, and the 8th Iteration of the SSC End-to-End Risk Assessment was commenced. And, finally, a tender process is being carried out for the User Competent Independent Organisation (User CIO) for the Security and Privacy Assurance of DCC Users, which is due to complete in the first quarter of 2020-21.

5.2 SMKI PMA

The Security Management Key Infrastructure and Privacy Management Authority (SMKI PMA) oversees the effectiveness of the SMKI Document Set and the SMKI Services. SMKI PMA met 15 times this year and facilitated several working group meetings to review and make amendments to the

Recovery Procedures in SEC Appendix L, to discuss the impact on the DCC, and to consider DCC use of additional Public Key Infrastructure (PKIs) for SMETS1.

SMETS1 Enrolment and Adoption has impacted SMKI activities this year. The SMKI PMA has been monitoring the DCC updates on the provision of the Certificate Policy (CP), Certification Practice Statements (CPS) and other relevant documentation for the MOC and FOC SMETS1 cohorts.

SMKI PMA reviewed the outcomes of the DCC facilitated Recovery in the Live Environment exercise in July 2019, including highlights regarding the arrangements of the Key Custodians who were in attendance, lessons learned and the cost analysis for the Recovery exercise.

SMKI PMA determined the assurance status of the DCC in relation to SMKI Services following the outcome of the tScheme audit undertaken by the DCC. Consequently, the DCC were required to make amendments to SEC Appendix D – SMKI Registration Authority Policies and Procedures, and SEC Modification [DP110 'Aligning SEC Appendix D with DCC Processes'](#) was raised which continues to be monitored by the SMKI PMA.

The SMKI PMA has also drafted bespoke guidance specific to Smart Metering to replace SEC references to the discontinued or changed NCSC Good Practice Guides (GPGs) 43, 45 and 46. This will now also require a change to SEC references to GPG 13, and a SEC Modification has been raised ([MP115 'Changes to the NCSC Good Practice Guides'](#)). Additionally, SMKI PMA has been active regarding change proposals, notably regarding changes to the SMKI Repository, Obtaining SMKI Device Certificates and changes arising from SMKI Recovery Scenarios Exercise.

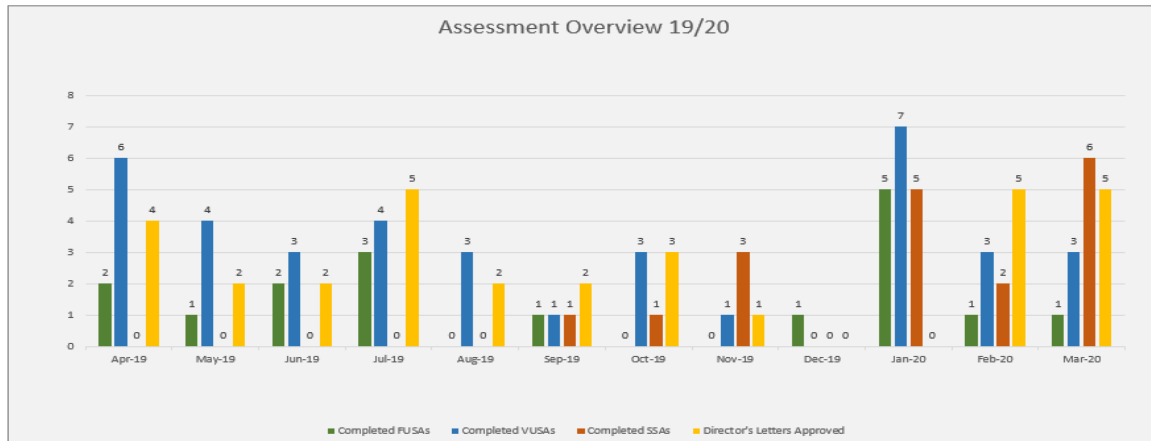
Looking forward to next year, the SMKI PMA will focus on the SMKI Document set review which is being conducted by the SMKI PMA specialist in the first quarter of 2020-21.

