

Baseline Margin Application

DCC Price Control Submission RY19/20



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1 DCC Baseline Margin Adjustment (BMA) Application

1.1 Summary

The Baseline Margin adjustment (BMA) mechanism allows DCC to apply for an adjustment (“Relevant Adjustment”) to the Baseline Margin values specified in Appendix 1, Condition 36 of the Licence. The mechanism was included in the Licence with the aim of recognising and acknowledging the level of risk and uncertainty that DCC was facing over the course of the Licence term. The adjustment mechanism is intended to ensure that DCC is compensated for material changes in certain activities that are part of our Mandatory Business i.e. either a change in the volume, characteristics, risks or timescales of these activities.

Over the course of the past 18 months, DCC has continued to take a key role in achieving the Government’s goal of net zero carbon by 2050. Together with our customers and our supply chain, we strive to unlock the full potential of our smart metering platform to allow consumers to understand and control their use of energy more effectively, as well as to support future low carbon initiatives and innovations in the energy market.

RY19/20 has witnessed remarkable progress in the roll-out and upgrade of our core smart metering programmes. With the successful delivery of the SMETS2 infrastructure, the go-live of the first SMETS1 capability in the summer of 2019 as well as November 2019 SEC Release, DCC has shifted part of its focus onto optimising our customers’ experience, including through:

- the measurement of customer effort scores;
- the Technical Operations Centre’s (TOC) use of near-real-time dashboards to measure system performance; and
- the creation of our test labs which are aimed at replacing the CSPs’ testing services and consolidating them for the benefit of our customers.

Complementary to the operational improvements, we have also continued to invest in our security model to ensure that the security of our platform and IT environment is upgraded in light of technology changes as well as geared up to accommodate future initiatives.

Looking forward into RY20/21 and RY21/22, DCC’s focus is set on preparing for the successful go-live of the second and final SMETS1 capabilities as well as exploring innovative and different ways to re-use our network and technology for existing and new customers. Projects in this space involve the use of our network to handle new tariffs and pricing structures (Half-Hourly Settlement) and the Enduring Change of Supplier (ECoS) programme; building up our capacity to deliver Elective Services and in-life change; and the development of the Network Evolution programme, which is critical in ensuring our network remains resilient in the long term, enables faster change and automated testing at a lower cost.

Overall, DCC considers that these activities have led and will continue to lead to a material change of our Mandatory Business. We also consider that these activities add significant value to our customers and end consumers for the following reasons:

- **Delivery of Smart Metering Implementation Programme (SMIP):** the activities upon which this application is based are integral to the delivery of the Programme, and fully in scope of the LABP. We note that the additional costs relate to activities that were part of DCC’s remit at the time of the License bid, but not fully scoped or costed.
- **Value for Money** for energy consumers: the incurred and forecast costs of the associated activities upon which this application is based, are economic and efficient, and justified as part of this year’s price control submission.
- **Incentives** on DCC: this application is predicated on DCC demonstrating that it has acted in a manner that is economic and efficient. Where we do incur costs that are additional to those within our core scope of activities, the incentive is to deliver requirements which are to the long-term benefit of energy consumers.

As per previous years, this year's application is based on these assumptions:

- **Internal Costs:** the costs underpinning this application will be those defined as Internal Costs. DCC is applying for resource related internal costs (payroll, non-payroll and recruitment) as well as non-resource costs i.e. either accommodation or external services. Where we refer to non-resource costs, please note that these have been justified and explained elsewhere in this submission, insofar these exceed the materiality threshold.
- **Grounds applied for in previous years:** these activities were justified and allowed by Ofgem in previous years. Subsequently, either additional costs have been incurred and/or the required level of certainty for inclusion has now been met, whereas that was not the case previously. We refer to these throughout the document as having incurred “**increased levels of certainty**”.
- **New Grounds:** as we increasingly evolve into a multi-Programme business, additional grounds are being identified. We are of the view that some of these grounds formed part of the original LABP but were not fully scoped nor costed at the time. Other activities stem directly from the reuse of our platform for either Government or industry led initiatives.
- **Switching costs:** internal costs for the Central Registration Service are excluded from this application. Separate arrangements were put in place for the Switching Programme, including a 12% margin rate applicable to all internal costs that are associated with the Programme.
- **Identifying those costs which are excluded or ineligible for the application:** historically, DCC has not always applied for margin for all new costs incurred within a regulatory year. In those instances, unless new grounds can be identified, DCC has missed the window in which we could have applied. In other cases, DCC has not attempted to apply because we could find no new grounds.
- **Rejected Grounds in previous years:** the table below lists the grounds that were rejected by Ofgem in previous years. Costs associated to these grounds – both resource and non-resource – are excluded from this year's application apart from the “New Scope – Future Activities” driver, which was rejected by Ofgem on the basis that there was insufficient certainty around the associated costs.

Drivers excluded from the RY19/20 BMA
• Performance Reporting and Price Control
• Regulatory Change - REC
• Broader Regulatory Change
• Ops - Operating Model
• Support - Compliance volume increase
• Risk and Issue Management
• Ready to Scale
• Strategic Procurements
• Increased Demand for Customer and Stakeholder Engagement
• Investing in Business Process Volume Management

The following sections specifically set out and explain the drivers for cost variations that have either previously been used by DCC and approved by Ofgem, and new drivers.

