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MP092 'New Planned Maintenance Methodology'

Modification Report

Version 1.0

14 December 2020

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592



About this document

This document is a Modification Report. It sets out the background, issue, solution, impacts, costs, implementation approach and progression timetable for this modification, along with any relevant discussions, views and conclusions.

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This document also has four annexes:

- **Annex A** contains the redlined changes to the Smart Energy Code (SEC) required to deliver the Proposed Solution.
- **Annex B** contains the full Data Communications Company (DCC) Preliminary Assessment response.
- **Annex C** contains the full responses received to the Refinement Consultation.
- **Annex D** contains the results of the trial that were presented to the Operations Group in December 2020.

Contact

If you have any questions on this modification, please contact:

Emmanuel Ajayi

020 8132 4134

emmanuel.ajayi@gemserv.com

1. Summary

This proposal has been raised by Darren Robbins from the DCC.

In February 2019, the DCC noted to the SEC Panel that the method for delivering Planned Maintenance releases was sub-optimum. The Panel agreed to a derogation of existing SEC conditions to allow the DCC to trial a new approach regarding the delivery of Planned Maintenance. The results of the trial were presented to the Operations Group (OPSG) in November 2019 where it agreed the changes were an improvement. The SEC Panel subsequently granted an extension of the derogation for the Planned Maintenance trial to allow for the changes to be made to the SEC.

The new approach focused on how to differentiate between a High or Low Impact maintenance period. In order to fully assess changes and to ensure that the correct maintenance window is selected, the DCC used a Change Risk Calculator. The risk methodology involves core services, customer impact, complexity and downtime. It also amended the timings with which Planned Maintenance was scheduled and implemented.

The DCC confirmed there are no DCC System change costs required to implement this change following the trial. All SEC Parties will be impacted by this modification as the timings for Planned Maintenance will change. As this does not impact DCC Systems, implementation cost is limited to Smart Energy Code Administrator and Secretariat (SECAS) time and effort. If approved, this modification will be implemented in the February 2021 SEC Release. This is a Self-Governance modification.

2. Issue

What are the current arrangements?

In February 2019, the DCC noted to the SEC Panel that the method for delivering Planned Maintenance releases was sub-optimum. As such it wished to move to a risk-based approach to help deliver Planned Maintenance releases more efficiently.

Whilst the SEC is silent on the methodology for scoping Planned Maintenance, it does set out when the Maintenance should occur and the timescales around publishing Maintenance schedules (Sections H8.3 and H8.4).

SEC Section H8.3 sets out that the DCC may only undertake Planned Maintenance between 20.00 hours and 08.00 hours, and that the duration of Planned Maintenance should not exceed six hours in any given month. Furthermore, Section H8.4 states the DCC must provide a schedule of Planned Maintenance at least 20 Working Days prior to the start of each month that the Planned Maintenance is due to occur.

Trial of a proposed new approach to Planned Maintenance

In 2019, the DCC began consideration of a revised approach to managing Planned Maintenance. Part of the new approach required amendments to existing rules of when the DCC was to produce a schedule of Planned Maintenance changes and at what times of day such changes should be

implemented. The DCC therefore requested the Panel grant it a derogation to these rules whilst a six-month trial on the new methodology was carried out.

The Panel agreed to a derogation of existing SEC conditions until November 2019¹ on the condition that the DCC first present an updated Forward Schedule of Change (FSC) to the OPSG and that clarity was provided over some of the terminology used. Following discussions at the OPSG a trial of the new Planned Maintenance approach began on 1 April 2019

Conclusions of the DCC trial

At the October 2019 Panel meeting, the DCC noted the trial was coming to an end and had proved a success, a view supported by feedback at the July 2019 OPSG meeting. The DCC requested an extension to the derogation whilst full results of the trial were presented to the OPSG in October and November 2019² and a resulting Modification Proposal to introduce the new approach could be raised.

The Panel initially granted a further three-month extension until February 2020 whilst the OPSG discussed the results and a modification could be initiated. The SEC Panel then approved the trial period to an enduring period, until such a time where the New Maintenance Methodology was implemented through this SEC Modification³.

In July 2020, the DCC presented to the OPSG the overall strategy and approach of the New Maintenance Methodology measured alongside the objectives (described in Section 3). The DCC also presented the risk calculator used in its methodology to determine whether a change was a High or Low Impact change.

Latest results

In December 2020, the DCC presented further results of the trial to the OPSG measured against the objectives of the new maintenance methodology.

- There has been increased visibility of changes. The DCC provided evidence in February 2019 that there was only 32 changes on the FSC, whereas by 23 November 2020, there was 3,986 changes visible on the FSC.
- There has also been a massive increase in volumes of changes deployed across the DCC network. From July 2019 to July 2020 2,456 changes had been successfully deployed.
- The DCC highlighted that change success rates have been going up consistently since the start of the planned maintenance trial (May 2019).
- The DCC did note changes fail sometimes. 104 failures have occurred since 2019, with 19 of them causing significant impact. This means that more than 80% of failed changes cause minimal or no impact to the Service. This is due to rigorous run-book reviews, checkpoints and challenges. The DCC ensures formal lessons learned and actions are taken to address any changes failures.

Further details can be found in Annex D.

¹ OPSG_26_0511

² SECP_74_1511

³ SECP_76_1701

What is the issue?

The issue is the Planned Maintenance methodology currently set out in the SEC does not differentiate the specific services, nor the business impact of changes. As there is no differentiation between Low or High impacts, this created a lack of inefficiency across maintenance as smaller changes that need to be implemented were not approached as effectively as for larger changes. The lack of differentiation has several impacts:

- Low impact changes are considered in the same way as complex or high-risk changes. For example, downtime on the Self-Service Interface (SSI) is treated in the same manner as Core Communication Services. The business impact and risks associated with these examples are very different.
- Notice periods are the same regardless of overall business impact. This results in unnecessary delays on Low impact, low risk changes.
- The existing lead times also result in significantly extended deployment times on changes. Any alterations to scheduled changes result in significant delays.
- With the specific constraint on downtime and with no differentiation on the impact of change on Users, the result is that very large numbers of changes, both high and low in impact, are implemented in a single change window. This increases complexity and risk, whilst simultaneously constraining the DCC's ability to deliver key changes in a timely manner.
- With a focus on downtime, the result can be that high risk or complex changes where no disruption to the Services is anticipated are not classed as Planned Maintenance and therefore do not get included in the forward schedule of change.

What is the impact this is having?

The impact of not changing the current arrangements is DCC would have to combine all changes into one window, adding unnecessary complexity into the release window. Combining all changes in one window would present inefficiency across DCC processes and wider industry.

Many of the changes included in the Maintenance windows are designed to resolve business and operational issues that impact the overall quality of DCC Services, as well as there being many changes specifically requested by the industry as enablers to their business.

3. Solution

Proposed Solution

The DCC is proposing implementing the new methodology on an enduring basis, to allow more low impact changes to be implemented more of the time and allow more focus on fewer high impact changes.

The aim of these changes are to:

- improve the visibility of changes;

- improve quality of changes;
- improve the throughput of changes aligned to demand;
- maintain focus on limiting downtime on high impact changes; and
- focus on business impact not just downtime.

The solution aims to improve visibility of changes to SEC Parties, improve quality of changes deployed, improve alignment to demand and focus on business impact rather than solely focusing on the amount of downtime. This requires update to the SEC to create the concept of High and Low Impact Maintenance windows and detailing the outage duration associated with each.

DCC Methodology

The new risk-based methodology developed to determine whether the category of the maintenance is High or Low Impact is based on the impact to 'core' services. If a change will impact a core service and thereby restrict a User's ability to send Service Requests it is considered High Impact; if it does not it is considered Low Impact.

This new DCC methodology proposes the introduction of two High Impact and up to six Low Impact Planned Maintenance windows per month. Whilst the Planned Maintenance would continue to take place between 20:00 and 08:00 hours (as per Section H8.3) each Low Impact Planned Maintenance window would have a maximum duration of six hours and High Impact Planned Maintenance would have a total maximum duration of six hours calculated across both windows. High Impact changes would have a minimum lead time of 20 Working Days and Low Impact changes a minimum lead time of 10 Working Days.

Notifying Users of Planned Maintenance

The DCC will continue to publish the schedule of Planned Maintenance (as per Section H8.4) and issue an email notification to all Parties 20 Working Days ahead of the month in which Planned Maintenance will occur. This notification will set out when the scheduled windows are for High Impact and Low Impact changes and provide high level information on what Parties should expect in each window. If additional Low Impact Planned Maintenance windows are required beyond this notice, a revised notice will be issued to Parties.

4. Impacts

This section summarises the impacts that would arise from the implementation of this modification.

SEC Parties

SEC Party Categories impacted			
✓	Large Suppliers	✓	Small Suppliers
✓	Electricity Network Operators	✓	Gas Network Operators

SEC Party Categories impacted			
✓	Other SEC Parties	✓	DCC

While Parties will not be directly impacted in implementing this modification, Maintenance on DCC Systems affects all SEC Parties as above. Whilst the Maintenance affects DCC Systems there are no changes to DCC Systems, only to the maintenance of them and the corresponding downtime. All Parties will be affected by DCC System downtime.

Four of the six respondents to the Refinement Consultation noted that there will be impacts on their organisations. One Large Supplier stated that whilst there are positives in the new methodology, there is still an impact on their organisation by certain systems being down when those changes impact their customers. Another Large Supplier also stated the impact on its business would be consequences to prepayment consumers, consequences to installation and commission and costs to Suppliers.

DCC System

There are no overall impacts on the DCC System in this modification but contract changes with the Communication Service Providers (CSPs) are required.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Section A 'Definitions and Interpretations'
- Section H 'DCC Services'
- Appendix AL 'SMETS1 Transition and Migration Approach Document'

The changes to the SEC required to deliver the proposed solution can be found in Annex A.

