

Modification Benefits Realisation

Analysis of previous releases

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Executive Summary

The SEC Change Sub-Committee (CSC) has asked for increased focus on the business benefits of modifications being processed. Currently, limited information is provided from SEC Parties about the expected benefits of a Modification, and therefore the final Business Case presented in the Modification Report to inform the Change Board vote is intangible, and therefore difficult to measure against. Additionally, it has recently been identified that implementation of Modifications in SEC Releases is significantly more expensive than previously stated in DCC Impact Assessments, and increasing delays in implementation are further eroding the Business Cases.

We have considered how other utility Codes treat these benefits cases to establish best practice examples. The consensus is that all Codes struggle with these issues, but there are some methods of gathering more information which could be employed.

Together with the Project Sponsor, we identified a selection of Releases to analyse, and to establish if there were measurable criteria provided in the Modification Report to identify successful benefits. We then attempted to identify if the expected benefits of a release were realised, through interviewing SEC Parties.

The results from the interviews were positive - most Modifications were considered to have been worthwhile to implement. However, no industry costs associated with the changes were forthcoming. One Party noted that Parties are unlikely to be able to provide fully costed impact assessments as that requires additional resources, which are only allocated once a change is approved and pending implementation. However, they believed that a rough order of magnitude cost could be provided when available.



Analysis from other Codes suggested that ‘estimated benefit’ should be a question considered at the beginning of the process and reviewed throughout. This could be used in combination with a rough order of magnitude approach to measuring benefits.

In Phase 2 of the project, we propose to identify how the proposed actions from this report can be introduced into the Modification process, and how they can be used to confirm benefits are achieved for future releases. These actions include requesting benefits information at an early stage of proposals, asking for a rough order of magnitude estimate, setting up standard estimates for frequent costs (e.g. meter replacement), and continuing to reduce costs and delays to implementation.

Part 1 - Background

Current arrangements

The CSC is a Sub-Committee to which the SEC Panel delegates its responsibility for ensuring the progression and completion of work relating to Modifications. Feedback from members of the CSC has resulted in additional focus on the Business Cases for Modifications. The CSC rightly believes that when the Change Board is presented with Modifications to vote upon, there should be a robust and clear Business Case for making, what can be, costly changes to the Smart Metering Implementation Programme.

Historically, SECAS has asked SEC Parties to provide information on the costs and benefits that any given change will afford them, but often no information is provided, or, where benefits are expressed, they are not given a monetary value.

In addition, it increased costs to implement Modifications in SEC releases has been identified, and in several cases, implementation delayed. This inevitably reduces the total benefits over a given period of time.

Issue

There is currently no process in place to audit the implementation of Modifications and changes to ensure they are delivering the originally stated outcomes. Business Cases have been peripheral to the Modification process, with insufficient focus applied to them.

Increased costs

During the investigations carried out as part of [DP218 ‘Review of the SEC Charging Methodology’](#), SECAS uncovered non-transparent Data Communications Company (DCC) costs relating to SEC Releases. Costs following Pre-integration (PIT) testing, and subsequent costs, have grown, with little to no challenge of the overall testing regime and associated cost. Although testing has been approved by the Testing Advisory Group (TAG), the total costs of post-PIT testing have not been shared with the TAG. This is mainly because the DCC cannot assess the cost of the testing until the scope of the release has been approved and finalised.

These additional testing costs have further increased the costs to implement Modifications within the Smart Metering Implementation Programme, and with little information on benefits, it



has become a concern that Modifications being implemented are costing significantly more than the Change Board has agreed to, with minimal information on the benefits case.

Delayed implementations

SECAS has already initiated monitoring of next steps in Modifications, to ensure actions required post implementation are progressing (post-decision delivery). This is irrespective of the Party required to deliver the actions. This has highlighted delays in the implementation of some Modifications such as [MP242 'Change to Operational Metrics to Measure on Success'](#) and [MP176 'Customer Analytics Reporting'](#), as well as problems with implementation for [MP168 'CPL Security Improvements'](#). These delays potentially erode the original Business Case.