2 Drivers of Cost Variations

The proposal for the adjustment is based on variations to DCC's Mandatory Business, which either occurred over the course of RY19/20 or are likely to take place in the future. The completion of this application is in

accordance with Ofgem's most recent guidance¹, and fulfils the requirements² as set out in Appendix 2 of LC 36.

The cost variations that support this application stem from activities which relate to Mandatory Business³ and are associated with additional requirements placed on DCC. An overview of these variations is provided in this chapter together with a justification and rationale for the inclusion of each specific relevant activity. The justification of costs and evidence of economic and efficient spend however is included in DCC's RY19/20 Price Control submission⁴.

In summary, this year's application includes:

- Nine continuations of variation included in the RY18/19 BMA application, where activity has continued into 19/20; and
- One variation that relates to New Scope activity.

For the grounds that continue in this year's BMA, it should be noted that the certainty levels for the relevant activities have increased compared to last year i.e. DCC has a more accurate view of the required level of resource and costs for that activity. This is in line with DCC's Licence which recognises the level of uncertainty that exists in respect of mandatory business activities and the difficulties DCC faces in accurately forecasting resources and costs. The table below lists the drivers and Relevant Activities that form part of this year's BMA.

The table below summarise the drivers that are being used in this year's application.

Change Driver	Activities – Resource and Non-Resource	RY driver first raised
Increased Certainty on the development and delivery of the SMETS1 Service⁵	SMETS1 Programme	RY16/17
Increased Certainty on R.2.0	Interoperability DBCH Testing	RY17/18
Increased Certainty on Facilitating Additional Relevant Services	Brabazon House	RY18/19
Change to DCC's Supply Chain structure (increase in commercial activity)⁶	Further Increase in Key Service Providers	RY17/18
	Increase in CRs/PRs and Procurements	RY18/19
	Supplier Relationship Management dashboard	RY19/20
Increase in Security Requirements (Security driven change)⁷	Transformation of DCC's Security model	RY17/18
	Enterprise IT	RY19/20
	Black Swan Crisis Management	RY19/20
Facilitating and Supporting Future Releases	November 2019 and June 2020 SEC Releases	RY19/20
	Test Automation	RY19/20
Technology Driven Change	Production Proving	RY17/18
	Network Evolution	RY19/20
	ESME Noise Rise Study	RY19/20

¹ See <https://www.ofgem.gov.uk/publications-and-updates/dcc-price-control-guidance-processes-and-procedures-0>

² See the Supporting information in Section 8.5.

³ For definition see Chapter 1, Part A, and Paragraph 1.4 of the Licence.

⁴ As required by Licence Condition 36, Appendix 2, Part A, A5(c)

⁵ This is not one of the new variations, but there is additional activity and justification for change in RY1819 hence an explanation has been provided.

⁶ As above in point 5.

⁷ As above in point 5.

Change Driver	Activities – Resource and Non-Resource	RY driver first raised
	Emulators	RY19/20
Service Standard expectations	Service standard expectations	RY17/18
	Order Management System	RY19/20
People Transformation	People Transformation	RY17/18
Increased Certainty on New Scope – Future Activities	Enduring Change of Supplier (ECOS)	RY18/19

2.1 Grounds applied for in previous applications – Increased Levels of Certainty

The following section lists the grounds presented in previous applications which DCC considers are also relevant for this year's BM application. Further explanation has been provided for these grounds in this application as there has been a significant increase in activity and drivers of change.

Please note that DCC has **not** re-applied for margin, as part of this submission, where the grounds have previously not been granted.

2.1.1 Increased Certainty Levels on the Development and Delivery of the SMETS1 Service

The detail and background of the SMETS1 programme were described in detail in last year's price control application. In summary, SMETS1 meters were rolled out by suppliers ahead of the establishment of DCC systems so that customer benefits could be accelerated. SMETS1 meters are the first-generation smart meters which were not designed with the same level of compatibility and interoperability in mind as SMETS2 meters. The main drawback of the approach suppliers took to rolling out SMETS1 meters is that on a change of supplier, these meters risk losing their smart functionality and become "dumb". Without addressing this issue, the full benefit of early adopting smart meters will not be realised.

As part of the RY18/19 price control submission, we also explained some of the technical and commercial complexities that the Programme was facing as it geared up to go live in the summer of 2019. As the programme has evolved and detailed plans were developed, it became increasingly apparent that the complexity of the design architecture was much greater than originally envisaged; industry feedback did not reflect actual meter behaviour; and that customers needed more time to implement the agreed approach for transition and migration. Collectively, these issues were (i) raised with BEIS as posing a significant risk to delivery and (ii) articulated through relevant governance forums with industry and BEIS.

In response, a restructure of the Programme was carried out in the last quarter of 2018 to develop and agree a revised delivery plan ("LC13" plan). Further changes were introduced to the Joint Industry Plan respectively postpone the Initial Operating Capability (IOC) go-live until the end of the July 2019, as well as to reflect realistic plans for the subsequent phases in which industry could have confidence. As a result, the main capabilities for SMETS1 enrolment became available in November 2019 (IOC) when active and mixed functionality was available. The Middle Operating Capability (MOC) was split into the release of two separate cohorts, respectively for the [REDACTED] and [REDACTED] cohort in March and June 2020. The revised timescales proposed a go-live for the Final Operating Capability (FOC) in July 2020⁸.