Consumers

From a consumer perspective, there is unlikely to be any impact, as this modification still limits consumer impacting changes to one outage window per month.

A Large Supplier in the Refinement Consultation outlined there may be detrimental impact on consumers who have a prepayment meter as they will not have their top up credited to their meter. This runs the risk of added consumer contact or loss of confidence in their smart meter. The DCC responded by stating this is not correct and the outage limit for maintenance which impacts prepayment activities remains at six hours.

The respondent also added concerns of costs to Suppliers to try and manage the ensuing messaging to customers at times of material risk. The DCC responded noting there should be no need to message customers during Low Impact maintenance as smart meter functions will not be impacted.

Other industry Codes

This modification has no impact on other industry Codes.

Greenhouse gas emissions

This modification has no impact on greenhouse gas emissions.

5. Costs

DCC costs

There are no costs on the DCC to implement this modification,

Initially it was believed that this modification would require DCC System changes and a Preliminary Assessment was undertaken. However, upon further investigation and negotiation the DCC confirmed no costs would be incurred and no Impact Assessment required.

More information can be found in the DCC Preliminary Assessment response in Annex B.

SECAS costs

The estimated SECAS costs to implement this modification is two days of effort, amounting to approximately £1,200. The activities needed to be undertaken for this are:

- Updating the SEC and releasing the new version to the industry.

SEC Party costs

Two SEC Parties in the Refinement Consultation stated that there would be costs incurred on their business. One respondent stated that the change posed a risk to consumers with a prepayment meter, specifically in situations where downtime affects the consumer's inability to top up their meter. The SEC Party stated their business would have to manage the consumer's expectations, which may lead to compensating the consumer. No costs were provided from any respondent.

6. Implementation approach

Approach implementation approach

The Panel has agreed an implementation date of:

- **25 February 2021** (February 2021 SEC Release) if a decision to approve is received on or before 11 February 2021; or
- **24 June 2021** (June 2021 SEC Release) if a decision to approve is received after 11 February 2021 but on or before 10 June 2021.

This is a document only change and it has no impact on DCC Systems; it is simply aligning the SEC to the current DCC processes which are being used in the trial. Contractual changes between the

DCC and the CSPs are required, but do not affect the implementation lead time of this modification. The February 2021 SEC Release is the earliest SEC Release this modification could be included in.

7. Assessment of the proposal

Observations on the issue

The DCC presented to the OPSG the final output of the trial. The DCC concluded that the findings had been positive, and the trial had been a success. The DCC believed the new approach should be taken forward on an enduring basis by amending the current SEC provisions.

The Change Sub-Committee (CSC) understood the issue and noted the support for this change from OPSG members.

Solution development

DCC Methodology Development

Initially the DCC developed a new risk-based methodology to determine whether the category of the maintenance was High or Low Impact. This methodology involved multiple factors and assessment of core services, customer impact, complexity and downtime.

The methodology determined High Impact vs Low Impact by assessing:

- **Critical (Core) or non-critical service being impacted**
Core services include anything affecting end-to-end communications between Service Users and Communications Hubs, Installation & Commission activities and previously scheduled Smart Metering Equipment Technical Specifications 1 (SMETS1) migrations.
- **Consumer Impacting or non-consumer impacting**
For instance, resolving issues that are preventing Prepayment or Pay As You Go (PAYG) customers topping up
- **Complex or easy**
High Complexity requires multiple technical teams to implement the change, teams from different organisations and/or changes with no track record (one of a kind). Low complexity are all other changes, including changes with a single supplier and often a single team, a simple repeatable change, or slightly more complex changes that are proven and repeatable.
- **Downtime or no downtime**
Downtime refers to whether the planned maintenance spans less or more than 10 minutes

How the Calculator works

Core Service

Core Services affected were given a score of 4, non-core services a score of 1 (this is referred to as service value in the calculator). Core services included anything affecting end-to-end communications

between Service Users and Communications Hubs, Installation and Commission activities and previously scheduled SMETS1 migrations.

Service	Caluculator	Service	Caluculator
DUIS	4	OI / OT	1
DUIS1	4	SSI	1
DUIS2	4	SSMI	1
DUIS3	4	Remedy	1
Motorway	4	Orchestration	1
SMART M2M	4	Coverage Checker	1
Comms Hub Manager	4		
Security Validator	4		
Share Point	4		
DCO Application	4		

Consumer affecting

Consumer affecting changes were given a score of 10; non-consumer affecting changes a score of 0

Downtime

Changes with a downtime of greater than 10 minutes were given a multiplier of 5; those with a downtime of less than 10 minutes a multiplier of 1

Complexity

High complexity changes were given a multiplier of 5; Low complexity change a multiplier of 2

o High complexity:
• Multiple technical teams required to implement the Change
• Teams from different organisations required to support the Change
• Detailed Changes with no track record (1 of a kind Changes)
o Low complexity:
• All other Changes not attributed to "High Complexity". Examples are:
• Changes contained within a single supplier, typically a single team
• A simple repeatable Change
• Slightly more complex Changes that are proven, repeatable, possibly automated and well-practiced
• Typically, single team implementation

Calculator

The individual variables would be summarised as below:

Core Service	Customer Affecting	Low Complexity	Downtime Greater than (>)10 mins
	4	10 x 2	x 5
None Core Service	None Customer Affecting	High Complexity	Downtime Less than (<)10 mins (caters for Failovers)
	1	0 x 5	x 1

This table shows how a number of different changes may be categorised and their lead times

Service Value	Customer Affecting	Complexity	Downtime	Total Score	Lead time
1	0	2	1	2	10WD
1	0	2	5	10	10WD
1	10	2	1	110	20WD
1	10	2	5	110	20WD
1	10	5	5	110	20WD
4	10	2	1	140	20WD
4	10	5	5	140	20WD

Following feedback from Users the DCC then amended this to a simpler method. Users continued to be concerned with any change that affected their business ability to send end to end communications. Therefore, the DCC changed the methodology to place any changes impacting the core services in a High Impact window, and changes not affecting core services in Low Impact windows. This has been operating for the last six months, and is the Proposed Solution set out in Section 3 above.

Could this change impact Prepayment customers?

One Large Supplier responding to the Refinement Consultation noted that it could not support the Proposed Solution for various reasons that it felt presented risks to consumers. It stated its key concerns were around a lack of rationale for the timing and windows proposed; extending the time allowed for planned maintenance from four hours to six hours (limited only to SSI) all month.

The DCC advised the amount of six hours remains the same for core services outage, and the amount of time allowed for SSI goes from four hours to a potential amount of 36 hours. However, prior to the modification, there has been a large amount of work done to improve the SSI over the trial period which has often used more than six hours per month.

The Large Supplier further presented its concerns that any outage, at any time, impacts prepayment meter customers because they top up at all times of the day and night. The DCC advised that any Low Impact maintenance will not disrupt the ability to perform prepayment top ups because the outage limit for maintenance which impact prepay activities remains at six hours.

The DCC further stated that it considers the risk to be minimal in that the extension is to Low Impact maintenance which does not disrupt the ability to apply top ups.

Another Large Supplier noted that whilst it agreed with the changes implemented in the modification, the commencement of any maintenance that affects DCC User Interface Specification (DUIS) should not be starting at 20:00 as this directly impacts Prepayment customers. The principle of any maintenance is that customer top up impact should be completely avoided. The respondent believed that this is not the case and those involved with implementing the planned maintenance do not consider this as a factor. This change does not mention this as a consideration at all and it should be. The DCC responded advising that whilst it understood the concern, the SEC indicates that Planned Maintenance can be carried out within the hours of 20:00 to 08:00. Changing the hours of maintenance is out of scope for this modification.

Has the impact on Users been considered?

A Large Supplier stated that although there are positives in the new methodology it does not consider User impacts and is focused on the DCC's ability to define impact. There is still an impact on its business by certain systems being down when those changes impact its customers. The DCC responded by stating the rationale behind creating High and Low Impact windows is directly based on User impact. High Impact maintenance impacts core services which have maximum User impact and this is why there is no increase on the six hours currently allowed by the SEC. The DCC recognises that Low Impact maintenance does also impact Users but has taken this approach in order to de-risk the activities that impact "core" services and to allow it to put through the necessary volume of changes. The DCC believes that not being able to implement change, because of lack of hours, would ultimately have a far greater impact on Users.

A Network Party also considered that there needs to be a mechanism for the DCC to capture within the Performance Measurement Report (PMR) any instances of Low Impact Maintenance which unexpectedly results in disruption of end-to-end communications between Users and Communication Hubs. The DCC responded advising this is out of scope for this modification. However, this could be considered as a change to the PMR in another modification.

How much notice would Users receive of Unplanned Maintenance?

One Working Group member queried Unplanned Maintenance and how much notice Users would receive in these cases. The DCC confirmed that it would set out the planned maintenance at the beginning of the year. Any additional maintenance would be considered 'unplanned' and there could be as much as two months' notice for this, although there would be a minimum of 10 days' notice. The only exception would be where unplanned maintenance was an emergency. In a true event of an emergency, there is no minimum lead time as such, however, this is dependent on the scenario. In the event of an emergency incident fix then a change can even be raised retrospectively, however, Service Users would be informed by a major incident management communication.

A question was also raised about consumer impacts, for instance anything that might affect Prepayment top ups and what monitoring would happen. The DCC stated that this would be monitored by the Technical Operations Centre (TOC) as part of its Business as Usual monitoring and reporting. In addition, maintenance that may affect consumers would be carried out where possible between 20:00 and 02:00 to reduce consumer impacts.