There have also been occasional incidents of incorrect implementation of Modifications which have caused further issues and cost across industry, for example [MP093 Implementing IRP511 and CRP535 to support GBCS v3.2 devices](#).

Impacts

Lack of detailed information on benefits makes it difficult for the Change Board to be confident that approving a change will provide a net benefit to the industry and consumers. This has often resulted in Modifications being implemented with insufficient detail to enable proper assessment of benefits realisation to take place.

Following a Change Board decision, delays in implementation may occur. Associated benefits often have a time dependency, however since there is currently no/little numerical information on the benefits, we are currently unable to assess how much benefit has been lost due to the delays. In an industry which is constantly moving, a Modification that is designed to alleviate a problem or provide efficiencies may not deliver the intended value, should implementation be delayed and the size of the issue diminish over time. As a result, it can be very challenging for some Modifications to achieve their true value, where delays have been incurred.

Part 2 – Industry Best Practice

We wanted to understand if any other utilities Codes more accurately collect benefits information which would help reconcile expected benefits of change against actual benefits seen, so we undertook a review of other reconciliation methods. This included noting if the Code asked for individual costs as well, to allow them to be included in the Business Case evaluation. We examined utilities Codes (not limited to the energy industry) from electricity, gas and water, as detailed below.

Cross Code Analysis

A review of select industry Codes was carried out in January 2025 to establish if there were any lessons that could be learned, or practices that could be adopted, from those Codes. Each Code was reviewed specifically on the benefits criteria in the Code objectives, the requests for benefits information on the initial form to raise the change, and the response template. The Codes reviewed were as follows:



Area	Code
Electricity	Connection and Use of System Code (CUSC)
Electricity	Balancing and Settlements Code (BSC) – Modification (Mod) and Change Proposal (CP) processes
Electricity and Gas	Retail Energy Code (REC)
Gas	Uniform Network Code (UNC)
Water	MOSL

Objectives

The objectives are specific to each Code. All Codes reviewed include some wording on efficiency, in terms of the running of the Code or the processes within it. For example, the REC includes an objective that states *“to drive continuous improvements and efficiencies in the operation of the REC and the central systems and communication infrastructures it governs.”*

Initial form and response templates

Code	Benefit information requested on initial CP / Mod?	Detail	Cost and benefit asked for on industry consultation / IA?	Detail
CUSC	Can be provided	Not mandatory	No	Can be provided but not mandatory
BSC - Mod	Specific section of the form	Does not specifically ask for £££ or numbers	Can be	Can be specific questions
BSC - CP	No	Only justification for change requested	Yes	Encourages a scale but does not have a key for the scale
REC	No	Because REC can start with an Issue it is not asked for but can be provided	Yes	Can be specific questions
UNC	Can be	Asks for reasons for change - can include benefits	Yes	Can be specific questions
MOSL	Yes	Have a separate template but has never been used	Yes	Now using order of magnitude for both costs and benefits.



- Industry participants are asked and encouraged to provide costs and/or benefits during impact assessment or consultation as part of all costs reviewed, except CUSC. However, all Codes are reliant on industry participants to provide this information, the issue is not specific to the SEC.
- The energy Codes have not had large scale review since REC inception. The REC does carry out continuous improvement so is currently trialling award of magnitude ranges within the impact assessment questions. It was also noted that Ofgem is reviewing the industry change process and had held Modification Working Groups in 2024 to gain feedback from key industry experts. The output of that work is now due.
- MOSL had carried out a substantial review in recent years. They found that mandating either cost or benefit on the initial CP/Modification form can be a hindrance and stop valid changes being raised. However, the ability to provide it should be encouraged.
- As shown below the BSC asks for High / Medium / Low benefits estimate but the question does not set out what High/Medium/Low means in actual terms, and could therefore be subjective to each organisation. This raises questions such as ‘Is it an impact on systems only, staff, cost?’ However, we believe that there is potentially scope for this to be constant across all codes.