Security Highlights

01/04/2019 - 31/03/2020

71 Average Number of Parties In Monthly Assessment Process	95 Fieldwork Assessments Completed	56 Total FUSA & VUSA Presented at SSC	18 Total Self-Assessments Presented at SSC	31 Director's Letters Approved at SSC	107 Assessments Prepared for Review
23 Assurance Status' Set	49 Compliance Status' Set	28 SSC Meetings	15 SMKI PMA Meetings	9 Engagement Meetings or Events (For SEC Parties & with User CIO)	18 Guidance Publications (Including SCF, PCF, AI, CPA, Other)

Assessment Overview 19/20

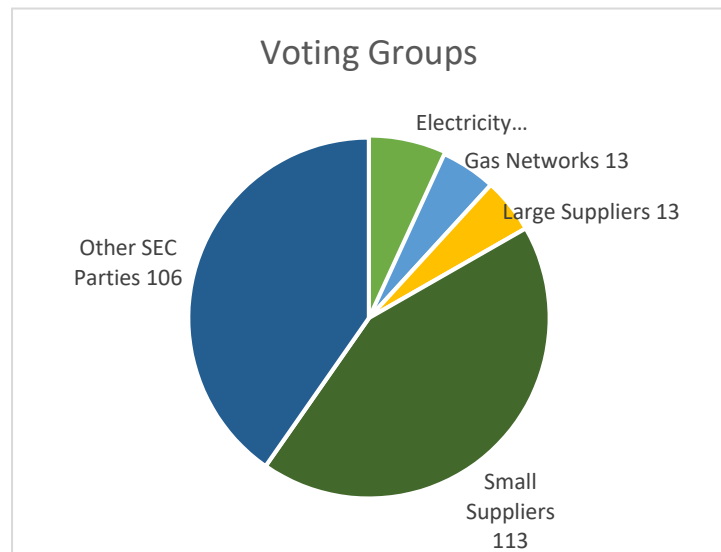


6. Party Support

6.1 Market Entry and Exit

The SEC Panel oversees applications from organisations wishing to become a SEC Party and manages the exit of Parties under SEC Section C2.3. In 2019-20, 22 new Parties joined the SEC, with 8 Parties leaving through expulsion. The Party count now stands at 333, representing 263 Voting Groups, as illustrated in the below table and pie chart.

Party Type	No. Parties 2019/20
Electricity Networks	27
Gas Networks	20
Large Suppliers	28
Small Suppliers	137
Others	120
DCC	1
Total	333



6.2 User Entry Process

Section H1 sets out the User Entry Process that must be completed by Parties prior to them being able to access DCC Services as a DCC User. 31 Parties successfully completed this process.

Party Type	No. Parties 2019/20
Electricity Networks	0
Gas Networks	0
Large Suppliers	0
Small Suppliers	25
Others	6
Total	31

6.3 Defaults, Disputes and Supplier of Last Resort

No disputes were raised in the year, and eight Parties that were subject to the default provisions were subsequently expelled from the SEC. We have noted a continued increase in the number of Small Suppliers who have ceased trading, and/or failed to pay their DCC charges. SECAS has developed a robust and efficient process when dealing with Events of Default and continue to refine this as new Defaults arise.

The increase in the number of Supplier failures revealed areas for improvement in the current SoLR processes. Whilst the failures have, so far, ultimately resulted in exits from the market and transfer of consumers to an incoming SoLR, there have been several issues along the way. As a result, the SEC Panel tasked SECAS with co-ordinating a project to ensure that all SoLR scenarios are documented, processes improved, and the interactions between different parties clarified. The focus has been looking at SoLR scenarios which affect consumers whose meters are operated via the DCC, either SMETS2 or SMETS1 through enrolment and adoption, and in particular, looking at pre-pay. SECAS facilitated a number of workshops with the DCC, Suppliers, Shared Resource Providers, BEIS and Ofgem. The project is due to conclude in May 2020 and will have produced process improvements, guidance for Suppliers & Shared Resource Providers, raised a SEC modification and worked with Ofgem to raise a complementary Licence amendment.

6.4 Party Engagement

SECAS has introduced several digital solutions to improve its services, increase engagement and provide new ways to share insight with SEC Parties.

The Annual SEC Panel Engagement Day in July 2019 saw the highest level of engagement to date, with over 50 SEC Parties attending. For the first time, the presentations were video recorded to enable those unable to attend the event to benefit from the knowledge shared throughout the day. SECAS also introduced Slido, an online tool allowing SEC Parties to submit anonymous questions to the Panel, which proved very popular and stimulated a lot of engagement. The responses and video presentations were published on the website and communicated to SEC Parties via the newsletter.