Legal text comments

A Refinement Consultation respondent noted the need for a minor clarification in the legal text. Their recommendation was that 'either direction' be added after '*Users and Communications Hub*' under the definition of Planned Maintenance in SEC Section A 'Definitions and Interpretations' for greater clarity. The Proposer agreed to the minor clarification to the legal text, and the updated description of 'High Impact Planned Maintenance' within the definition for 'Planned Maintenance' now reads:

- a) *High Impact Planned Maintenance where one or more of the following is disrupted;*
 - i. *end-to-end communications between Users and Communications Hubs in either direction;*
 - ii. *install & commission activities; or*
 - iii. *previously scheduled SMETS1 migrations.*

Another respondent also recommended that the removed clause of 'or poses a Material Risk of disruption to', not to be removed from the legal text.

Planned Maintenance: *means, in respect of a month, Maintenance of the DCC Systems planned prior to the start of that month which will disrupt, or poses a Material Risk of disruption to, the provision of these services ...*

The Proposer agreed that the definition should remain in the legal text, and this removed text has now been reinstated.

Are changes needed to Service Provider contracts?

The DCC initially believed that contractual changes would be required to fully deliver the solution, and a Preliminary Assessment was requested in November 2019 to assess this. The DCC's response was not provided until June 2020.

Following discussions with the Working Group in July 2020, SECAS asked the DCC to confirm whether contractual changes were needed and, if so, whether an Impact Assessment was required to determine the costs of this. The DCC was not able to confirm this until November 2020, when it informed SECAS that any contractual changes required would not require associated costs to the industry to deliver MP092 and so no Impact Assessment was required. Following this, SECAS was able to present the Modification Report to the Panel.

Support for Change

The OPSG has been supportive of this change following the success reported by DCC during the derogation period. The Working Group was also supportive of this change following discussion of the solution and results of the trial period.

Six Parties responded to the Refinement Consultation: three Large Suppliers, one Small Supplier and two Network Parties. Five of the six respondents agreed with the Proposed Solution. One of the Large Suppliers did not agree due to its concerns noted above over the potential impact of this modification on consumers and in particular Prepayment customers.

One respondent noted that the Proposed Solution makes it easier for the DCC to manage maintenance releases and believed there would be less chance of service disruption to Users. The other respondents generally agreed with the solution overall and stated that it is an efficient improvement on the current arrangements around Planned Maintenance.

One Large Supplier had several concerns regarding the progression of the modification and required further clarity from the DCC. SECAS facilitated discussion between the DCC and the Supplier to clarify all the issues. The Large Supplier confirmed that all its concerns had been adequately addressed.

The Panel agreed to progress this modification to report phase on the understanding that the Operations Sub-Group would monitor the installation of these Communications Hubs and the upgrading of the firmware by DCC to ensure no compatibility issues arise and that firmware upgrades by the DCC take place in a timely fashion after installation.

Views against the General SEC Objectives

Proposer's views

The Proposer believes this modification will better facilitate SEC Objective (b)⁴ as the new Planned Maintenance methodology allows the DCC to better meet its licence obligations.

Industry views

Five of the six Refinement Consultation respondents agreed with the Proposer that this modification better facilitates SEC Objective (b) as it helps DCC to better meet its obligations and prioritise planned maintenance.

The other respondent disagreed that this modification better facilitates SEC Objective (b) as to work efficiently, the DCC should strive towards reducing downtime rather than changing its legal obligation of providing a reliable interface. The DCC responded noting it believe this modification will help plan and carry out maintenance more effectively, and that maintenance is required to keep the DCC Total System running efficiently.

Views against the consumer areas

This modification will provide benefits to consumers as the new maintenance methodology seeks to reduce maintenance downtime.

Improved safety and reliability

Refinement Consultation respondents were concerned that the modification did not address the impacts on consumers effectively. SECAS, in discussion with the DCC, was able to clarify that great consideration was given to the impacts on consumers under the trial period, and that the modification will have a neutral impact regarding reliability for consumers, as the modification presents no additional impacts to current arrangement around Planned Maintenance

Lower bills than would otherwise be the case

A Large Supplier also stated in the Refinement Consultation that the inability for prepay consumers to top up their prepayment meter due to downtime could lead to a negative impact on bills. The DCC was able to also address this concern directly with the Large Supplier and this has been recorded in the discussion section above.

Reduced environmental damage

This modification has no impact in reducing environmental damage.

⁴ Enable the DCC to comply at all times with the objectives of the DCC licence and to discharge the other obligations imposed upon it by the DCC licence.

Improved quality of service

This modification could indirectly positively impact on improved quality of service by better ensuring the maintenance needed to keep the DCC infrastructure running efficiently can be efficiently scheduled.

Benefits for society as a whole

This modification has no impact on society as a whole.

Appendix 1: Progression timetable

This Modification will be presented to the SEC Panel on 11 December 2020. Once approved, a Modification Report Consultation will be issued.

Timetable	
Event/Action	Date
Draft Proposal raised	22 Oct 2019
Presented to CSC for decision	29 Oct 2019
Panel converts Draft Proposal to Modification Proposal	15 Nov 2019
Preliminary Assessment requested	18 Nov 2019
Preliminary Assessment returned	5 Jun 2020
Modification discussed with Working Group	1 Jul 2020
Refinement Consultation	20 Jul 2020 – 7 Aug 2020
SECAS asks DCC if Impact Assessment is required	4 Aug 2020
DCC confirmed no Impact Assessment is required	6 Nov 2020
Modification Report presented to Panel	11 Dec 2020
Modification Report Consultation	14 Dec 2020 – 8 Jan 2021
Change Board vote	20 Jan 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
DUIS	DCC User Interface Specification
FSC	Forward Schedule of Change

Glossary	
Acronym	Full term
OPSG	Operations Group Sub-Committee
PAYG	Pay As You Go
PMR	Performance Measurement Report
SSI	Self-Service Interface
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SMETS1	Smart Metering Equipment Technical Specifications 1
TOC	Technical Operations Centre
WD	Working Day

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MP092 ‘New Planned Maintenance methodology’

Annex A

Legal text – version 1.0

About this document

This document contains the redlined changes to the SEC that would be required to deliver this Modification Proposal.

Section A ‘Definitions and Interpretation’

These changes have been redlined against Section A version 9.0.

Amend Section A as follows:

Planned Maintenance	<p>means, in respect of a month, Maintenance of the DCC Systems planned prior to the start of that month <u>which will disrupt or poses a Material Risk of disruption to the provision of the services described in a) and b) below (and, where it will disrupt, or poses a Material Risk of disruption to, the provision of these services in relation to Devices associated with Communications Hubs, at least 100,000 Communications Hubs are affected).</u> and which will disrupt, or poses a Material Risk of disruption to, provision of the Services.</p> <p>Planned Maintenance shall be categorised as:</p> <ul style="list-style-type: none"> a) <u>High Impact Planned Maintenance where one or more of the following is disrupted:</u> <ul style="list-style-type: none"> i. <u>end-to-end communications between Users and Communications Hubs in either direction;</u> ii. <u>install & commission activities; or</u> iii. <u>previously scheduled SMETS1 migrations.</u> a)b) <u>Low Impact Planned Maintenance which will disrupt or poses a Material Risk of disruption to the provision of services, excluding those services set out in High Impact Planned Maintenance, and will not require changes to be made by Users except in cases where Service Improvements are being made to the SSL. (and, where it will disrupt, or poses a Material Risk of disruption to, the provision of the Services in relation to Devices associated with Communications Hubs, at least 100,000 Communications Hubs are affected).</u>
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Section H 'DCC Services'

These changes have been redlined against Section H version 9.0.

Amend Section H8 as follows:

H8. SERVICE MANAGEMENT, SELF-SERVICE INTERFACE AND SERVICE DESK

General

H8.1 The DCC shall provide the Services in a manner that is consistent with:

- (a) the Service Management Standards; or
- (b) any other methodology for service management identified by the DCC as being more cost efficient than the Service Management Standards, and which has been approved by the Panel for such purpose.

Maintenance of the DCC Systems

H8.2 The DCC shall (insofar as is reasonably practicable) undertake Maintenance of the DCC Systems in such a way as to avoid any disruption to the provision of the Services (or any part of them).

H8.3 Without prejudice to the generality of Section H8.2, the DCC shall (unless the Panel agrees otherwise and subject to any contrary provisions in the SEC Subsidiary Documents applying in relation to the SMETS1 SM WAN and/or the Systems of the SMETS1 Service Providers):

(a) categorise Planned Maintenance changes into Low Impact Planned Maintenance or High Impact Planned Maintenance;

(a)(b) undertake Planned Maintenance of the DCC Systems only between 20.00 hours and 08.00 hours;

(b)(c) limit Planned Maintenance of the Self-Service Interface to no more than four hours in any month; limit High Impact Planned Maintenance of the DCC Systems generally to two windows which have a maximum total duration of six hours per month; and

(c)(d) limit Low Impact Planned Maintenance of the DCC Systems generally (including of the Self-Service Interface) to six windows per month of no more than six hours- each in any month.

H8.4 At least 20 Working Days prior to the start of each month, the DCC shall make available to Parties, to Registration Data Providers and to the Technical Architecture and Business Architecture Sub-Committee a schedule of the Planned Maintenance for that month (subject to any contrary provisions in the SEC Subsidiary Documents applying in relation to the SMETS1 SM WAN and/or the Systems of the SMETS1 Service Providers). Such schedule shall set out (as a minimum) the following:

- (a) the proposed Maintenance activity (in reasonable detail);

- (b) the parts of the Services that will be disrupted (or in respect of which there is a Material Risk of disruption) during each such Maintenance activity;
- (c) the time and duration of each such Maintenance activity; and
- (d) any associated risk that may subsequently affect the return of normal Services.