Question 3

Will CP1594 impact your organisation?

High/Medium/
Low/None

If 'Yes', please provide a description of the impact(s) on your organisation and any activities which you will need to undertake between the approval of CP1594 and the CP1594 Implementation Date (including any necessary changes to your systems, documents and processes). Where applicable, please state which of the roles that you operate as will be impacted and any differences in the impacts between each role.

[Insert response here](#)

Part 3 – Releases Analysis

Expected outcomes versus observed outcomes

SECAS worked with the Project Sponsor to identify which SEC Releases to analyse. In 2022, SECAS introduced a specific section into the Modification report to highlight the Business Case and the benefits that were expected to be delivered by the implementation of Modification. We therefore determined that the most recent Releases would contain the more detailed information around Business Cases and expected benefits.

Additionally, we were requested by the Sponsor and SEC Parties to analyse some specific Modifications in older releases- MP093 (November 2020), SECMP0007 (November 2021) and SECMP0024 (June 2022). These were chosen as they either proposed changes to important



industry functionality, or implementation was not as smooth as it should have been, and there was a greater potential for the benefits to be eroded.

SECAS performed some initial analysis. The business benefit stated in the Modification Report for each Modification in a Release was examined, to determine what benefits of the release were expected.

This information was used to develop questions to Parties about what benefits their Party Category had seen. Parties were asked during interviews to compare the expected benefit with the benefits seen for the selected Releases and Modifications. We interviewed a broad cross-section of interested Parties for this report including Suppliers, Distribution Companies, Gas Transporters, Meter Asset Providers (MAPs) and Meter Manufacturers. Energy industry participants were asked about specific Modifications related to the releases covered in this report, and for any more general feedback. It is important to note that not all Modifications have benefits for all Party Categories and, in the interviews, the respondent's Party Category was noted against their responses.

A comparison of the expected benefits (from the Modification Reports) and the observed benefits (from interviews) can be found in Appendix A. The responses have not been attributed to individuals or SEC Party type, in the interests of being able to share honest and unfiltered comments. General comments about the process can be found in Appendix B.

Below is a selection of some of the interview responses.

Modification	Expected benefit	Benefit seen
MP093 'Implementing IRP511 and CRP535 to support GBSC v3.2 devices' (Nov 2020 Release)	IRP511 'Set Clock Alerts Refs in Alert Tables Incorrect' which introduces the Set Clock Alert 0x81C6 to the Event log to allow Users to identify the need for Home Area Network (HAN) Device fault correction. CRP535 'Restoring Removed Devices from the HAN' which allows Users to use Service Request SR8.9 'Read Device Log' to read the Communications Hub Function (CHF) device log. The log contains the active and historical Device which allows Users to know which historical Device has been removed from the HAN so that it could be restored if required.	There were three respondents who all had a positive view of this change, despite there being some controversy about the implementation at the time. One respondent said this is 'in use and 100% worth the price as quoted'. Another said it has 'reduced the number of remote reinstallations or physical meter replacements'.
MP222 'CPL submission efficiency improvements' (Jun 2023 Release)	Manufacturers that are not affiliated with a Supplier will be able to provide firmware and hardware revisions to their Devices.	Only one respondent commented on this and said 'this has clearly helped as we don't have to hunt for a sponsor but difficult to quantify. Certainly speeding things up but cannot provide numbers'.



