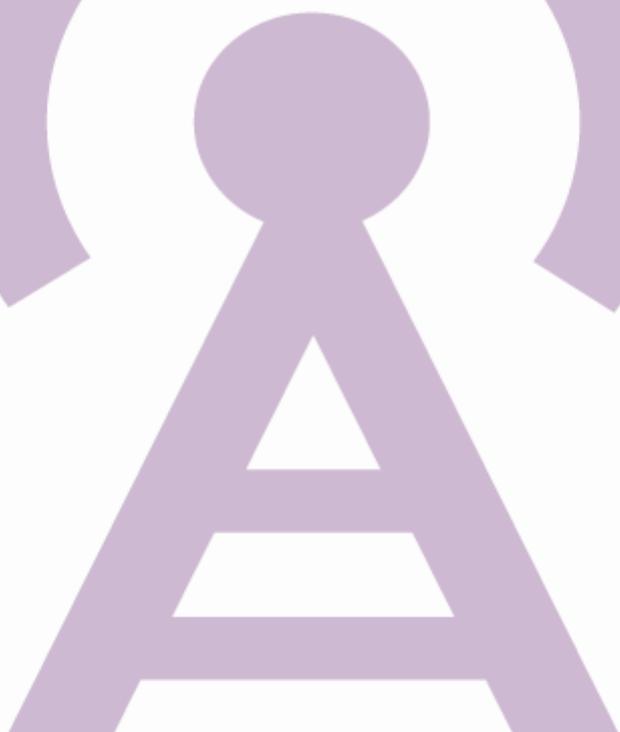


RY20/21 – DCC Baseline Margin Adjustment (BMA) Application

REDACTED FOR WEBSITE



1 Executive 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.

RY20/21 has been another year of remarkable progress in the roll-out and upgrade of our core smart metering programmes. Since the start of the Covid-19 pandemic, more than 7.6m smart meters have been added to the DCC network, bringing the total at the end of reporting year 20/21 to 11m meters. This is a huge achievement in the context of a series of national lockdowns, with DCC’s staff, service providers and customers working tirelessly to find workable solutions to maintain the pace of roll out in the most challenging of circumstances.

In tandem, steady progress was made on the SMETS1 programme with the deployment of both the Middle Operating Capability (MOC) and Final Operating Capability (FOC) – together circa 3.9m meters were enrolled onto DCC’s systems by the end of the reporting year. On Ofgem’s Faster Switching programme, we successfully responded to a managed replan of the Design Build and Test phase – at industry’s request – and we are on track to launch the service in summer 2022.

In reporting year 20/21, DCC has made significant progress to ensure that customers are not adversely affected by the sunsetting of old 2G technology, and the service they receive continues to improve. Finally, DCC has also continued to liaise very closely with industry to understand their business needs for the Data Services Provider (DSP) in the future.

Over the coming years, our priority will remain the roll-out of smart meters across Great Britain. This is to make sure that as many consumers as possible can benefit from a smart meter. We will continue to scale the live service to support the roll-out while maintaining a stable, reliable and secure platform for our customers. Following government’s January 2021 direction to DCC to produce a Network Evolution implementation plan. In addition to this evolution of our core capability, required to manage the risk of disruption from the sunsetting of old technology, we have also been instructed by government to play a role in the Enduring Change of Supplier (ECoS) programme and the introduction of Market Wide Half Hourly Settlement (MHHS).

Overall, DCC considers that these activities have led, and will continue to lead, to a material change in 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 Licence Application Business Plan (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, 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 as 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. 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. For that reason, the BMA model does not take account of the switching costs. To avoid any form of overlap, and where no clear and eligible ground exists, we have also excluded any baseline costs belonging to roles that primarily sit under the Switching programme. Separate arrangements were put in place for the Switching Programme, including a 12% margin rate applicable to all associated internal costs.
- **Identifying those costs which are excluded or ineligible for the application (No Grounds):** 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. As is the case with rejected grounds, roles that either missed the "window of opportunity" or are deemed not eligible for additional margin, are labelled in the BMA model as "**No 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.

Drivers / Activities excluded from the RY20/201 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

• Supplier Relationship Management dashboard
• Black Swan Crisis Management
• Production Proving
• ESME Noise Rise Study
• Emulators
• Facilitating and Supporting Future Releases
• Order Management System

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 RY20/21 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.