H8.4A Where an additional Planned Maintenance is required beyond that set out pursuant to Section H8.4, the DCC shall revise and reissue the schedule of Planned Maintenance:

(a) at least 10 Working Days in advance of any additional Low Impact Planned Maintenance;
and

(b) at least 20 Working Days in advance of any additional High impact Planned Maintenance.

- H8.5 The Panel may (whether or not at the request of a Party and subject to any contrary provisions in the SEC Subsidiary Documents applying in relation to the SMETS1 SM WAN and/or the Systems of the SMETS1 Service Providers) request that the DCC reschedules any Planned Maintenance set out in a monthly schedule provided pursuant to Section H8.4. In making any such request, the Panel shall provide the reasons for such request to the DCC in support of the request. The DCC will take all reasonable steps to accommodate any such request.
- H8.6 As soon as reasonably practicable after the DCC becomes aware of any Unplanned Maintenance, the DCC shall notify the Technical Architecture and Business Architecture Sub-Committee, Parties and (insofar as they are likely to be affected by such Unplanned Maintenance) Registration Data Providers of such Unplanned Maintenance (and shall provide information equivalent to that provided in respect of Planned Maintenance pursuant to Section H8.4).
- H8.7 During the period of any Planned Maintenance or Unplanned Maintenance, the DCC shall provide Parties and (insofar as they are likely to be affected by such maintenance) Registration Data Providers with details of its duration and the expected disruption to Services to the extent they differ from the information previously provided.

Appendix AL ‘SMETS1 Transition and Migration Approach Document’

These changes have been redlined against Appendix AL version 5.0.

Amend Appendix AL Section 3.1 (c) as follows:

(c) the definition of “Planned Maintenance” shall be replaced with the following:

Planned Maintenance	means, in respect of a month, Maintenance of the DCC Systems planned prior to the start of that month or, in the case of DCC Migration Systems, planned 10 Working Days prior to the start of the Maintenance, and which will disrupt, or poses a Material Risk of disruption to, <u>the</u> provision of the <u>Services</u> . (and, where it will disrupt, or poses a Material Risk of disruption to, the provision of the Services in relation to Devices associated with Communications Hubs, at least 100,000 Communications Hubs are affected).
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SEC Modification Proposal, SECMP0092, DCC CR1268

Planned Maintenance Methodology

Preliminary Impact Assessment (PIA)

Version:	0.5
Date:	25th November, 2020
Author:	DCC
Classification:	DCC Public

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1 Document History

1.1 Revision History

Revision Date	Revision	Summary of Changes
01/06/2020	0.1	Initial version, internal DCC review
05/06/2020	0.25	Completed internal DCC review
25/11/2020	0.5	Revised costs to a zero cost, zero impact change

1.2 Associated Documents

This document is associated with the following documents:

Ref	Title and Originator's Reference	Source	Issue Date
1	MP092 PA request form - DCC	SECAS	25/11/2019

References are shown in this format, [1].

1.3 Document Information

The Proposer for this Modification is Chris Thompson from DCC. The original proposal was submitted on 22nd October 2019.

The Preliminary Impact Assessment was requested of DCC on 2nd December 2019 and was submitted on 5th June 2020. Subsequent discussions between DCC and the Service Providers identified that there were no charges required or a Full Impact Assessment, related to this Modification.

The Business Requirements are included from document [1].

2 Context and Requirements

In this section, the context of the Modification, assumptions, and the requirements are stated.

The context, and issue statement, and requirements following have been provided by SECAS and the Proposer.

2.1 Context

In April 2019 the DCC began a trial of a new approach regarding the delivery of Planned Maintenance. The new approach sought to categorise planned changes as either low or high impact, based upon a risk-based methodology. It also amended the timings with which Planned Maintenance was scheduled and implemented.

Whilst the SEC is silent on the methodology for scoping Planned Maintenance, it does set out when the Maintenance should occur and the timescales around publishing Maintenance schedules (Sections H8.3 and H8.4). In order to trial the new approach, the SEC Panel granted the DCC a derogation against these provisions for six months (later extending for a further three months until February 2020). The Panel requested the DCC report on progress to the Operations Group.

In July, the DCC reported the trial had been a success and, following a final report to the Operations Group, raised a Modification Proposal to formalise the new approach.

2.2 Business Requirements for this Modification

This section contains the definitions, considerations and assumptions for each business requirement as provided by the Proposer and SECAS.

1.	DCC proposes that Planned Maintenance will be categorised into two types, ('a' and 'b') below so that the impact to Users can be appropriately managed: <ul style="list-style-type: none"> a. Low Impact Planned Maintenance changes b. High Impact Planned Maintenance changes
2.	DCC proposes the introduction of up to two High Impact and up to six Low Impact Planned Maintenance windows per month.
3.	DCC proposes that High Impact Planned Maintenance will have a total maximum duration of 6 hours calculated across both windows. Each Low Impact Planned Maintenance window will have a maximum duration of 6 hours.
4.	Planned Maintenance will continue to take place between 20:00 and 08:00 hours (as per Section H8.3).
5.	DCC will continue to publish the schedule of Planned Maintenance (as per Section H8.4) and issue an email notification to all Parties 20 Working Days ahead of the month in which Planned Maintenance will occur. This notification will set out when the scheduled windows are for High Impact and Low Impact changes and provide high level information on what Parties should expect in each window.

6.	If additional Low Impact Planned Maintenance windows are required beyond this notice, a revised notice will be issued to Parties.
7.	High Impact changes will have a minimum lead time of 20 Working Days and Low Impact changes a minimum lead time of 10 Working Days.
8.	The SEC will be updated to create the concept of High and Low Impact Maintenance windows and detailing the outage duration associated with each.
9.	<p>High Impact Planned Maintenance changes mean that one or more of the following is disrupted:</p> <ul style="list-style-type: none"> • End-to-end communications between Service Users and Comms Hubs • Install & Commission activities • Previously scheduled SMETS1 migrations
10.	Low Impact changes will not disrupt any of the activities described in point 9 and will not require changes to be made by Users except in cases where Service Improvements are being made to SSI.

3 Description of Impacts and Solution

3.1 DSP Impact

DSP assumes that the High Impact total duration of six hours per month and the Low Impact duration of six hours per event is for DSP only and is NOT shared between other SPs.

The DSP PIT team already carries out a number of Low Impact deployments a month which fit within the Low Impact duration.

No impacts on Security and Infrastructure are anticipated.

In terms of Service Impact, the only activity currently defined as High Impact Planned Maintenance is a major deployment. The Application Management team currently implements one major deployment a month, which fits within one High Impact Planned Maintenance six hour duration. It would not be possible to fit a second major deployment into the six hour duration allocated for High Impact Maintenance for a single month.

Whilst there is overall no impact on DSP of the High and Low impact durations and windows, this Modification does not impose time restrictions on the times of day and night when the changes can be made that are not already present in SEC and, indeed, in their contract. For the avoidance of doubt, DSP does not intend to change its contract with DCC in order to fully accommodate this Modification.

3.2 CSP North Impact

CSP North identified that there may be impacts on their Service and Operations teams. This may require changes to the following Contract Schedules:

- Schedule 1 – Definitions
- Schedule 2.1 - DCC Requirements
- Schedule 2.2 - Performance Measures
- Schedule 6.1 - Implementation Planning
- Schedule 7.1 - Charges and Payment

Schedule 2.2, under appendix 5 Outline Performance Monitoring Approach, Section 2, the DSMS is expected to be the data source for the calculation of PM10 (Planned Maintenance). Post implementation of this Modification the calculation of PM10 will need to take the category of Planned Maintenance into consideration as the requirements and Performance Measures will differ between the 'low' and 'high' cases. The DSMS as the source of the data for PM10 will need to be modified to collect and provide the category type for each Planned Maintenance request.

3.3 CSP South and Central

CSP South and Central have identified the following changes to the following Contract Schedules:

- Uplift Schedule 6.2 to reflect the proposed new Planned Maintenance Release rules

- Uplift Part F of Schedule 1 or 6.2 (Testing and Acceptance) to include the definition of having up to two (2) High Impact and up to six (6) Low impact Planned Maintenance windows per month.
- Uplift Part F 1 or Schedule 6.2 to include that High Impact Planned Maintenance will have a total maximum duration of six (6) hours calculated over both windows. Each Low impact Planned Maintenance window will have maximum duration of six (6) hours. (This means a total of up to forty-two (42) hours)
- Uplift Schedule 6.2 to include that Telefónica will comply to Planned Maintenance schedule which is 20:00 and 08:00 hours
- Uplift Schedule 6.2 to include that High Impact changes will have a minimum lead time of twenty (20) working days and Low impact changes a minimum lead time of ten (10) working days.

Several items for CSP South and Central have been listed in the Risks, Assumptions, Issues, and Dependencies listed in section 5 following.

3.4 Cap Gemini

Provided the assumptions outlined in section 7 are valid, then this change will have no measurable or chargeable impact to Capgemini's services.

4 Costs and Charges

The table below details the cost of delivering the changes and Services required to implement this Modification Proposal.

The Rough Order of Magnitude cost (ROM) shown below typically describes indicative costs to implement the functional requirements as assumed above. In the case of this Modification. As a result the final price may result in a variation.

4.1 Design, Build, and Testing Cost Impact

There is no overall impact to the DSP, and neither a FIA nor any charges will be incurred.

In the case of CSP North as well as CSP South and Central; there are no anticipated changes in terms of Design, Build, and PIT Test. Contract changes are not in the scope of this Modification, and will be negotiated separately by the CSPs and DCC.

£	Design, Build and Test
Planned Maintenance Methodology	£0

Based on the existing requirements, the Service Providers have agreed there is no change or charge required, and therefore, no Full Impact Assessment.