MP178 'Removing DSP validation against the SMI join status for SR8.8.x' (Jun 2024 Release)	The Proposed Solution will remove the Data Service Provider (DSP) validation of Join status in the SMI when sending an Unjoin Service Request. This will allow the processing of unjoin commands irrespective of the join status held in the SMI.	One respondent said this 'has had benefits for suppliers. Previously the DSP would have stopped the request to the asset. This mod is a lot better for suppliers as don't have orphaned assets. Use it everyday'.
MP102B – 'Power Outage Alerts triggered by an OTA firmware upgrade - enduring solution' (Jun 2023 Release)	The Proposed Solution is for the DSP to build a mechanism that will suppress POAs which may have been caused by a firmware update to certain ESME Devices.	A respondent said 'DNO benefit helpful for them and reducing confusion but no benefit to suppliers'.
SECMP0007 – 'Firmware updates to mandated HAN devices' (Nov 2021 Release)	Introduce a way to execute OTA firmware updates to mandated HAN Devices, specifically In-Home Displays (IHDs), Prepayment Meter Interface Devices (PPMIDs) and HAN Connected Auxiliary Load Control Switches (HCALCSs).	All agreed this had been flagged to the Government as part of the smart roll- out but it had been descoped. Some will be using it in the future, but it requires testing and long lead in time before checking in on realised benefits.
MP270 – 'Enabling DCC to provide SMDA Test House services' (Nov 2024 Release)	To introduce clarifying terms in the SEC that would allow the DCC to carry out SMDA testing, provided it is awarded the contract.	Unclear who actually benefited, as both suppliers and manufacturer saw none.

This table indicates if respondents believed that benefits had been seen in at least one Modification within a Release:

Release	Benefits Achieved		
	Suppliers	Network Parties	Other SEC Parties
Nov 2020	Yes	Yes	Yes
Nov 2021	Yes*	n/a	Yes
Jun 2022	Yes	n/a	Yes
Jun 2023	Yes	Yes	Yes
Nov 2023	No	n/a	n/a
Feb 2024	No	n/a	n/a
Jun 2024	Yes	n/a	n/a
Nov 2024	Yes	No	n/a

* benefits not realised yet but are expected (SECMP0007).



Part 4 – Additional factors

Previously non-transparent testing costs

This project was initiated to take forward an opportunity to emphasise the value of a well thought out, detailed and documented Business Case to support Modifications.

The challenge to this is that the current way the DCC provides costings is prohibitive. Costs of a Modification are provided within an Impact Assessment, but do not cover testing. Once a number of Modifications have been approved by the Change Board (based on the costs provided in the Impact Assessment) the Release Scope is finalised. Only at this point can the DCC request an assessment of testing costs from their Service Providers. These testing costs are applied across the whole scope of the Release and therefore it is not possible to align them to an individual Modification. This in turn makes it harder to assess any delivered benefits against the costs incurred in implementation.

Cost savings can be achieved by the DCC through batching Modifications. This can mean that if similar testing is required for multiple Modifications in a release, these costs can be shared across the release. These costs can't be accurately predicted in Impact Assessments, as they would only become a reality based on the make-up of the release and the nature of the Modifications within it. The current costing approach makes it difficult to understand the root cause behind increased costs from predicted to actual. As costs cannot be allocated to a single Modification, it is difficult to understand if there are certain processes or areas of change which are either subject to changing costs, or are not being accurately costed during assessments.

SECAS has been working with the DCC, the Testing Advisory Group (TAG) and the Technical Architecture and Business Architecture Sub-Committee (TABASC) to determine appropriate testing levels based on the contents of each Release. In November 2024, this collaboration was successful in reducing post-PIT costs by £600k, and in June 2024 there was a reduction of £1.2m to deliver the associated release. These reductions were achieved through a review of the testing protocols. This review highlighted that additional testing had been added to successive releases, but not reviewed to ensure testing already in place was necessary and proportionate. Therefore, some unnecessary testing was being undertaken (for instance in areas that were previously affected by a release but not affected by subsequent releases) and this was removed (with agreement by TAG) from the testing schedule. Increasing use of emulators has also been employed to reduce testing costs.

SECAS will continue to liaise with the DCC to ensure efficient delivery of change including an estimate of testing costs alongside the standard Impact Assessments. This information should make the Business Case clearer in future.

Post decision delivery

The reporting of 'Post Decision Delivery' was introduced in March 2024. Any additional work needed to implement Modifications post decision is highlighted to the CSC. Once the Modification has been approved and voted on by the Change Board, the modification is then included in the Post Delivery Decision item at CSC. This stage only applies to Modifications which require further work once the Modification has been approved.