At the request of BEIS, and as part of the restructure in 2018, we previously explained that the Programme procured temporary resources through a delivery partner and an executive level PMO (EPMO) function, to respectively expedite the onboarding of additional highly skilled resource and introduce a strong design authority and executive oversight. Justifications for the extension of the delivery partner and the procurement of the EPMO are described in the SMETS1 non-resource chapter of the main price control submission.

As per last year, most resources working on the Programme are dedicated staff working solely on the SMETS1 programme apart from a few activities that are within the Operations cost centre. In terms of the

⁸ At the time of writing, DCC and BEIS are revisiting alternative delivery dates for the go-live of FOC.

non-resource we would like to include in this application, we note that over the course of the year significant effort was spent on the technical build of the migration capability for specific cohorts i.e. [REDACTED], [REDACTED] and [REDACTED]; the range of testing activities to cater for the different types of SMETS1 devices; as well as the build of the SMETS1 Migration Reporting System which is vital to the overall success of SMETS1 migration. The non-resource activities we include in this year's application are:

RY19/20 SMETS1 (Non-Resource)
SMETS1 Requesting Party – [REDACTED]
SMETS1 Requesting Party – [REDACTED]
SMETS1 delivery partner – [REDACTED]
SMETS1 Executive Programme Management Office – [REDACTED]
SMETS1 migration - [REDACTED]
SMETS1 – Interop checker
SMETS1 Migration Reporting System
SMETS1 - TEST DEVICES
SMETS1 - TEST DEVICES (Elster Honeywell)
SMETS1 - TEST DEVICES (O2)
SMETS1 - TEST LAB (SMS)
SMETS1 - SIT TEST LAB (SMS) DCCT0064
Provision of Tactical Test Lab
SMETS1 UTS Test Lab Initial Rent
FOC testing

Basis for application

The criteria and basis for application are similar to previous years, however the level of certainty associated with this has materially increased. The criteria are as follows:

- **Complexity:** the level of complexity of the Programme stems from the significant number of variations that exist amongst the wide range of devices, firmware configurations, service providers' systems and business designs, as well as the commercial challenges that exist with existing and new service providers in the SMETS1 supply chain. These complexities also manifested themselves in the migration phase of the Programme whereby unexpected device behaviour led to delays in the completion of testing phases and the overall delivery timescales.
- **Timelines:** over the course of RY19/20, DCC has undertaken several risk assessments, which following consultation with stakeholders and Government, led to changes to the agreed LC13 Joint Industry Plan and associated timescales, postponing the initial go-live date for IOC and subsequent revisions to the MOC and FOC.
- **Volume:** considering the program's increased complexity, DCC, Government and industry have collectively recognised the need to revise the requirements. Additional requirements were included and consulted on as part of the revised LC13 plan.

Added Value to Industry and Energy Consumers

In terms of benefits to our customers, and by extension end consumers, we note that the overall purpose of the Programme is to integrate SMETS1 meters into the DCC service so that all SMETS1 meters can be operated in 'smart mode'. As such, consumers will continue to be able to maintain the smart functionality of their meter on a change of supplier. This ultimately removes the need for the new energy supplier to replace the existing SMETS1 meter with a SMETS2 meter in order to enable interoperability.

2.1.2 Increased Certainty on R2.0 – Interoperability DBCH Testing

Interoperability test events have been running since 2015 as a way for device manufacturers to test their products against all the variants of Comms Hubs in an informal and flexible environment. At the end of 2018, the National Audit Office (NAO) identified⁹ that the SMIP has limited opportunities for device manufacturers to test interoperability with other devices and different variants of Comms Hubs and interoperability test events are seen as an effective method of delivering this vital testing.

The objectives of the test events are to identify interoperability issues between devices to help industry prepare for smart meter roll out. These events are especially important for CSPs as it gives a further opportunity to test their communications hubs with a wide variety of devices outside of DCC formal test provisions. Interoperability test events were held under PR1038 (Interoperability Test Events Support 2019) and PR1171 (Interoperability Test Events Support 2020) to support R2.0 Comms Hubs devices prior to roll-out.

Costs associated with this driver include those for the DBCH testing events as well as any relevant resources under the cost centres specifically working on DBCH testing.

Basis for application

The criteria and basis for application are similar to previous years, however the level of certainty associated with this has materially increased. The criteria are as follows:

- **Complexity:** R2.0 release integrates new additional functionality including the development and integration of the DBCH. The DBCH has required DCC to work with the CSPs to develop the technical solutions, in the context of difficult commercial negotiations. These negotiations are made more challenging by the CSPs' monopolistic position, and this has in itself spawned additional work in seeking alternatives to a CSP-provided DBCH, so as to apply credible commercial pressure on the CSPs. This is crucial to achieving value for money for consumers.
- **Timelines:** R2.0 has faced several challenges in regard to the implementation of the Programme's delivery plan. In part, these issues are related to the CSPs' ability to test their DBCHs with a wide variety of devices.

Added Value to Industry / Energy Consumers

Release 2.0 provides functional improvements to the DCC service which will enhance its capability, specifically the greater connectivity provided by DBCH will allow additional consumers to benefit from the use of SMETS2 Smart Meters.