The BMA mechanism was set out in the Licence with the specific view to recognise the level of uncertainty associated to the nature, risk and scope of DCC's mandatory business over time. It is intended to ensure that DCC is compensated for when material changes emerge to the scope, timescales and/or volumes of the mandatory business as envisaged at the time of the LABP. The LABP recognised that throughout the duration of the SMIP, changes to the scope, timescales and volumes were likely to take place, and would lead to a consequential change to resources and costs. For that reason, the LABP included a list of potential activities i.e., risks and uncertainties, which are material in nature, and which were excluded from the baseline costs, due to these costs being uncertain at the time. Ofgem has historically approved DCC's BMA applications where we demonstrated that the costs for some of these LABP uncertainties had materialised.

As referred to in our introduction, we are fully aware of our customers' concerns about increasing costs. It is important to note that these costs are largely due to the expansion of our remit where we have been asked to undertake new activity. The BMA has, consequentially, increased over the same period reflecting the fact that Baseline Margin is calculated as a proportion of Internal Costs.

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:

- Seven continuations of variations included in previous years' BMA applications, where activity has continued into RY20/21 and/or thereafter; and
- Three variations that relate to an activity that is being raised for the first time.

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, DCC has a more accurate view of the required level of

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)

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 Service ⁵	SMETS1 Programme	RY16/17
Increased Certainty Levels on the Development and Delivery Network Evolution Programme	Network Evolution Programme	RY19/20
Increased Certainty on the development and delivery of the ECOS Programme	Enduring Change of Supplier (ECOS)	RY18/19
Increased Certainty on Facilitating Additional Relevant Services	DCC Test Labs	RY18/19
Increased Certainty in Security Requirements (Security driven change) ⁶	Transformation of DCC's Security model	RY17/18
	Enterprise IT	RY19/20
Increased Certainty Service Standard expectations ⁷	Service standard expectations	RY18/19
People Transformation ⁸	People Transformation	RY17/18
New Scope – Future Activities	MHHS	RY20/21
	DNO Transformation Programme	
	Comms Hub Programme (Mandated GBCS updates)	

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. However, where a particular role has been re-allocated / re-assigned to a different activity, we may apply for margin against that role, subject to the associated activity being a ground or driver that Ofgem has historically approved, or where DCC considers it is eligible under the BMA.

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

SMETS1 meters are the first-generation smart meters which were not designed with the same level of compatibility and interoperability 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 adoption of smart meters will not be realised.

⁵ This is not one of the new variations, but there is additional activity and justification for change in RY20/21 hence an explanation has been provided.

⁶ As above in point 5.

⁷ As above in point 5.

⁸ As above in point 5.

In the earlier stages of the Programme, notably over the course of RY18/19, it became increasingly apparent that the complexity of the SMETS1 solution was much greater than originally envisaged; industry feedback did not reflect actual meter behaviour and 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. Subsequent restructures of and changes to the SMETS1 delivery plan postponed the phased go-live of the different cohorts. The go-live of the Initial Operating Capability (IOC) was set for July 2019; the Middle Operating Capability (MOC) was split into the release of two separate cohorts, respectively for the MDS and Secure cohort in March and June 2020. The revised timescales proposed a go-live for the Final Operating Capability (FOC) in July 2020.

Whilst DCC has continued to make significant progress on the delivery of the service over the course of RY20/21, a combination of, slower than forecast migrations by suppliers, undisclosed device technical issues and complexities around testing have meant that the Programme was subject to further delays:

- **MOC:** the capability to migrate and operate MOC Secure devices went live in August 2020, around 6 weeks later than originally planned. This was partly due to extra time required in SIT to resolve some critical meter defects which were discovered late in testing and partly to stability issues in the production environment.
- **FOC:** During SIT in early 2020, a significant issue was uncovered which related to the L+G communications hubs behaving unpredictably during migration. The hubs were not built to undergo a migration and DCC discovered that a significant proportion of these hubs went into a suspended state for 7 days during which time they would not respond to any requests. Detailed technical analysis indicated that the issue was related to how the hubs responded when the mobile network terminated connections during migration. Despite intensive diagnostics, it became apparent that an enduring fix or workaround for the 7-day delay issue may not be forthcoming. The decision was made to change the migration solution to cope with hubs going into a 7-day delay and accept that FOC migration would behave differently to other cohorts. On this basis, a new plan was developed with a revised go-live date, including the proposal to introduce a minimal viable product followed by multiple drops thereafter. The minimal viable product was released at the end of February 2021. Further releases are planned in RY21/22 to deliver remaining functionality.