SECAS liaise with the DCC Project Manager for the Modification, who oversees the additional work and ensures each stage is reported on and confirm once completed against the timeline provided. The goal is to ensure successful implementation when the go-live date is reached, and any delays are reported on. This process is already in place, and we propose to formalise this including reporting to CSC, and where necessary, to the Operations Group (OPSG).

Part 4 – Conclusions

Provision of Industry cost and benefit information

Parties interviewed were unable to give us costs or scale of benefits seen. This made it difficult to determine any measurable criteria to establish the benefits realised. Parties were, however, positive about many changes that had been implemented to date.

The difficulty in providing benefits information may be partly due to the Business Case not being outlined at change inception, where the relevant detail may not necessarily be known, but it could promote awareness of the thinking required to support the successful implementation of the change.

We believe value could be added across the Codes, by including consistent questions around benefits and capturing order of magnitude costs and **benefits**. We note that Ofgem's reform of the Modification process (consultation now due to be issued) and the introduction of the Strategic Direction Statement (responses due end March 2025) may have an impact on this.

Many of those interviewed recognised the difficult role SECAS plays in the process. They also recognised the need for informed decision making, while also stating that they are generally unlikely to provide detailed, accurate Impact Assessments.

Some respondents also noted that there have been Modifications which have made a key contribution to the industry, but that these tend to be correcting known issues from smart roll-out rather than new ideas or improvements.

We propose to include a question on the proposal form around the **scale** of the issue and what 'success' might look like. An 'order of magnitude' system with specified ranges seems to be acceptable to industry without being too onerous, therefore we will be looking to roll this out.

We propose to include a question on the proposal form around the **cost** of the issue and what 'success' might look like. An 'order of magnitude' system with specified ranges seems to be acceptable to industry without being too onerous, therefore we will be looking to roll this out.

We propose to work with Ofgem, CACoP and CCSG to try to establish this 'order of magnitude' with cost ranges across industry.

One respondent suggested that it 'would be useful to have a number of metrics to allow SECAS to make assumptions to help draw up costs/benefits'.

We propose to work with the DCC, SEC Parties and Sub-Committees to provide standard costs for frequent impacts e.g. an agreed cost for meter replacement or site visit.

Commented [AH1]: I've reworded this sentence. Is this what you meant?



Additional release costs

SECAS continue to liaise with the DCC to reduce testing costs and to ensure transparency. We are also working with the DCC to ensure an estimate of testing costs is provided during the Impact Assessment, to ensure that the full cost of a Modification is visible at the voting stage.

We will work with the DCC to ensure testing estimates are provided for each modification and these will be discussed with the TAG and TABASC.

We will formalise these processes in relevant Sub-Committee Terms of Reference, and also the proposed Finance Sub-Committee. We will work with the SECCo Head of Sub-Committee Management to reflect DCC Modification costs in its scope where/ if appropriate.

Delays

We continue to liaise with the DCC to extend post-implementation monitoring, and gather feedback, to ensure changes are delivering the originally estimated specification and value. Where implementations are delayed, we propose to report these to the CSC, and where necessary the OPSG.

We will work with the DCC to report delays to implementation.

We will liaise with the OPSG and Performance Assurance Board to ensure on time implementation of Modifications where appropriate.

Continuous improvement

This project assessed whether the predicted benefits of some of the Modifications implemented over the last five years have been realised. We found that, in general, benefits had been seen, however measurable criteria were not available to inform this analysis.

By implementing the actions identified in this section, we can improve the information provided to the Change Board in Modification Reports, to enable it to make a more informed decision on the Business and Benefits Case for each Modification.

To ensure continuous improvement in the information provided by Parties, and therefore presented to the Change Board, we propose one Release each year should be examined, following the implementation of the Release. This will also take into account the changing maturity of the SEC, and changes made by other factors such as DSP re-procurement.

We propose to analyse one Release per year (following implementation of the Release) going forward to ensure the appropriate information has been provided, and the expected benefits have been realised.