2.1.3 Facilitating Additional Relevant Services (Brabazon House)

As part of RY18/19 BMA application, we justified the grounds for adjusting our margin levels for the set up and operating costs for facilitating both the Technical Operations Centre (TOC)¹⁰ and the new Test lab facilities. In light of the increasing demands placed by the SMETS2 and SMETS1 programmes, together with the need to consider the potential for the delivery of value-added services, it became clear that the existing facilities, provided by the CSPs, were going to be too expensive and not sufficient to meet customer demand. Brabazon House was identified as a suitable location in mid-2018, with the fit out of the building being completed and first employees moving in during June 2019. In last year's application we indicated that the costs associated with the Brabazon House facility would run into RY20/21. The additional costs incurred in the year are a continuation of last year's costs and include the fit-out of the facility to create a safe and secure Test lab and facilitate the TOC and Security Operations Centre (SOC). As per last year, we would like to reaffirm that the expenditure relating to Brabazon House does not have a shared service charge applied to it. Relevant resources linked to this include TOC staff as well as the testing services team that manage the

⁹ Rolling Out Smart Meters report - <https://www.nao.org.uk/wp-content/uploads/2018/11/Rolling-out-smart-meters.pdf>

¹⁰ Note, costs associated to TOC were allowed as part of the RY17/18 Price Control.

services provided to users across the existing CSP labs and prepared for the transition to DCC Test Labs. The non-resource activities we include in this year's application are:

RY19/20 Facilitating Additional Relevant Services

Brabazon Fit Out

Basis for application

The criteria in support of this activity remain the same as last year, and are based on complexity and volume:

- **Volume:** Brabazon House delivers a consolidated industry test facility, with the ability and flexibility to scale capacity to operate 24/7 and 365 days a year.
- **Complexity:** Brabazon House will be home to the TOC with an integrated Security Operations Centre (SOC). This will enable the end-to-end monitoring of the smart metering ecosystem, thereby enabling proactive intervention where required and ensuring continuous operations. This facility will operate under very strict security rules which is part of DCC's strategic security approach: [REDACTED] by design, [REDACTED] by assurance, [REDACTED] by proactive monitoring/management.

Added Value to Industry / Energy Consumers

The key benefits of this project remain the same as in RY18/19, and are (i) long-term costs savings to industry (and by extension to end-consumers) and (ii) provision of a consolidated test facility that will allow for critical programme testing, in-life testing, new feature development testing and fault triage testing. The ability for industry to carry out this level of testing ultimately reduces the risks of defects in a live environment thereby reducing the risk of consumers experiencing problems. As set out in RY18/19, the monetary benefit of the new test facility, the associated consolidation of business and testing activities, together with the closure of the Preston Brook office, is expected to reduce ongoing operational costs and generate cost savings of more than £90m, over the course of a ten-year period. This compares favorably with the business case approved by the DCC Board in previous years with financial benefits of £68m.

2.1.4 Additional Increase in Commercial Activities

DCC delivers its services by procuring and contracting with external service providers. These suppliers provide a wide range of services including those that support our core smart metering and switching Programmes, as well as consultancy, recruitment and auditing. Over the course of the past few years, DCC has witnessed a significant increase in commercial activities as we have seen our supply chain network grow to a total of 38 external service providers at the end of RY19/20. The main drivers behind this increase are the recent introduction of new services i.e. SMETS1 and Faster Switching. Whilst this ground was first raised in RY17/18, we note that the reuse of it in both last and this year's application is based on the additional activity that is involved in procuring, negotiating and contract managing these services.

More specifically, we note that in addition to last year's application, the following new key service providers were contracted to:

- Provide **Communication Services** for a sub-set of the SMETS1 cohorts ([REDACTED]);
- Operate **DCC's test lab**, which is responsible for the day to day operation of the test lab and replaces the test lab services undertaken by the existing CSPs and operator of the Cardiff SMETS1 test lab ([REDACTED]);
- Run the **Order Management System (OMS)** which is DCC's strategic tool set for the forecasting, ordering, returning and tracking of assets ([REDACTED]).

Alongside the increase in service providers and multi-Programme activity, we furthermore observe that the level of change has significantly increased on previous years i.e. approximately by 200%. In total, 238 CRs

and 186 PRs were either completed or progressed over since 2019, as opposed to an aggregate of 102 CRs and 40 PRs in previous years. We also observe a significant increase in procurement activity compared to previous years – in total 67 procurements were completed during RY19/20 compared to 26 procurements in RY18/19.

Finally, being very mindful that the costs we incur are borne by our customers, DCC has stepped up its efforts in ensuring that the performance of our supply chain is further enhanced. Therefore, we adopted a data-driven approach to track the performance of our supply chain across the year, so that corrective action can be taken where needed to ensure maximum performance is achieved.

Resources directly associated to DCC's increased level of commercial activity include all sub-teams within the commercial cost centre as well as additional roles in commercial finance. A detailed description of these teams is set out in the relevant sections of the submission. Non-resource spend we propose to include under this ground for this year's application directly relates to the use of **Supplier Relationship Management dashboards** to help track the performance of our suppliers.

Basis for application

The criteria and basis for application remain the same as previous years, noting that the certainty level of this activity has materially increased. The criteria are as follows:

- **Volume:** additional resource was required to manage the increase in the number of contracts and the subsequent increase in the number of change requests especially as a single change request from industry can affect multiple service providers.
- **Complexity:** the complexity stems from negotiating and managing contracts across a range of service providers across all our Programmes. The different nature of these new services in combination with more parties becoming dependent on one another for the timely delivery of services, has added to the complexity and interdependencies of DCC's Programmes.