Parallel to that, the Programme has also identified that a second core release was required to supplement the May 2019 release to upgrade a few areas within IOC and MOC. RY20/21 has also sought to address a range of Device Model Combination Testing (DMCT) issues / defects, across all capabilities, to help remove any blockers to the migration of installations within scope of DMCT. Finally, new rules were imposed during RY20/21 which meant that DCC is now required to carry out device security testing in order to assess the risk of vulnerabilities in SMETS1 devices as well as make an economic case to BEIS for where it wishes to migrate devices that are strictly not covered by current SEC rules.

As per the case in previous years, most resources working on the Programme are dedicated staff working solely on the SMETS1 programme. The full detail on the level of resources that are driving variances under this Programme are set out in the associated BMA model. The costs associated to the Programme include resource and non-resource costs for RY20/21. In terms of non-resource costs that we would like to include in this year's application, it is worth noting that most of these costs are based on the extension of activities that were initiated in RY19/20. In summary, and as described above, the focus of these activities was on the continued external consultancy support to the Programme as well as the technical build of the capability to support the testing and migration of the specific cohorts. The non-resource costs relevant to this ground are:

RY20/21 SMETS1 (Non-Resource)
SMETS1 delivery partner - REDACTED
SMETS1 Migration Reporting System
SMETS1 migration - REDACTED

Interop checker
SMETS1 - REDACTED
SMETS1 Requesting Party – REDACTED
SMETS1 migration
Testing
DCCT0184 - SP Smart Meter Assets
SMETS1 FOC SIT & MT Auditor
SMETS1 - REDACTED
FOC uplift 2.0
SMETS1 Device Security Testing
Migration testing
MOC Secure
SMETS1 - REDACTED
REDACTED
REDACTED ⁹
Discovery and Transformation - REDACTED

Basis for application

The criteria and basis for our application in respect of SMETS1 activities are largely in line with those in previous years:

- **Complexity and Volume:** 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, the compliance of meters to the original design spec, 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:** as per the case in previous years, DCC is subject to extremely strict timescales which are set out in the SMETS1 delivery plan (LC13), as consulted on with industry and approved by Government. It should also be noted that during this period, energy suppliers have had their deadlines for migration of SMETS1 meters extended. This has resulted in suppliers not bringing forward meters for migration in line with their original forecasts and will result in DCC's migration capability needing to be in place for longer than was anticipated.

Added Value to Industry and Energy Consumers

The Programme's benefits to industry stem from the integration of SMETS1 meters into the DCC network. This enables SMETS1 meters to operate in a 'smart mode' and allows consumers to maintain the smart functionality of their meter on a change of supplier. In practical terms, this removes the risk and cost for the new energy supplier, on a change of supplier event, to replace the existing SMETS1 meter with a SMETS2 meter to maintain interoperability. Over the years, the planning of the SMETS1 migration has often been interrupted, for reasons outside of DCC's control, for the purpose of minimizing any disruptions to our customers. SMETS1

⁹ REDACTED is currently scaled to 1/5 of FOC required to deliver the traffic generated by the 6.7 million meters it is responsible for. It needs to scale up to full capacity to accommodate the migration of these meters by the end of 2021. Delays to REDACTED's scaling will lead to delays in the migration of these meters. This non-resource item was erroneously allocated to the Security cost centre.

meters are migrated onto the DCC network 'over the air', and the work was able to continue despite the disruption caused by the pandemic. Both MOC and FOC cohorts went live with over 99% right first-time performance. In December 2020, over 600,000 meters were migrated onto the DCC network – one day alone saw 91,000 migrated. Because of these great strides forward on migrating SMETS1 to DCC's secure network, we are delivering net benefits to customers of more than £500m.

2.1.2 Increased Certainty Levels on the Development and Delivery Network Evolution Programme (NEP)

The Network Evolution Programme (NEP) was first justified as a separate programme in last year's price control submission. It was also first raised in RY19/20 as a new BMA ground that had led to a material change in scope of DCC's core business activities. The NEP is specifically aimed at supporting the long-term enhancement of our platform, simplify the network design with greater resilience and enable faster change.