SECAS has also facilitated five 'Introduction to the SEC' and 'Spotlight on the SEC' engagement events, attended by 75 Parties with a range of experience and diverse needs. Moving forward, SECAS will introduce a series of educational webinars to enable more SEC Parties to build their knowledge and keep up to date with the latest industry developments.

In response to feedback from SEC Parties, the frequency of the SEC Newsletter has been increased to bi-monthly and continues to be seen as a valuable resource. We've also introduced Small Supplier Engagement calls to communicate relevant updates from SEC Panel meetings and to provide an opportunity for Parties to raise questions and concerns with their Panel Representatives.

As part of our Digitalisation strategy, we also launched CodeWorks, a digital version of the SEC, allowing Parties to more easily search for and engage with information relevant to them. Over 320 SEC Parties have so far registered to use this. And the website has been updated with new features and formatting to enhance user experience. Content has been simplified by using Plain English, and processes have been digitised.

The Panel and SECAS has also continued to support the Transitional Governance arrangements by attending transition workgroups and providing a Plain English summary of key discussion topics and outputs in the monthly Transitional Governance Update paper presented to the Panel.

6.5 Customer Satisfaction Survey

On the back of last year's annual customer satisfaction survey which demonstrated very good satisfaction levels across the SECAS services, the team has acted on any areas identified for improvement. Notably, the SEC website pages have each been updated to improve navigation and enhance clarity by simplifying language and removing technical jargon. Papers for Sub-Committee meetings are now more concise, contain clarity of purpose, and are written in Plain English. Teleconference facilities have been improved. And the Change Modification process has been enhanced to improve the level of critical friend support, time spent at the 'Problem Definition stage'

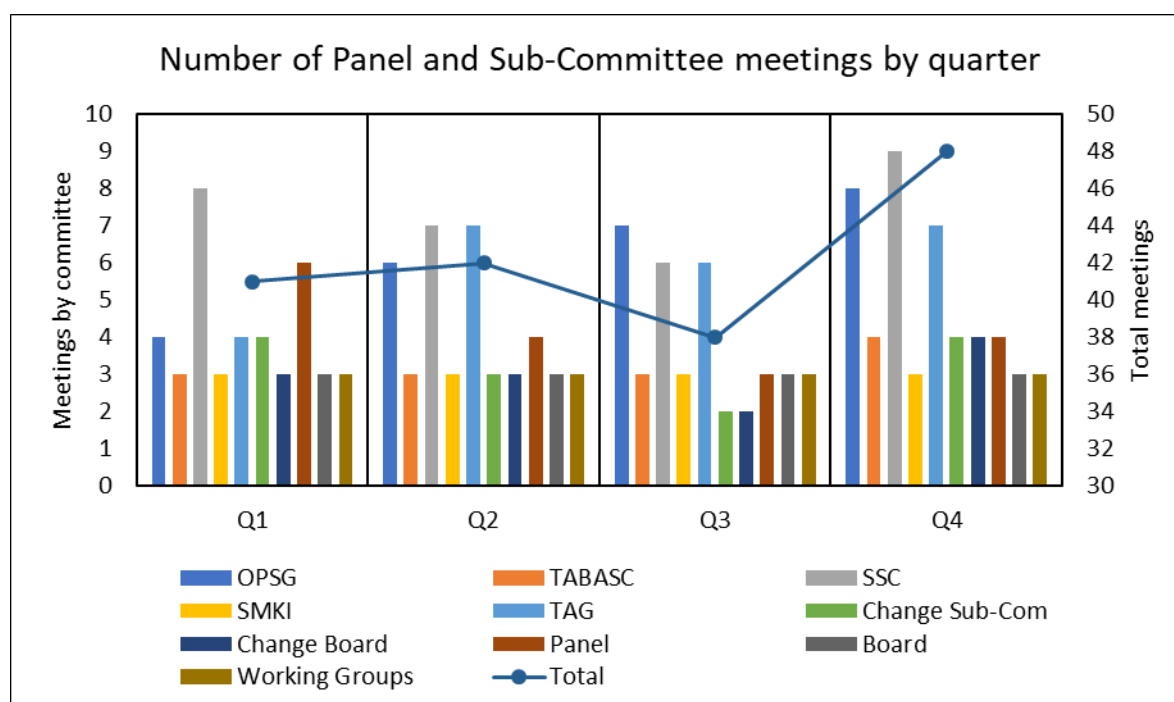
and the timelines of DCC costing information. The latest SECAS customer satisfaction survey has just been carried out, with results due to be presented to the SECCo Board in May.