Added Value to Industry and Energy Consumers

DCC is managing an increasing number of material service provider contracts on behalf of customers and end consumers. DCC's ability to manage these contracts and changes to these contracts in the most economic and efficient way ensures value for money for customers and consumers.

2.1.5 Further Increase in Security Requirements

Over the course of RY19/20, DCC's security function embarked on a strategic restructure to improve capabilities and effectiveness and to achieve alignment to the National Institute of Science and Technology (NIST) Cyber Security Framework (CSF). The move towards this framework was driven by the need to transform DCC's cyber security approach into a threat-led security operation rather than a project-based compliance operation. The previous structure of the security function was appropriate for DCC in its early start-up phase. However, over the last few years, DCC has matured into a fully operational organisation, with a network connecting millions of devices. Additionally, DCC is also delivering energy system IT change programmes, including Switching and SMETS1 meter migration which was not originally envisaged and has created additional demand on the security function's resources. The CSF is an industry and globally recognised approach to drive a modern security team to meet the types of threats that are both commonplace and typical of the sector we are working in. It supports the regulatory requirements and the needs of the National Cyber Security Centre (NCSC).

As part of this transformation, the function introduced a new team, Demand and Delivery. The additional resource was needed to move DCC to a threat-led security model and maintain overarching responsibility for the security architecture and assurance of the security elements of project and programme deliverables related to internal and external customer-facing services. A detailed description of the function's current structure and responsibilities is set out in the relevant section of the price control submission.

As part of the function's transformation, we also established a dedicated DCC IT Infrastructure, allowing DCC to manage its own security policies and remove any potential threat of our systems being compromised

via the Capita IT network. Our current IT services are hosted and operated through Capita's shared infrastructure. This operating model provided a suitable environment for the delivery of development programmes and services to customers during the early roll out of smart meters.

However, over the years we have matured as a business, increasing not only the volume of activities and programmes we operate but also the complexity because of the dependencies between those different activities and the security risks associated with them. Following an external security audit, it was recommended that the DCC would be advised to control its data and systems to deliver its licence obligations and ensure that these controls are managed effectively. Separate to that, it is critical that our systems provide more appropriate controls to ensure projects and market information are held in a wholly confidential manner, including separation from Capita.

As part of the function's move to a more threat-led security model, several desktop reviews were carried out to assess our crisis runbooks and plans versus good industry practice, in the event of a security or service incident. Given the importance and nationwide nature of our smart metering infrastructure, it is imperative that we operate and have in place the appropriate crisis management capability. This resulted in a crisis event simulation, allowing the business to rehearse the mobilisation, escalation and coordination of its crisis response to a high impact cyber security event or any other high-pressure event. The ultimate purpose of this activity was to assess our crisis management capability and identify and take forward areas for development. On that basis we propose to include in this year's application the following non-resource projects:

Ry19/20 Security Driven Change (Non-Resource)
DCC0011 EIT MSP Recurring - Discovery
DCC0131 EIT T&M
DCC0132 EIT LOI
DCC0132 EIT T&M
EIT AWS connectivity
EIT DCC0009 Workspace Agility
EIT modern desktop
EIT networking
EIT pilot
EIT wireless
Enterprise IT
Black Swan

Basis for application

The criteria and basis for application remain similar to those raised last year:

- **Volume:** in aggregate, the material level of increased activity involved with and actors engaging with the DCC, places a clear requirement for security to be scaled up and enhanced accordingly.
- **Complexity:** The additional complexity stems from the extent of parallel activity that is taking place as a direct result of the multi-programme and multi-release situation which DCC is operating under.

Added Value to Industry and Energy Consumers

In terms of benefits to the end consumer, security remains one of the key foundations on which the smart metering programme is built. It is vital to the success of the programme that the data of smart meters, households and industry is not compromised at any time. The restructure of the function significantly enhances DCC's security model and allows it to operate in an agile and proactive way, focusing on preventing threats from turning into incidents.

2.1.6 Facilitating and Supporting Future Releases

DCC first raised this ground in RY17/18. The rationale for this driver was to provide for the additional activity that arises as a direct result of multiple delivery drops and SEC releases – at the time, this included releases 1.2, 1.3 and 1.4. It was acknowledged that DCC would face a series of different programmes and future releases that would drive additional scope and activity.

DCC successfully delivered the **November 2019 SEC release**. This was the first enduring SEC Release to contain DCC System-impacting changes arising from SEC Modification Proposals. The November 2019 SEC release served as a wrapper covering several Change Requests in relation to post PIT e.g. SIT and UIT phases of the Release and System Integration. Failure to deliver the SEC System Release would have increased the backlog of change to be delivered in future release slots, delaying other mandatory change. RY20/21 further witnessed the successful delivery of the **June 2020 SEC release** which encompassed two SEC modifications. The release model agreed by the SEC Panel in 2018 is set out in the table below and envisaged the delivery of both SEC releases. The costs associated with the release activity relate to the additional resource that worked on the respective releases.