The NEP is driven by the obsolescence of certain digital technologies and the advances in others which continue to reshape the energy landscape. We must make sure that the DCC network keeps pace with and prudently anticipates that change, while also maintaining continuity of service to the energy industry as contracts with service providers expire. These issues are being addressed urgently for a variety of reasons:

- The contract for the provision of the Data Services Provider (DSP) service with CGI is coming to an end and must expire by October 2024. The first of a maximum of three one-year extensions is now being negotiated.
- The existing 2G/3G networks, in use in the South and Central regions, have been superseded by the introduction of 4G networks, with 5G on the horizon. There is a high probability that the older networks will no longer be supported or maintained in the medium term and the DCC will need to modernize its communications provisions accordingly
- SMETS1 and SMETS2 assets have a 15-year life, so the earlier enduring technology can be made available in the ecosystem, the lower the amount of scrappage and the longer the economic life of assets
- REDACTED's contract for the Smart Metering Key Infrastructure (SMKI) security service, also known as Trusted Service Provider (TSP), is due to expire in April 2022. A new tactical solution will be implemented before this date on a 3 year plus 1-year possible extension agreement whilst an enduring TSP Programme has been set up to re-procure all TSP Services by April 2025.
- There is a continuing need to drive competition within the supply chain to reduce costs, improve service and accelerate continuous improvement by, for example, adopting a future testing strategy which provides automated set up.

As per RY19/20, this year's structure of the programme is as follows:

- **Network Evolution DSP:** Designing and procuring data services which are secure and sustainable, with a 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 the Data Services Provider (DSP) to de-risk the overall re-tendering activity.
- **Network Evolution Communication Hubs & Networks (CH&N):** Designing and procuring future-proof communications hubs & networks. DCC requires 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.
- **Network Evolution Trusted Services Provider (TSP):** Procure a replacement to the Smart Metering Key Infrastructure (SMKI) security service in a cost-effective way. This started in RY20/21 with a tactical re-platforming of existing SMKI services to ensure business continuity and activity to address the longer-term TSP requirements will start in RY21/22.

- **Network Evolution Test Automation:** Designing and implementing automated testing of the SEC releases to achieve faster and lower-cost testing with additional enhancements to UIT Proving that will allow DCC to confirm the efficacy of changes.

In January 2021, BEIS directed DCC under LC13B to consult on and submit plans for the CH&N and DSP Programmes. As to the TSP Programme, DCC initially secured an exemption to LC16.6, which requires DCC to submit to Government, business cases for Programmes with a spend of more than £10m. However, due to the projected costs now being more than the £10m threshold, a business case will also be prepared for the TSP Programme.

The costs associated with the NEP include resource and non-resource costs for RY20/21. The full detail on the level of resources that are driving variances under this Programme are set out in the associated BMA model. With the NEP still being in the early phases of the design and development, a large proportion of resource costs in RY20/21 went to setting up the regulatory and commercial strategy to ensure that the deliverables, including any forthcoming procurements, conform to the relevant regulatory requirements in our License. Additional resource was dedicated to support the gathering of technical, operational and security requirements and the assurance of the Programmes' design of systems and processes.

As to non-resource costs, the spend on the CH&N Programme in RY20/21 was related to legal assurance of the multi-billion procurement in this space, the temporarily fill of specialist resource to support with the economic and financial modelling of the LC16 business case and assessment of bids, as well as an independent study to investigate the potential risk of network interference through the use of 4G. The DSP sub-programme was subject in RY20/21 to third party assurance i to help inform the design, procurement and delivery of the refresh. Finally, non-resource cost was also assigned to the TSP sub-programme, mainly for the purposes of negotiating a replacement solution of REDACTED SMKI platform. The non-resource activities we include in this year's application are:

RY20/21 NEP (Non-Resource)
Network Evolution – REDACTED
Legal advice/support - CSP N
Benchmarking - REDACTED
DSP Future Roadmap
Network evolution - REDACTED
REDACTED Assurance
Network Evolution - REDACTED
NextGen design assurance
Network Evolution - REDACTED

Basis for application

The changes introduced by the NEP represent a material change to the scope of DCC's work, as envisaged and set in the LABP. More specifically, the criteria and basis for application are:

- **Timescales and Volume:** DCC is accountable for the delivery of the Programme's deliverables in accordance with challenging and strict timescales as set out in the LC13 delivery plan. The requirements and deliverables agreed with Government through the NEP delivery plans represent material changes to the architecture of DCC's systems, process and network.

Added Value to Industry and Energy Consumers

The key benefit of the Programme ultimately stems from safeguarding the Government's SMIP business case by strengthening the system against future technology changes, including the sunset of 2G and 3G technology. The NEP is driven by digital technology which continues to reshape the energy landscape. We must make sure that the DCC Network keeps pace with and prudently anticipates that change, while also maintaining continuity of service to the energy industry as contracts with service providers expire. For the CH&N Programme alone, the Government has calculated that the overall net benefit, until 2039, to industry of taking forward the recommended option¹⁰ is approximately REDACTED. The Strategic Outline Case for the DSP sub-programme is due to be approved in September 2021.