5 Risks, Assumptions, Issues, and Dependencies

In the following sections, Risks, Assumptions, Issues, and Dependencies have been identified.

It is possible that further RAID will be established as part of the Working Group reviews and the FIA.

5.1 Risks

No risks related to this Modification have been noted.

5.2 Assumptions

Ref.	Area	Description	Accept
MP92-AD01	High Impact Duration	The High Impact total duration of six hours per month and the Low Impact duration of six hours per event reflect the time available to DSP and are NOT totals shared between DSP and other SPs.	Accepted
MP92-AC02	Downtime	Capgemini assumes this Modification correlates to downtime, i.e., any change that requires an element of downtime to the Dual Control Organization (DCO) application will be categorised as a High Impact change, and any changes that do not require downtime will be categorised as low impact or standard changes. Any changes would only be high impact if they directly impacted previously scheduled (SMETS1) migrations.	Accepted
MP92-AC03	Environments	Capgemini assumes this change request is only relevant to production environments. Therefore UIT, SIT and other Dev/Test environments are not impacted by this change request.	Accepted
MP92-AC04	Release Management	Capgemini assumes that the Service Integrator processes for release management as well as the DCC Change management process are all aligned to this change.	Accepted
MP92-AT05	Environments	CSP South and Central will continue to manage their environment and adhere to internal governance to ensure the right amount of rigour to protect our services.	Accepted
MP92-AT06	Disruption	Assume that Low Impact changes will not disrupt any of the activities described in MP92-AT06 and will not require changes to be made by Users except in cases where Service Improvements are being made to SSI.	Accepted
MP92-AT07	SLAs	Requirements and changes detailed in this Modification will not impact the current agreed SLA and performance measures	Accepted
MP92-AT08	Slots	When a slot is removed due to SPP's or other activity, new slots must be considered for each Service Provider to ensure they can maintain service, avoid delays to critical downstream deployments etc. In this instance CSP South and Central assumes that DCC will agree another slot. This may require a further Project Request or Change request.	Accepted
MP92-AT09	Vendor Contracts	CSP South and Central assume that there is no uplift to our existing vendor contract with our suppliers. At any case this assumption is not correct and discovered during the IA stage, Telefónica reserves the right to include cost in our IA response	Accepted

MP92-AT10	Future Ownership	CSP South and Central assumes that DCC will continue to own and manage the Planned Maintenance Release methodology. Any changes to this document must be shared. CSP South and Central may require DCC to provide a Project Request or a Change request in order to manage this new requirement. CSP South and Central also reserves the right to review its solution and the charges associated with the Planned Maintenance Release methodology.	Accepted
MP92-AT11		CSP South and Central assumes that all the resource uplifts to support the following will be covered under a separate DCC CR: 1) Replicating changes into DSMS 2) New or additional reporting requirements in relation to the Forward Schedule.	Accepted

5.3 Issues

No risks related to this Modification have been noted.

5.4 Dependencies

Note that the following dependencies are understood by DCC and accepted,

Ref.	Organisation	Description	Recommended action
MP92-DT1	DCC	CSP South and Central are dependent on DCC in providing a forward view of change slots for a rolling 18-month period.	DCC to Identify all High slots in the agreed period.
MP92-DT2	DCC	To help all parties plan changes for the future, DCC to define the forecasting process and timelines at IA stage	To be covered in legal text
MP92-DT3	DCC, CSP South and Central	Based on a series of meetings with DCC regarding the ambiguity of the framework supplied by this Modification it was agreed that DCC and CSP South and Central will work together on a supplementary document that will allow each party to assess change in a much more accurate manner. This supplementary documentation must be in place before the FIA can be completed. This document must stay aligned with the Planned Maintenance Release methodology document at all times.	Closed. CSP South and Central have agreed that no charges will be associated with this change, and that the FIA will not be required.
MP92-DA4	DCC	All SPs are dependent on DCC to continue to publish the schedule of Planned Maintenance and issue an email notification to all Parties twenty (20) working days ahead of the month in which Planned Maintenance will occur. This notification will set out when the scheduled windows are for High and Low impact changes and provide high level information on what Parties should expect in each window.	Continue existing process
MP92-DA5	DCC	DCC to inform all SPs when any additional Low Impact Planned Maintenance windows are required beyond the agreed notice of ten	Continue existing process

		(10) days, a revised notice will be issued to Parties.	
MP92-DT6	DCC	CSP South and Central are dependent on the DCC to update SEC to create the concept of high and low impact maintenance windows and detailing the outage duration associated with each. Contract changes made as a result of this Modification will be misaligned with SEC until SEC has agreed and know the concept of high and low impact maintenance windows	Close. Is part of this Modification
MP92-DT7	DCC	<p>DCC to lead discussion and agree commercial vehicle to cover additional requirements which have resulted in resource uplifts with no commercial vehicle to date. DCC have requested CSP South and Central to remove these in scope items from this Modification and have confirmed DCC will facilitate discussion for a separate change to cover the below items which CSP South and Central is currently incurring cost for:</p> <ul style="list-style-type: none"> - Uplift resource profile to support the replication of CSP South and Central Smart Metering Operational changes onto DSMS that has been providing the DCC Change Management team the visibility of all changes that will impact or have the potential to impact the smart metering service. <p>This will help DCC meet the ISO accreditation standards which requires 'segregation of duties' as DCC change management no longer raise and approve the same change.</p>	Close. While CSP South and Central have absorbed this cost to date and have been requesting for DCC-L to raise a Change Request to cover this work. CSP South and Central have indicated no charges associated with this Modification will be applied.

Appendix A: Glossary

The table below provides definitions of the terms used in this document.

Acronym	Definition
DCC	Data Communications Company
DCO	Dual Control Organisation (Capgemini)
DSP	Data Service Provider
FIA	Full Impact Assessment
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
ROM	Rough Order of Magnitude (cost)
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SP	Service Provider
SR	Service Request
SRV	Service Request Variant
UIT	User Integration Testing

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MP092 ‘New Planned Maintenance methodology’

Annex C

Refinement Consultation responses

About this document

This document contains the full collated responses received to the MP092 Refinement Consultation.

Question 1: Do you agree with the solution put forward?

Question 1				
Respondent	Category	Response	Rationale	DCC Response
Electricity North West Limited	Network Party	Yes	<p>We agree the solution put forward subject to modified. Generally, speaking this modification should make it easier for the DCC to manage maintenance releases and mean less chance of service disruption to users. The Legal Text should clarify that planned maintenance should not impact end-to-end communications between Users and Devices – in either direction.</p> <p>Current legal text:</p> <p>a) High Impact Planned Maintenance where one or more of the following is disrupted;</p> <p>i. end-to-end communications between Users and Communications Hubs;</p> <p>ii. install & commission activities; or</p> <p>iii. previously scheduled SMETS1 migrations.</p> <p>Our proposed modified legal text underlined below would be:</p> <p>a) High Impact Planned Maintenance where one or more of the following is disrupted;</p> <p>i. end-to-end communications between Users and Communications Hubs in either direction;</p>	<p>This has now been added to the legal text</p>

Question 1				
Respondent	Category	Response	Rationale	DCC Response
			<p>ii. install & commission activities; or</p> <p>iii. previously scheduled SMETS1 migrations.</p> <p>We would also suggest that there needs to be a mechanism for DCC to capture within the Performance Measurement Report (PMR) any instances of Low Impact Maintenance which unexpectedly results in disruption of end-to-end communications between Users and Communication Hub</p>	
Symbio Energy Ltd.	Small Supplier	Yes	Symbio Energy is fine with methodology for Planned Maintenance	
Western Power Distribution	Network Party	Yes	We agree with the proposed solution.	
Utilita	Large Supplier	No	<p>Utilita cannot support MP092 as a proposed solution. Utilita is predominantly a prepay supplier, and therefore cannot support a mod that carries a significant risk of restricting our customers' ability to top up their meters when needed. Although we understand the intention of introducing 'Low' and 'High' maintenance categories to illustrate the type of impact to services, we cannot agree with the proposed legal text changes in Section A 'Planned Maintenance' and H8.3 c and d, for the following reasons:</p> <p>1. Timing and windows proposed:</p>	<ul style="list-style-type: none"> The amount of 6 hours remains the same for "core" services outage. The amount of time allowed for SSI actually goes from 4 hours to a potential amount of 36 hours. However, even before this Modification was raised there has been a large amount of work done to improve SSI over the last two years which

Question 1				
Respondent	Category	Response	Rationale	DCC Response
			<p>- There is no clear rationale for extending the time allowed for planned maintenance by such a significant amount from 4 hrs (limited only to SSI) to 6hrs/month for all High Impact Maintenance = 50% increase; and other Maintenance from 6 hrs/month to Low Impact Maintenance 6 windows/month max 6 hrs each = 36 hours = 500% increase). In total, maximum of 6 hours rises to 42 hours. The trial outcomes do not clearly show the justification for such a significant increase in time allowed.</p> <p>- As a DCC user we want to see less outages. Any outage, at any time impacts prepay customers because they top up at all times of the day and night. This proposal is directly contrary to the desired direction of travel.</p> <p>2. Consequences of extending maintenance windows/timing on the associated costs of running DCC systems, i.e. compensation for downtime for DCC Users:</p> <p>- More downtime (planned and unplanned) will mean that there is increased risk of customers (potentially vulnerable) being unable to top up during these times, among other important activities.</p> <p>- Changing the legal text to allow for an increase in both the hours and windows of planned maintenance leaves our prepay customers exposed to additional risks of going off supply. This proposal could increase the risk of customers being affect by system</p>	<p>has often used more than 6 hours per month.</p> <ul style="list-style-type: none"> DCC believe that they do and SEC Ops Group agrees. DCC can provide the supporting material if required. <p>2.</p> <ul style="list-style-type: none"> DCC disagreed that any outage would affect prepayment customers at all times. This is because any low impact maintenance will not disrupt the ability to perform pre-pay top ups. The outage in this area remains at 6 hours. The extension applies to low impact, i.e. non-core, systems only. The risk is minimal in that the extension is to low impact maintenance which does not