Basis for application

The application relating to multi-releases is on the basis of new grounds arising from the changing scope of the release and the delivery of the solution through the new release strategy. The detail of what this entails can be found in the main price control submission document. The criteria under this ground are the same as before:

- **Volume** – additional resources were required for the delivery of both releases.
- **Complexity** – The impact of this additional complexity associated with multi-release approaches has already been described at length in past price control submissions and past applications for additional BM. In addition to the wider complexity associated with the go-live multi-release strategy, DCC now also faces management of regular maintenance releases and potential emergency defect resolutions. **Risk / Volume** – As the number of Programmes, releases, and services increase, the sheer volume of risks also increases. This must be tracked, updated, and monitored as DCC moves through each additional release and project.

Adding value for energy consumers

This model is planned to represent a core resource pool which will focus on a single model at a time, moving off one to another as the years progress. Through this, we hope to continue to improve the way we deliver new requirements and functionality, streamlining the process and learning how to become more efficient over time. This ultimately will either decrease costs over time or delivery additional requirements for the same set of resource, thus delivering value for money to consumers.

2.1.7 Technology Driven Change – Production Proving and Network Evolution

Technology driven change was first raised as a ground in RY17/18. This ground sought to ensure the long-term evolution of the SMIP, allowing DCC to assess the opportunities and challenges facing the DCC service in the short, medium and long-term. Future changes to technical standards were recognised as an un-costed risk in the LABP, expecting DCC to work closely together with industry and Government to develop proposed solutions and consider cost implications prior to approval.

When technology driven change was first raised, one of the activities covered by this ground included the creation of a **Production Proving function**. This project has now completed an extensive proof of concept phase in which various implementation options have been considered. The project moved into the 'build and test' stage in April 2020 and is now targeted for deployment in August 2020. The functionality will be used in both the production and UIT environments, providing enhanced benefits and enabling early identification of defects prior to the release of firmware and DSP code changes to DCC Users. Costs associated with this activity include resource costs i.e. the Functional Production Proving team that will be used to ensure that

DCC Total Systems are working as expected for change Programmes, release upgrades, replicating in-life faults and health check monitoring.

More recently we have initiated the **Network Evolution programme**. The Programme is specifically aimed at evolving our infrastructure to cater for technology changes. It will support the long-term enhancement of our platform, simplify the network design with greater resilience and enable faster change. Enhancing DCC's core infrastructure is critical to the future of DCC's operations; re-assessing and upgrading our processes and systems in light of technology change is imperative improve the live service, reduce the operating costs and secure the continuity of a critical part of the UK's national infrastructure given the sunseting of old technology. A more detailed description of the Programme is set out in the respective section of this submission, however in summary it includes the following components¹¹:

- **DSP:** Designing and procuring data services which are secure and sustainable, with reduced operating cost, capable of rapid and cost-effective change in response to market and customer demand. This work will include investigations into how cloud computing and microservices could contribute to a new design for DSP to de-risk the overall re-tendering activity.
- **Communication Hubs & Networks:** Designing and procuring future-proof Communications Hubs and Networks (CH&N). We require a technology with a longevity of at least 15-20 years so that the full benefit of CH assets' operational life is realised from the point of installation. It should also provide roaming and switchable capability to increase resilience and minimise industry costs and inconvenience to the end consumer.
- **SMKI:** Procure a replacement or extension to the Smart Metering Key Infrastructure (SMKI) security service in a cost-effective way.
- **Test Automation.** It is important to note that the LABP foresaw different stages of the SEC and SEC mods and recognised that this could lead to a change in both internal and/or external costs. Test Automation, in part, responds to this by ensuring that cost implications of changes are understood and minimised where possible. The costs associated with Test Automation relate to staff specifically working on this sub-project of the Network Evolution Programme.

Additional activities that occurred under this ground during RY19/20 involve the use of emulators and a study that was specifically carried out to measure the amount of noise floor rise caused by Electricity Smart Metering Equipment (ESME) when installed and in operation. Both activities result directly from changes to either technical or industry standards, which were included in the LABP as potential uncertainties that could result in future additional costs.

Device emulators are used in the integration environments to enable DCC to test our systems against the latest version of technical standards. Technical Standards are the Smart Meter Equipment Technical Standards (SMETS) and the Great Britain Companion Specification (GBCS). These Standards are applicable to DCC systems and Smart Metering Equipment and are baselined twice a year as part of development of the SEC. The use of device emulators is vital as it tests the implementation of new standards before they are planned to be rolled out into the live Smart Metering environment.

In respect of the ESME Noise Rise issue it was recognised that specific electricity meters were generating interference in the form of Radio Frequency noise, causing loss of communications to the Smart Metering Wide Area Network (SMWAN) and therefore removing Smart functionality from the equipment in customer's properties. The study sought to identify permissible noise levels before agreeing new regulatory limits.

The non-resource activities we propose to include under this driver are:

RY19/20 Technology Driven Change (Non-Resource)
ESME Noise Rise Study
Emulators

¹¹ Test Automation is part of the Network Evolution Programme and is listed under the Facilitating and Supporting Future Releases section in this document.

Basis for application

The criterium underpinning our application for additional margin for this activity is:

- **Volume** – the activities set out above have led to a material increase in both resource and non-resource spend.
- **Complexity**: the increased complexity stems from the meter technical issues that are being encountered throughout the implementation of the SMIP; as well as the requirement to evolve the network in such way that it responds to the future requirements of a national infrastructure that is reliable and secure.

Adding value for energy consumers

Technology driven change supports the strategic view of how DCC can ensure that it continues to meet the evolving needs of its customers through the delivery and support of the UK's nationwide Smart Meter rollout now and in the future.