7. Committee Support

The Committee Support team has facilitated over 160 meetings for the SEC Panel, SECCo Board and its Sub-Committees, compared to 120 last year. The increase has been driven by the need to facilitate key decision points for the DCC; the identification of high-profile operational issues; the transition of CPA responsibilities to SSC; and extraordinary meetings to support recommendations to BEIS on the migration of SMETS1 DMCs. The frequency of these decision meetings will be maintained into next year to meet the go-live schedule.

Across all Sub-Committees, over 1250 actions were captured over the course of the year – a 52% increase on the previous year, of which 85% have been closed.

We've been encouraging greater participation across SEC Party types at the Sub-Committee meetings, successfully recruiting more Small Suppliers to fill vacant positions. And we've successfully transitioned to running fully remote meetings, since the pandemic outbreak.



8. Alt HAN Activities




The Eighth General SEC Objective relates to activities of the Alternative HAN Forum (the “Forum”) on the establishment and operation of Alternative HAN Arrangements. Section Z 1.3 sets out the objectives of the Forum and provides the framework within which all Alt HAN activities must operate.




The 2019-2020 Regulatory Year saw the continued operation of the Forum and a steady increase in the pace of activities following the launch of the Alt HAN Programme. The Alt HAN Forum have made significant progress this year towards Alt HAN Arrangements and the figure below outlines the key activities taken during 2019-20.



April - June	July - September	October - December	January - March
<ul style="list-style-type: none"> • Alt HAN Draft Supplier Contract submission to all Relevant Supplier Parties for consultation • Alt HAN Operational Services full contract awarded to Capgemini • Forum approval of the Alt HAN Programme re-plan (CR016) • Baseline approval for Economic Case 4.0 which had been updated to be comparable with the BEIS CBA • Alt HAN Operational Services commence Level 1 & 2 building surveys to support identification of Alt HAN Candidates and Market Sizing information 	<ul style="list-style-type: none"> • Forum approval of Exempt Premises List (EPL) 1.0 submission to BEIS • Siemens successfully enter Design and Build phase which will include building prototypes • Alt HAN Co release a request for Energy Suppliers to participate in Integration Trials • Forum approval of the Alt HAN Charging Mechanism Detailed Design V1.0 • Forum review of BEIS potential non-HAN contingency options for consideration • Alt HAN Budget Development commences FY 20/21 • Capgemini hold the first Supplier Engagement event facilitating Energy Supplier engagement on key Alt HAN Operational Services deliverables. 	<ul style="list-style-type: none"> • L&G successfully enter Design and Build phase which will include building prototypes • Draft blank EPL submitted to BEIS in readiness to support the manufacture stage of the Alt HAN Technology Services Project. BEIS review of the Supply Licence Conditions commenced. • Alt HAN Co mobilises the Energy Supplier Readiness workstream • Managing Director Paul Cooper appointed and Delegated Authority established • Alt HAN Operational Services High Level design completed with associated deliverables approved • Charging Methodology Consultation for V2 of Detailed Design was approved for release by the Forum, the consultation ran for two weeks and requested views on the proposed design. 	<ul style="list-style-type: none"> • Solution Financing SEC Modification successfully implemented allowing a loan to be secured for Roll-out and Design and Build Phase financing • BEIS release consultation on proposals for Licence amendments relating to the submission of an EPL • Capgemini hold the second Supplier Engagement event facilitating Energy Supplier engagement on key Alt HAN Operational Services deliverables and providing details ahead of supplier onboarding. • Alt HAN Co appoint David Gillies as Human Resources Director • Alt HAN Co start development of the Target Operating to help shape and design the structure of Alt HAN Co in the future


9. SEC Objectives




Having regard to the foregoing activities and achievements for the Regulatory Year 2019-20, the SEC continues to meet the SEC Objectives as outlined in the table below.