Question 1				
Respondent	Category	Response	Rationale	DCC Response
			<p>downtime by a factor of 5 compared to pre-trial (current) windows/timings provided for under the SEC.</p> <p>- This proposal is going to have direct costs of managing consumer expectations and how “smart” their smart meter is. These costs are entirely borne by the supplier. This change is not equitable in it’s solution.</p> <p>3. Current drafting lacks transparency around the potential for disruptions of Low Impact Maintenance:</p> <p>- Although the legal text indicates low risk of disruption, SEC parties should be made aware of any potential risk of disruption associated with Low Impact Maintenance. We are given a notice period of 10 days for Low Impact Maintenance; from our perspective this is an indication that disruption is still possible. Therefore, a protocol should be included in the legal text, applicable in the case of system disruption caused by Low Impact Maintenance. The protocol must tell suppliers what type of disruption is to be expected.</p> <p>- The whole phrase ‘which will disrupt or poses a Material Risk of disruption’ must remain within the definition of Planned Maintenance. Removing the ‘or poses a Material Risk of disruption’ part as is proposed means that any maintenance which does not for certain “disrupt” the Services will be, by default, classified as Unplanned Maintenance. The text needs to cover the scenario where there is Planned Maintenance but with a risk (not certainty) of disruption.</p>	<p>disrupt the ability to apply top ups</p> <ul style="list-style-type: none"> The risk is minimal in that the extension is to low impact maintenance which does not disrupt the ability to apply top ups DCC stated they would like to see this evidence. Low impact maintenance will not disrupt smart meter functions. <p>3.</p> <ul style="list-style-type: none"> DCC have defined low impact by saying it could impact anything non-core. It would be extremely difficult to define all non-core components of the system and it would always be subject to change in any case This is only in cases where additional Low Impact windows are required in a month. In most cases a notice of 20 working days ahead of the month in

Managed by

Question 1				
Respondent	Category	Response	Rationale	DCC Response
			<p>4. Current drafting lacks a mechanism for DCC Users to challenge the DCC assumption of Low or High Impact:</p> <p>- We would like to see and understand how DCC defines success in recent trials of the Low/High Impact classification, especially conducted over the last few months. While there has been a report on the successes of the trial, we note this was conducted in 2019. There will inevitably continue to be increasing Maintenance (driven via various routes such as an increase in traffic). As such, while the report contents are useful, there needs to be a review of the successes in light of the changes in landscape. This should be included in the PA for SEC parties, so that we can fully assess if DCC's success measures agree with the views of DCC Users. Answers around the timing and windows for High and Low impact maintenance should be compared with information prior to the trial. Have these trials stayed within the windows as proposed in this mod?</p> <p>Therefore, until it is clear what the benefits for customers and SEC Parties are, we suggest this mod progresses no further.</p>	<p>which maintenance is happening will be provided</p> <ul style="list-style-type: none"> DCC believe this is already covered. It says DCC gives (as we do now) notice of Planned Maintenance 20 working days ahead of the month in which maintenance is occurring and the definition of Planned Maintenance has been changed to cover both high and low impact DCC understood the concern of the legal text. DCC proposed that the clause should be left in and DCC continue to operate as currently. <p>4.</p> <ul style="list-style-type: none"> The Modification specifies what may be impacted by High Impact maintenance (e2e comms, I&C or migrations). Low Impact is anything else. All of the maintenance windows are on the

Question 1				
Respondent	Category	Response	Rationale	DCC Response
				<p>Forward Schedule of Change on SSI where Users can see what changes and releases are included in which window. If Users think something classed as Low should be High then they can contact DCC. We believe Users already have the means to challenge DCC without adding a further, formal process into the SEC.</p> <ul style="list-style-type: none"> • DCC has provided this information in Annex D. • DCC confirmed timings are the same
OVO	Large Supplier	Yes	Although we agree with the changes being implemented and have been involved in the trail that has been ongoing, we would like to flag that commencing any maintenance that affects DUIS should not be starting at 20.00 as this directly impacts Prepayment customers. This	DCC stated 'The SEC indicates that Planned Maintenance can be carried out within the hours of 2000 to 0800.

Question 1				
Respondent	Category	Response	Rationale	DCC Response
			<p>has been notified to the DCC on numerous occasions and the principle of any maintenance is Customer top up impact should be completely avoided. This is not the case and those involved with implementing the planned maintenance do not consider this as a factor. This change does not mention this as a consideration at all and it should be. The manner of the solution is not the issue though.</p> <p>High Impact reflects end to end communications between Service Users and CHs. It does not factor the customer that may be making those communications and the purpose. So the continued commencement at 20.00 is 'sub optimum' to our customers.</p>	Changing the hours of maintenance is out of scope for this Modification'.
EDF	Large Supplier	Yes	We agree with the proposed solution. It sets out a more nuanced approach to Planned Maintenance which is more appropriate than the current arrangements set out in the SEC, as proven by the trial of the proposed new process.	

Question 2: Will there be any impact on your organisation to implement MP092?

Question 2				
Respondent	Category	Response	Rationale	DCC Response
Electricity North West Limited	Network Party	No comment	No comment	
Symbio Energy Ltd.	Small Supplier	No	-	
Western Power Distribution	Network Party	Yes	We will have a consistent and clear understanding of the types and times of maintenance that the DCC will undertake and will be better able to manage our systems and processes accordingly.	
Utilita	Large Supplier	Yes	<p>As mentioned in Question 1:</p> <p>Implementing MP092 will have further impacts:</p> <ol style="list-style-type: none"> Consequences to prepay consumers topping up, e.g. lack of top up capability during the Maintenance windows. This has a detrimental impact on prepay customers who will not have their top up credited to their meter. This runs the risk of customer contact or loss of confidence in their smart meter. Costs to suppliers to try and manage the ensuing messaging to customers at times of material risk, potentially on a 6-times a month basis when their meters will not be smart. This is made more difficult because DCC does not provide effective transparency of the likely risk or the level of disruption. Constantly having to message will have negative reputational, monetary, and logistical impacts on our business. 	<p>1. This is not correct. The outage limit for maintenance which impact prepay activities remains at 6 hours</p> <p>2. There should be no need to message customers during low impact maintenance as smart meter functions will not be impacted.</p>

Question 2				
Respondent	Category	Response	Rationale	DCC Response
			3. Consequences to installation and commission process – which also can have negative impacts on the consumer as another visit may need to be scheduled last minute;	3. As above. This is only impacted during high impact maintenance (and only then if something goes wrong and the maintenance activity overruns by hours). The outage limit remains at 6 hours
OVO	Large Supplier	Yes	Yes, although there are positives in the new methodology it does not consider User impacts and is focused on DCC ability to define impact. WE will still be impacted by certain systems being down when those changes impact our customers. This will not improve or address that.	The rationale behind creating high and low impact windows is directly based on User impact. High impact maintenance impacts core services which have maximum User impact and this is why there is no increase on the 6 hours currently allowed by SEC. DCC recognise that low impact maintenance does also impact Users but have taken this approach in order to de-risk the activities that impact “core” services and to allow us to put through the necessary volume of Changes. DCC believe that not being able to implement Change, because of lack of hours, would ultimately have a far greater impact on Users.
EDF	Large Supplier	No	The proposed solution maintains the amount of time for which the core systems/processes will not be available as a result of Planned	This assumption is correct

Question 2				
Respondent	Category	Response	Rationale	DCC Response
			Maintenance so there should be no impact on us as a result. This is, however, on the assumption that Planned Maintenance is assessed appropriately and that items designated as Low Impact Planned Maintenance will not disrupt core services.	

Question 3: Will your organisation incur any costs in implementing MP092?

Question 3				
Respondent	Category	Response	Rationale	DCC Response
Electricity North West Limited	Network Party	No comment	No comment	
Symbio Energy Ltd.	Small Supplier	No	-	
Western Power Distribution	Network Party	No	-	
Utilita	Large Supplier	Yes	<p>The effects of proposed legal text changes in H8.3 c and d. will have a detrimental impact to the consumers, especially prepay.</p> <p>There will also be a detrimental impact to Suppliers who must manage consumer expectations during these maintenance times.</p> <p>It is worth noting that MP109 proposes using the SSI as a standard means of communication, with up to 36 hours of planned maintenance windows per month which could impact the SSI; this modification makes subsequent mods, like MP109, significantly less attractive.</p>	<p>DCC disagree that the proposed legal text changes in H8.3 c and d. will have a detrimental impact to the consumers, especially prepay.</p> <p>There should be no need for extra comms during low impact maintenance as stated above</p> <p>Usage of the SSI, and any future changes to the SSI, will be planned around any maintenance windows. As stated above, we do not believe there would be 36 hours per month of maintenance on SSI.</p>

Question 3				
Respondent	Category	Response	Rationale	DCC Response
			As stated above DCC has not provided enough information to do a thorough Impact Assessment of costs.	
OVO	Large Supplier	No	As the issues causing us cost still remain, this will not incur further cost to us but will not remove costs on how we react to this work being done.	
EDF	Large Supplier	No	-	-

Question 4: Do you believe that MP092 would better facilitate the General SEC Objectives?