2.1.8 Increased Certainty around Service standard expectations

Operations continue to play a critical and central role in the overall implementation of the smart metering programme as it helps us to understand our customers' needs, optimise the strategy in response and bring service capabilities closer to customers. With the increasing number of SMETS2 and SMETS1 devices being installed onto our network, we have continued to invest in our operations and scale our capability to enable our platform to handle the current target of 45,000 installations per day.

As a function, Operations are accountable for the governance of the technical design authority for DCC enterprise and total systems, working with industry and service providers to address and deliver future capabilities and efficiencies. It also provides a single point of contact for all our customers, supporting their onboarding to the service, the incident management of issues through to resolution and the support for smart meter rollout planning. It has a key role in identifying improvements to our processes and our ways of working with customers. As such, it has helped us to measure customer effort scores for a growing number of customer journeys on our business systems. At present, we are measuring customer effort scores on the incident management journey, which will include nine journeys starting in July 2020.

As part of the October 2019 restructure whereby Design Services moved from Design and Assurance into Operations, we also note the set up a Design Authority capability, specifically aimed at customers and service providers to address technical debt and deliver future capabilities and efficiencies.

In order to be able to provide value for money for our customers on an ongoing basis, we have continued to invest in additional resource to deliver the functionalities set out above, in addition to the increased certainty of costs for staffing the Brabazon House test labs. Resource costs we propose to include in this application relate to staff within the relevant teams¹² within the operations cost centre, as well as customer engagement roles that sit within the Corporate Management function. In respect of the latter, we would like to note that these roles do not solely support our increased levels of customer engagement, but more importantly they help coordinate, identify and translate our customers' needs back into the business.

Finally, one of the most customer-focussed projects we have initiated during the year, is the delivery of the Order Management System (OMS). OMS is DCC's strategic tool set for the forecasting, ordering, returning and tracking of assets. When operating at scale, it is estimated that there will be in the region of [REDACTED] of assets in use. It is expected that the current DCC solution for OMS will not be fully SEC-compliant once volumes of Comms Hubs and customers increase. The current solution will be unable to scale effectively to meet the projected upturn in volume, of both Comms hubs and customers. Its functionality currently only provides for basic order and forecast capability and does not provide customers with the key functionality they need in order to manage their orders end to end. The proposed changes to the existing OMS will streamline the process and allow the current inefficiencies to be addressed, provide a single login

via the Self-Service Interface or web portal, and an integration capability to enable reliable data exchanges with CSP systems.

Basis for application

The criteria underpinning our application for additional margin for these activities remain similar to last year:

- **Volume** - the additional resources required to populate the Operations function in RY19/20 and forecast resources in future years, over and above what was originally envisaged in the LABP.
- **Complexity** – the level of customers' requests has not only increased in volume; the complexity has significantly increased as DCC is being asked to assist its customers with operational testing and provision of data insight on the orchestration of different types of service requests, for different types of devices.

Added Value to Industry and Energy Consumers

The added value to customers, and by extension consumers, stems from DCC's central role in the smart metering system. By taking central responsibility for the delivery of operational services that were previously spread across industry, DCC is able to realise economies of scale and ultimately cost savings that are then passed to its customers and ultimately consumers. The data that DCC is collecting on operational activity by customer is also invaluable, as customers are using that information and making changes to their operational activity as a result for improved efficiency.

2.1.9 People Transformation

The drivers for the material changes in DCC's People function were originally set out in the RY17/18 application. The transformation of this function followed the need to (i) proportionally increase the level of resourcing for this function (in light of DCC's overall headcount increase) and (ii) to define DCC's culture and ways of working. These changes were specifically introduced to increase staff retention, ultimately with the view of reducing recruitment costs and reducing the risk of lost 'corporate memory'. This year's drivers build on the additional activities that were initiated during RY18/19 to develop an "Employee Brand" to help improve the recruitment of talent, as well as put diversity and inclusion, and wellbeing initiatives at the forefront of our organisation. As a direct result of our efforts in this area, DCC has increased its "Disability Confidence" to level 2, driven up our ENPS score to +11, and secured a place into the finals of the Employee Engagement Awards as a great place to work. It is expected that the improvements in these areas will reduce short-term contractor utilisation and dependence on external training and development, which will provide a net financial benefit for our customers.

Resources specifically involved in this area are limited to staff within the People team. A detailed overview of the People Team's deliverables and objectives is documented in the internal costs section of the price control submission.

Basis for application

The criteria and basis for application remain the same as those referred to in previous years' submissions, and include:

- **Volume:** the growing number of staff in DCC and the increased people requirements of a larger organisation delivering more complex Programmes requires a corresponding increase in the people team.
- **Complexity:** the work of the people team has increased in complexity as it looks to develop a strategic workforce plan for the future and a culture and employee value proposition that will enable DCC to attract and retain the talented staff that it needs and reduce the cost of recruitment over time.

Added Value to Industry and Energy Consumers

In terms of the benefits to our customers (and by extension the end consumer) we note that DCC's success is largely down to the quality of its staff. As a maturing business, it is critical to have a workforce that is

engaged, well-supported and motivated. This is of immense value to support and respond to the demands of the rapidly changing and complex nature of the Programmes we run. Recruiting and retaining talent is therefore paramount to the success of our business. This has required DCC to invest in and improve its recruitment processes and enhance its people management capability to ensure continuous development and improvement of staff. The development of a strong culture within DCC allows the organisation to attract and retain high quality staff whilst reducing the actual costs of recruitment.