Objective	Status	Notes
First General SEC Objective - to facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises within Great Britain.		<p>This General SEC Objective continues to be met through activities that the Panel and the Sub-Committees undertake, including:</p> <ul style="list-style-type: none"> Supporting DCC Release activities through the Panel, OPSG and TAG decision-making activities; Managing the resolution of issues through the OPSG; Sub-Committees continually monitoring the installation, operation and interoperability of Devices, reporting any issues to the Panel as required; Supporting Draft and Modification Proposals through the process, with oversight from the Panel and the Change Sub-Committee and continuous process improvement; and SECAS and the Panel Chair attending the BEIS Groups and keeping the Panel and Parties apprised of developments through the monthly Transitional Governance Update paper. Consultation responses have also been submitted where appropriate from the SEC Panel or Sub-Committees.
Second General SEC Objective - to enable the DCC to comply at all times with the General Objectives of the DCC (as defined in the DCC Licence), and to efficiently discharge the other obligations imposed upon it by the DCC Licence.		<p>Where there is a dependency on the SEC operations for the DCC to comply with its Licence, the Panel has acted promptly and proactively to ensure that it achieves its responsibilities in a consultative manner, whilst not frustrating the process for the DCC to meet its obligations. The majority of the DCC's obligated reporting has been delegated by the Panel to the OPSG for review, with any issues being highlighted to the Panel as required.</p> <p>DCC progress in delivering against its obligations is monitored through an update from the DCC Panel Member provided at SEC Panel meetings, regular meetings with the DCC, and monitoring of consultations, activities and updates at industry meetings.</p>
Third General SEC Objective - to facilitate Energy Consumers' management of their use of electricity and gas		<p>Energy Consumers are now able to access data derived from their electricity and gas usage following DCC Go-Live and take up of DCC Services.</p>

through the provision to them of appropriate information by means of Smart Metering Systems.		<p>The impacts on Energy Consumers is monitored by the Panel and supplemented by the consumer representation by Citizens Advice at both the Panel and on the SECCo Board. SECAS has been engaging more closely with Citizens Advice, providing them with tailored information on modifications and other areas of interest to enable them to be more involved in consumer impacting areas rather than across the whole smart arrangements. SECAS will continue to build on this in the coming year.</p> <p>SECAS has strengthened the relationship with Smart Energy GB to share insight with SEC Parties at regular engagement events, including the development of their marketing campaign and the impact this has had on the habits of consumers and their energy usage.</p>
Fourth General SEC Objective - to facilitate effective competition between persons engaged in, or in Commercial Activities connected with, the Supply of Energy.		<p>The development of the overall market design and DCC Services under the SEC, together with the technical and security framework, support the aim to facilitate effective competition under this objective.</p> <p>All Party Categories are represented on the SEC Panel and Sub-Committees to ensure their differing needs are represented.</p> <p>Information is available on the SEC Website for all Parties, regardless of Party Category. The introduction of CodeWorks enables Parties to view only the obligations relevant to their SEC Party type.</p>
Fifth General SEC Objective - to facilitate such innovation in the design and operation of Energy Networks (as defined in the DCC Licence) as will best contribute to the delivery of a secure and sustainable Supply of Energy.		<p>Network Parties' participation is integrated into the SEC governance entities as well as their rights as SEC Parties.</p> <p>Continued involvement of Network Parties in the achievement of the Transition Objective and the evolution of the SEC, alongside liaison with other Industry Codes, ensures it continues to support this objective.</p> <p>SECAS continue to engage with the Network Parties, ensuring that they are fully appraised of new SEC content and their implications.</p>
Sixth General SEC Objective - to ensure the protection of Data and the security of Data and Systems in the operation of this Code.		<p>This SEC Objective continues to be met, with the SEC security requirements and architecture ensuring appropriate protections, responses and remediations are in place.</p> <p>The SSC has continued to develop relevant processes and procedures throughout the year to support the requirements set out within the SEC. The SSC has formalised and substantiated the process for tracking, monitoring and remediation of Users' non-compliances.</p>