Question 4				
Respondent	Category	Response	Rationale	DCC Response
Electricity North West Limited	Network Party	Yes	Subject to our response to Q1 and our proposed modifications	
Symbio Energy Ltd.	Small Supplier	Yes	This will help to prioritize the planned maintenance.	
Western Power Distribution	Network Party	Yes	We agree that this modification will better facilitate SEC Objective (b) by enabling the DCC to better meet their licence obligations.	
Utilita	Large Supplier	No	SEC objective B states “efficiently discharge the other obligations imposed upon it by the DCC Licence”. To work efficiently, the DCC should strive towards reducing downtime rather than changing its legal obligation of providing a reliable interface.	We believe this Modification will help plan and carry out maintenance more effectively. Maintenance is required to keep the DCC Total System running efficiently.
OVO	Large Supplier	Yes	At the highest level, it meets SEC Objective (b).	
EDF	Large Supplier	Yes	We agree that M092 will better facilitate SEC Objective (b) as it will enable the DC to better meet their obligations around Planned Maintenance.	

Question 5: Noting the costs and benefits of this modification, do you believe MP092 should be approved?

Question 5				
Respondent	Category	Response	Rationale	DCC Response
Electricity North West Limited	Network Party	Yes	Subject to our response to Q1 and our proposed modifications	
Symbio Energy Ltd.	Small Supplier	Yes	If planned maintenance help to avoid any disruption to the provision of the DCC services, then yes, the MP092 should be approved.	
Western Power Distribution	Network Party	Yes		
Utilita	Large Supplier	No	<p>We see no benefits if this was to be approved in its current state.</p> <p>Overall, MP092 increases the ability of the DCC to allocate Planned Maintenance periods from 6 hours to 42 hours; the associated risk of disruption thereby increases, too, which could be detrimental to consumers, especially prepay, compared to the current legal text and Maintenance window allowance pre-trial. In turn, this leads to cost and risk for Suppliers. Indeed, it is unclear what the benefits of progressing with the extension of Maintenance windows is.</p>	DCC stated they have responded to these points above.

Question 5				
Respondent	Category	Response	Rationale	DCC Response
			Whilst we see a rationale for splitting maintenance categories to High or Low impact if the justification for choosing either High or Low was always communicated clearly to DCC Users. However, there is no mechanism to challenge the decisions.	
OVO	Large Supplier	Yes	We do although we'd like DCC to address the customer impacts of the way they actually carry out planned maintenance.	The only material impact to consumers should be during high impact maintenance windows and, specifically, the disruption to e2e comms. Outage in this respect remains at 6 hours.
EDF	Large Supplier	Yes	-	-

Question 6: How long from the point of approval would your organisation need to implement MP092?

Question 6				
Respondent	Category	Response	Rationale	DCC Response
Electricity North West Limited	Network Party	No comment	No comment	
Symbio Energy Ltd.	Small Supplier	Within two months	We will identify the high and low impact areas. If there are any schedulers setup already within the Planned Maintenance time between 20:00 and 08:00 hours, we will change our systems schedulers. We will make sure the no service request will send during the maintenance time frame.	This only applies to high impact maintenance windows
Western Power Distribution	Network Party	N/A	-	-
Utilita	Large Supplier	N/A	-	-
OVO	Large Supplier	N/A	This is already in place. DCC are following this approach and we've adapted to it.	
EDF	Large Supplier	N/A	As the trial process is already in operation on an ongoing basis we would not need any lead time to implement this change.	

Question 7: Do you agree with the proposed implementation approach?

Question 7				
Respondent	Category	Response	Rationale	DCC Response
Electricity North West Limited	Network Party	Yes	Subject to our response to Q1 and our proposed modifications	
Symbio Energy Ltd.	Small Supplier	Yes	Yes, Symbio Energy agree with the proposed implementation.	
Western Power Distribution	Network Party	Yes	-	-
Utilita	Large Supplier	No	For the reasons addressed in question 1	
OVO	Large Supplier	N/A	There is no approach to implementing this, it is already in place and only a document change. It is not possible to disagree with it.	
EDF	Large Supplier	Yes	We agree that this should be targeted for the February 2021 release; however it is disappointing that this can't be included in the November 2020 release.	

Question 8: Do you agree that the legal text will deliver MP092?

Question 8				
Respondent	Category	Response	Rationale	DCC Response
Electricity North West Limited	Network Party	Yes	Subject to our response to Q1 and our proposed modifications	
Symbio Energy Ltd.	Small Supplier	Yes	Yes, Symbio Energy agree with the legal text with current version of 2.0.	
Western Power Distribution	Network Party	No	We believe that the way that the legal text is drafted for defining a High Impact Planned Maintenance doesn't clearly allow for changes that might impact a User but without necessarily impacting install and commission or end to end communications. We believe that High Impact also needs to include any changes that will have an impact on the User.	This is the intention (with the exception of changes to SSI). We would welcome a review of the legal text to meet this concern.
Utilita	Large Supplier	We do not agree with the proposed solution for MP092.	<p>In the legal text, the proposed changes in H8.3 c and d allow for hours of downtime to increase and more windows for planned maintenance. There is no protection for customers during these times and likelihood for unplanned maintenance to reduced is vacant in this modification.</p> <p>The proposed legal text</p> <ol style="list-style-type: none"> 1. increases the windows and amount of maintenance allowed. 	DCC stated they have responded to these points above

Question 8				
Respondent	Category	Response	Rationale	DCC Response
			2. the amendment of the phrase “which will disrupt or poses a Material Risk of disruption” means that unless DCC are certain that the Maintenance will disrupt, they must classify the Maintenance as Unplanned. It can only be Planned if it “will” disrupt. This means DCC will have to classify Maintenance that may cause disruption as Unplanned (Please see question 5).	
OVO	Large Supplier	Yes	n/a	
EDF	Large Supplier	Yes	We have not identified any issues with the legal text.	

Question 9: Do you believe there will be any impacts on or benefits to consumers if MP092 is implemented?

Question 9				
Respondent	Category	Response	Rationale	DCC Response
Electricity North West Limited	Network Party	No comment	No comment	
Symbio Energy Ltd.	Small Supplier	No	-	
Western Power Distribution	Network Party	No Comment	-	-
Utilita	Large Supplier	Yes	Impact to consumers is negative as this is likely to lead to further system downtime (please see question 5 and 8). There is also little evidence this mod is needed to resolve any problem. Finally, there is no benefits given so it is unclear why this mod is being proposed.	DCC stated they have responded to these points above
OVO	Large Supplier	No	No, as this change is not looking to benefit consumers as the elements that impact them have not been considered. There is nothing in any of the Modification documentation considering that impact in how our customers behave being addressed. If they were there would be measures factoring that.	

Question 9				
Respondent	Category	Response	Rationale	DCC Response
EDF	Large Supplier	No	This change will not have a direct impact on consumers as the amount of potential 'down time' allowed within the SEC, which has a direct impact on consumers, will stay the same.	

Question 10: Please provide any further comments you may have

Question 10			
Respondent	Category	Comments	DCC Response
Electricity North West Limited	Network Party	No comment	
Symbio Energy Ltd.	Small Supplier	-	-
Western Power Distribution	Network Party	-	-
Utilita	Large Supplier	The risk for consumers (especially those that are PPM) has not been addressed transparently. In the modification report V0.2 it is says that “There is no additional impact on consumers than current arrangements, as none of the current arrangements for downtime has been amended” yet proposed changes to the legal text in H8.3 c and d would contradict this, as allowed downtime is increasing from the initial times highlighted in H8.3 (b) (if risky maintenance is not under scrutiny anymore, as mentioned above in Question 8). This impact should be clearly highlighted so that all SEC parties understand the potential implications of this Mod	DCC stated they have responded to these points above
OVO	Large Supplier	None.	

Question 10			
Respondent	Category	Comments	DCC Response
EDF	Large Supplier	-	-

Planned Maintenance Trial – Quarterly Update

**We believe in making Britain more connected,
so we can all lead smarter, greener lives.**

15 December 2020

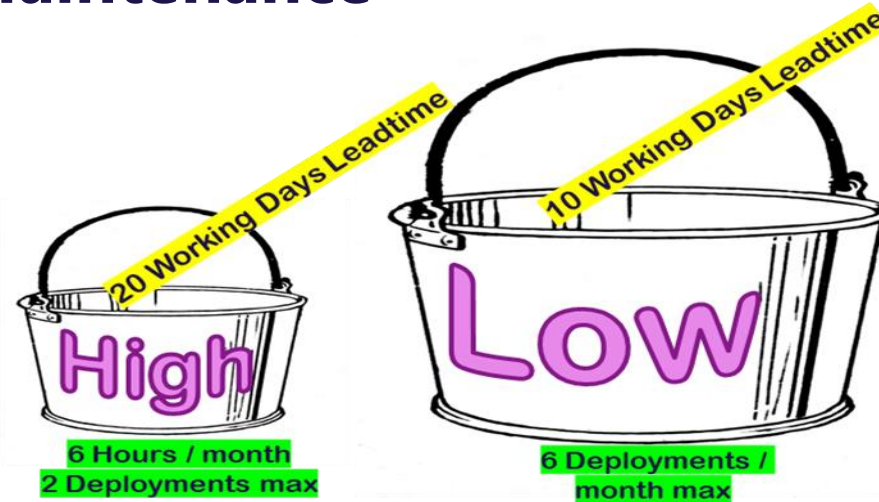
Annex D- Public

Agenda

1. The Approach and Objectives
2. Obj1 – To Improve Visibility of Changes to Customers
3. Obj2 – To Improve Quality of Changes deployed
4. Obj3 – To Improve the throughput aligned to demand
5. Obj4 – To focus on business impact not just downtime
6. Change Calculations for High and Low windows (as presented previously).