2.2 New Scope requirements – Enduring Change of Supplier (ECoS)

As part of RY18/19 BMA submission, we informed Ofgem of a range of “New Scope – Future Activities”, which DCC anticipates taking place in future years. These were rejected by Ofgem on the basis that there was insufficient certainty around the associated costs. It was however agreed that DCC would re-apply as and when certainty levels for the respective activities had sufficiently increased. One of those activities we would like to apply for additional margin on, includes the introduction of the Enduring Change of Supplier (ECoS) Programme.

Enabling energy customers to change supplier securely and easily is one of the fundamental purposes and benefits of the smart metering rollout. It is underpinned by DCC’s change of supplier process. An essential component of this is the replacement of certificates on devices (primarily meters) that identify the responsible supplier. When the original technical and security architecture for DCC was developed, within the government’s Smart Metering Implementation Programme, it was decided that DCC should implement a temporary solution for change of supplier, known as Transitional Change of Supplier (TCoS). The rationale was to avoid requiring additional change from energy suppliers during the mass roll-out of smart meters. While designed and successfully operating at a very high standard of security, TCoS is not fully aligned with the Trust Model for smart metering, primarily because TCoS functionality is provided by the Data Service Provider (DSP). It was always intended that TCoS should be replaced as soon as practicable by an Enduring Change of Supplier process, referred to as ECoS.

In May 2019, BEIS published a consultation (based on DCC’s recommendation) directing DCC to plan, develop and implement the ECoS2 solution. ECoS2 encompasses a solution whereby Change of Supplier events are validated, processed and executed by a centralised CoS Party service provider. A draft delivery plan for consultation was issued in January 2020 to the SEC Panel and all SEC Parties, followed by a final plan at the end of March 2020. More detail on the scope and delivery plan of the ECoS Programme is set out in the relevant section of this submission.

Over the course of RY19/20, the Programme’s activities have primarily focussed on the procurement activities that are necessary to support the Change of Supplier (CoS) Party’s following aspects:

- Design Build and Test (DBT);
- Hosting; and
- Service Management.

The costs associated to the Programme for RY19/20 solely relate to dedicated DCC staff working on this Programme.

Basis for application

The criteria and basis for application for the ECoS Programme are:

- **Timelines:** several risk assessments were undertaken over the course of RY19/20, together with consultations with stakeholders and Government, to develop and agree an LC13 delivery plan that meets the requirements of all interested parties in this Programme; and
- **Volume:** the activities and deliverables set out in the ECoS LC13 Delivery plan result in a material change of scope of the Programme.

Added Value to Industry and Energy Consumers

When a consumer switches energy supplier, the security information held on the Smart Meter needs to be changed so that it relates to the new energy supplier and not the old one. The processes that are currently in place for managing the change of security information held on Smart Meters are referred to as the “transitional change of supplier” processes and are administered by part of the DCC Systems known as the “change of supplier party” or “CoS Party”. Replacing this process by an enduring solution that validates, processes and executes Change of Supplier events centrally is required to enhance security.

3 Proposed Adjustments to the BMA

DCC considers that the activities included in this application are in scope of the LABP, and that the additional costs relate to elements and activities that were part of DCC’s remit at the time of the Licence bid, but not fully scoped or costed. We also note that in accordance to our Licence, the relevant activities that form the basis of this application meet the Materiality Threshold¹³ either through:

- a discrete material change; or
- an aggregation of non-material incremental changes.

In line with previous years’ applications, we are proposing that a 15% margin is applied to all internal costs that are associated to the relevant activities that form the subject of this application. We are of the opinion that a 15% margin is acceptable given the nature and level of risk and uncertainty that is associated to the activities we carry over the course of our Licence term. A 15% margin also represents the same level of margin that was agreed at the time of the Licence bid, which was established through a competitive tender.

DCC confirms that this notice is being served on 31 July 2020, which is consistent with the requirement to serve the Notice at any time during the month of July (“the Application Window”). In order to ensure that the margin is placed at risk against the RY which is the closest to that of delivery of the activity, we are proposing the following adjustment dates to the previously baselined profile of margin:

- **RY19/20** - Adjustment Date of 1 April 2021;
- **RY20/21** - Adjustment Date of 1 April 2022; and
- **RY21/22** - Adjustment Date of 1 April 2023

The table below provides a summary of the calculations for Relevant Adjustment¹⁴ on the basis of the relevant activities included in this document. Detailed calculations are contained in the accompanying documents ‘201920 – BMA supporting data Resource’ and ‘201920 – BMA Supporting data Non-Resource’.

£m	2020	2021	2022
Additional resource cost	3.205	4.867	23.628
Additional Non-Resource cost	20.959	3.617	1.438
Total			
BMA value resource ¹⁵	0.619	0.940	4.566
BMA value non-resource ¹⁶	3.761	0.650	0.258
Total	4.380	1.590	4.824

¹³As required by Licence Condition 36, Appendix 2, Part A, A3

¹⁴ As required by Licence Condition 36, Appendix 2, Part A, A5(a)

¹⁵ This is calculated by applying a mark-up of 15% on the additional costs plus overhead