		<p>The SSC monitors Devices with either conditional CPA or those Devices with certificates that are approaching expiry or have been withdrawn. The SSC has instructed the removal of Devices from the CPL that have been unable to upgrade to more current firmware versions.</p> <p>SECAS has implemented 2-Factor authentication for its file sharing platform which adds an additional layer of security in the sharing of assessment documentation.</p> <p>The Panel reviews its Panel Information Policy on an annual basis to ensure it remains fit for purpose.</p> <p>SECAS has built a relationship with and will work alongside the Information Commissioner for data protection activities. The Panel has retained the obligation for data protection rather than delegating to a Sub-Committee and has set up a Memorandum of Understanding with the Information Commissioner to enable information sharing.</p>
Seventh General SEC Objective - to facilitate the efficient and transparent administration and implementation of this Code.		<p>The SEC Panel and SECCo Board have been established and have demonstrated their commitment to this objective through undertaking the Panel Duties in accordance with the Panel Objectives as laid out in the SEC.</p> <p>SECAS supports this General Objective through issuing communications to SEC Parties, including providing updates on Sub-Committee activities, modifications going through the process, and the SEC Panel budget.</p> <p>Amendments to the SECAS services over the past year have included: the introduction of CodeWorks; the new 'pre-modification' process; a review of the SEC Website; the introduction of videos at events to allow more SEC Parties to benefit from knowledge shared; the use of 'Slido', an online tool which facilitates SEC Party engagement; and the launch of a Virtual Assessment Model for Security and Privacy assessments.</p>
Eighth General SEC Objective - to facilitate the establishment and operation of the Alt HAN Arrangements.		<p>The Alt HAN Arrangements are detailed in SEC Section Z. The Alt HAN Forum is now in its fourth year of operation and continues to grow, working towards its objectives laid out in the SEC. Five Sub-Groups are currently in operation to support Alt HAN Activities at the direction of the Forum.</p> <p>The Alt HAN Co Board provides governance and fiduciary oversight necessary for Alt HAN Co-operation and the Board's objectives are detailed within the SEC. The Board is elected from any Relevant Suppliers, approved by the Alt HAN Forum, and is currently made up of seven members.</p> <p>2019-20 saw the Technology Services Vendors Siemens and Landis & Gyr entering the Design and Build Phase, creating prototypes for the Shared and P2P Solutions. The Forum provided advice during</p>

		<p>the Offer Update Process for both Vendors. A number of checkpoints for potential downselection to a single vendor were established within the plan, with a set of pre-defined criteria to assess whether downselection is appropriate. At the end of March 2020 both vendors continue in the Design and Build Phase. Siemens has provided 3D prints of the device types that will be built to Forum Members and the OPSG signed off the connector block to be manufactured as a prototype. Landis & Gyr hosted a visit the test lab of its design partner, Cambridge Consulting, for OPSG members.</p> <p>The Alt HAN Operational Services Provider made considerable progress with new deliverables. The initial phase of building surveys is nearing completion, and the initial market sizing forecast based on the survey data has been provided to Energy Suppliers. The information captured from the surveys together with other industry data will help to build the Inventory that Energy Suppliers will use as a database to identify Alt HAN Candidates. An updated market sizing forecast will be provided to Energy Suppliers next year.</p> <p>Alt HAN Co went through a change in structure with the appointment of Paul Cooper as the Managing Director and first employee. In addition to the existing six delivery projects, a number of additional projects were established including Testing and Assurance, Supplier Readiness and Target Operating Model. The Programme delivered key milestones such as the completion of the analysis of possible financing structures to be used for the Alt HAN roll-out, along with the submission of the Forum-approved EPL list to BEIS. BEIS has determined it is unable to approve a blank EPL, and has decided to amend licence conditions to remove the dependency requiring an approved EPL prior to commencement of Alt HAN Services. Alt HAN Co also made its first draw down on the development financing facility secured in March.</p> <p>The upcoming year will see major developments in the Alt HAN Technology Services and Operational Services milestones along with the finalisation of the Alt HAN Co Supplier Contract. The Forum is preparing to balance these considerations, working closely with BEIS to make certain they proceed in the most economic and efficient manner.</p>
Transition Objective - the efficient, economical, co-ordinated, timely, and secure process of transition to the Completion of Implementation.		SEC Section X outlines the transitional arrangements. Progress and outputs of the Transition Working Groups are monitored on a monthly basis and Panel and SECAS operations have been fully prepared to receive updated Code content and SEC Subsidiary Documents upon designation.

Charging Objectives - First Relevant Policy Objective.		The first Charging Methodology in SEC Section K meets the aim of the objective by applying uniform charges to Domestic Premises.
Charging Objectives - Second Relevant Policy Objective.		The Charging Methodology has been implemented within the SEC and the Charges applicable within the reporting period facilitate the implementation of the DCC Services reflective to the DCC costs.
Charging Objectives – Third Relevant Policy Objective.		The first Charging Methodology has been implemented within the SEC and the Charges applicable within this reporting period facilitate the implementation of the DCC Services reflective to the DCC costs.



Continues to meet Objective



Will be met subject to the introduction of future SEC content