The Approach – Planned Maintenance

Split changes into 2 types



- Allow more LOW more of the time
- Enables more focus more on HIGH when they are deployed

- Determine High vs Low by assessing:
 - Critical or non-critical service being impacted
 - Customer Impacting or non-customer impacting
 - Complex or easy
 - Downtime or no downtime

Key Objectives: Visibility, Quality, Throughput,
Downtime & Business Impact

DCC Confidential

4

Objective 1: To Improve Visibility of Change

New Maintenance Slots

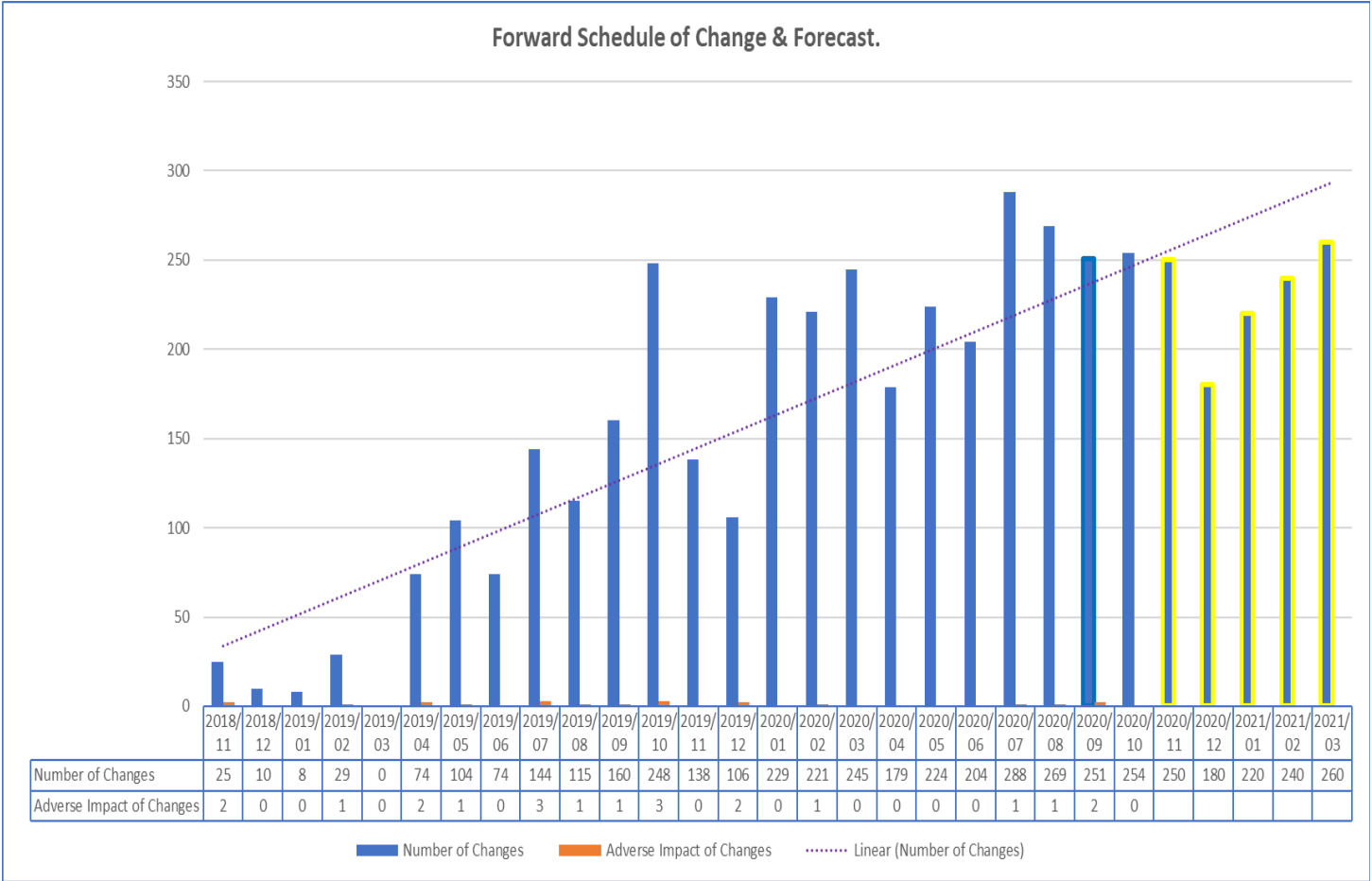
- Up to 6 Low-risk maintenance slots available each month.
- Up to 2 High-risk maintenance slots available each month (please note that the outages still counts as 6 hours)

Increased visibility of Changes

- As of the 23rd November 2020, now 3,986 changes that have appeared on the FSC

Volumes of Change – context

Massive increases in the volumes of changes have been seen across the DCC network, however, Normal Changes (which account for the planned outages in high impact windows and non-outage requests in low impact windows) have remained consistent, approx. 25 changes per month.



Objective2: To Improve Quality of Changes Deployed

Change Success Rates

Success rates have been going up consistently since the start of the planned maintenance trial.

Target >95%

Adverse Impact Rate

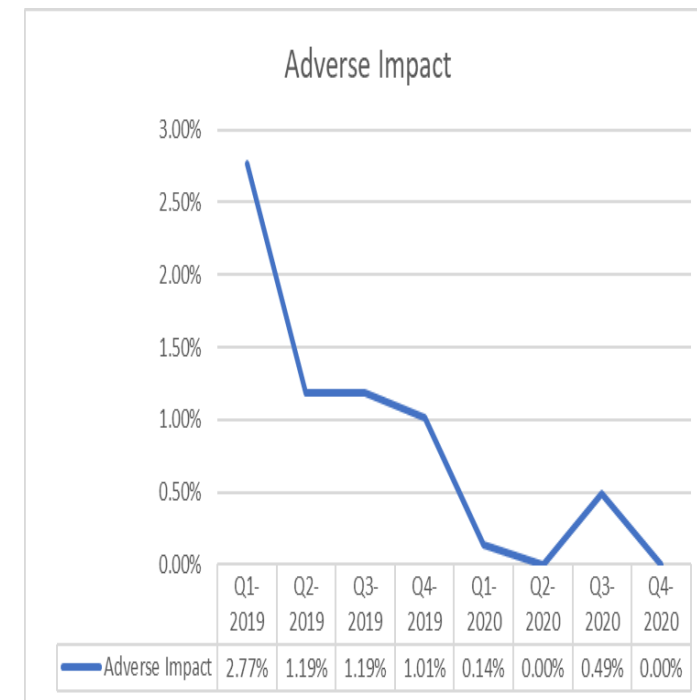
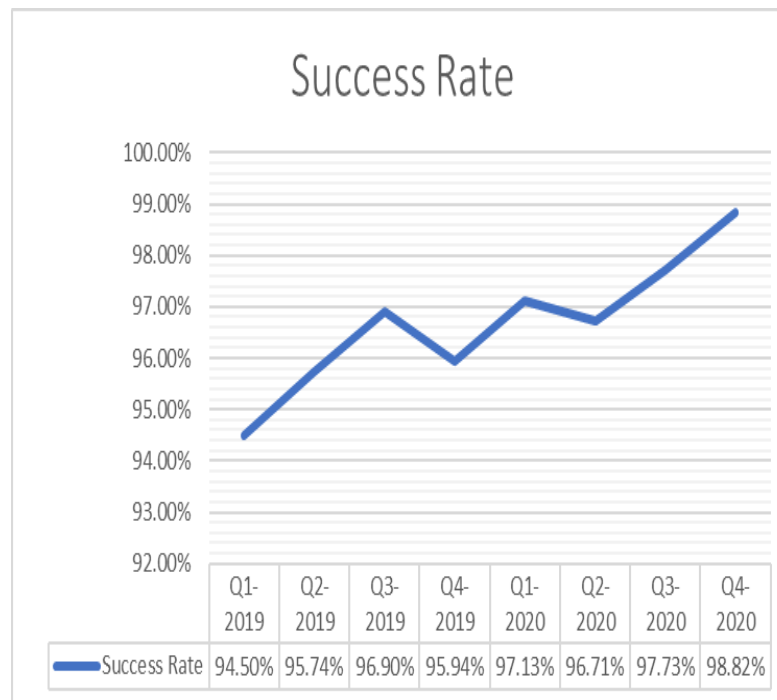
This calculates the number of changes which have caused a category1 or category 2 Incident.

Target <3%

Changes Fail Sometimes...

DCC ensures that a formal lessons learned and actions are assigned to address any change failures.

>80% of failed changes have cause no – or minimal impact to Service. This is due to rigorous run-book reviews, checkpoints and challenges.



Objective3-5 Updates

Objective3: To Improve the Throughput of Changes to Aligned Demand

New Maintenance Slots.

Up to 6 Low-risk maintenance slots available each month, currently actively, using 3 slots per month

Standard Changes

Hit 3.5% in May in 2019, this is enabling very quick operational non-impacting changes to take place. Averaging 30% Standard Changes per month, based on overall figures.

Objective 4: To maintain focus on limiting downtime on high impact changes

Limiting outage time as per SEC guidelines, protecting our Customers.

Objective 5: Focus on Business Impact not just Downtime

All change communications focus on impacted services.

Planned Maintenance High and Low Windows.

In order to ensure that the changes were correctly assigned into the appropriate windows during the initial stages of the planned maintenance trial, DCC developed a Change Risk Calculator to validate decisions being made and to ensure that releases were placed in the correct maintenance windows.

The calculation was as follows: **Service x Impact x Complexity x Downtime = RISK SCORE**

However, this has since been amended and adapted to simplify and reduce any potential errors in calculations.

The method used is very simple and ensures no mis-alignment of releases into Windows.

- If a change or release impacts Customers ability to send or receive Service Requests across the DCC network, then these are placed in **High Impact windows**.
- If a change or release does **NOT impact** the Customers ability to send/received Service Requests across the DCC network, then these are placed in **Low Impact windows**.