2.1.3 Increased certainty levels on the Development and Delivery of the Enduring Change of Supplier (ECoS)

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 ECOS Programme seeks to replace the existing "transitional change of supplier" (TCoS) process to an enduring central solution that validates, processes, and executes Change of Supplier events. At the time of developing the original technical and security architecture for DCC, the recommendation was to implement a temporary solution for change of supplier, in order not to impose additional change to energy suppliers during mass roll-out.

In RY19/20, DCC successfully applied for the first time for a re-adjustment of the baseline margin based on the activities arising from the Enduring Change of Supplier (ECOS) programme. The focus in RY19/20 lay on the development and consultation of the Programme's delivery plan (LC13), whereas the efforts in RY20/21 sought to enact the initial phases of the plan as approved by Government at the end of March 2020.

The key activities in RY20/21 included:

- Issuing RFPs relating to the three procurements, including the provision of:
 - An IT solution to manage the activities relating to Change of Supply (and ongoing support thereof)
 - A hosting platform to support the ECoS solution; and
 - A managed service agreement for ECoS.
- Preparing for the procurement phases – Design, Build Test (DBT) and combined Hosting and Service Management

Looking ahead into future years, the Programme is aiming to onboard all new suppliers by July 2021, with an expected go-live date of June 2022.

Programme resource levels are drawn from a range of cost centres including technical and operational input as well as support from programme management, commercial, customer engagement and regulatory support. The full detail on the level of resources that are driving variances under this Programme are set out in the associated BMA model. The costs associated to the Programme are exclusively resource costs for RY20/21.

Basis for application

The changes introduced by the ECoS Programme represent a material change to the scope of DCC's work, as envisaged and set in the LABP. More specifically, the criteria and basis for application for the ECoS Programme are:

¹⁰ Option 3 seeks to extend SMETS1 and SMETS2 contracts as long as commercially viable.

- **Complexity and Volume:** the complexity and volume of the deliverables set out in the final ECoS LC13 delivery plan¹¹ constitute a material change to DCC's systems.
- **Timelines:** DCC is held responsible for the delivery of the Programme's deliverables in accordance with the timescales agreed in the LC13 delivery plan.

Added Value to Industry and Energy Consumers

The direct benefits from this Programme are the enabling of energy customers to change supplier securely and easily. An essential component of this is the replacement of certificates on devices (primarily meters) that identify the responsible supplier.

2.1.4 Increased Certainty on Facilitating Additional Relevant Services (Brabazon House)

The set up and maintenance for facilitating both the Technical Operations Centre (TOC) and the new test lab facilities were first raised in the RY18/19 price control submission. In that same year, DCC also justified for the first time the grounds for adjusting its margin levels based on the costs associated to this.

The provision of testing services originally sat within the FSP contracts¹², making such services only available for a temporary period of 12 months, extendable on a monthly basis. The approach to making these service available to testing participants on an enduring basis also directly responds to the regulatory requirement within the SEC¹³. As DCC transitioned from a single to a multi-Programme delivery partner, it became apparent that, as per original assumptions in the LABP¹⁴, this approach to testing needed to change in order to accommodate the range of services and solutions that are being offered to industry. Following a rigorous impact assessment, we concluded that the costs of the FSP-led testing service should be reduced and replaced by an integrated end to end test facility, run by DCC. 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.

RY20/21 was the second year of operation for the test labs. Most of the cost variances during RY20/21 were driven by the higher than anticipated volume of testing activities for both SMETS1 and SMETS2 meters. More specifically, the delays to the SMETS1 Programme, and the challenging timescales associated to the delivery of the Programme, caused a significant peak in testing activities over the course of RY20/21. As such, a large part of the costs making up the variances in this space were caused by the requirement for the test lab service provider to carry out overtime during weekends. It should be noted that whilst overtime provisions are planned-in to the service contracts, it is not possible to include such items in the Price Control forecast owing to the certainty criteria and as such this causes an apparent variance.

The costs associated with the Programme include resource and non-resource costs for RY20/21. The full detail on the level of resources that are driving variances under this Programme are set out in the associated BMA model. As per previous years, specific resources associated to this driver mainly include TOC staff as well as the testing services team that manage the 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:

RY20/201 Facilitating Additional Relevant Services
Brabazon Rent

¹¹ The consultation conclusion documents is available on the Smart DCC website: [Consultation on the Delivery Plan for Enduring Change of Supplier](#)

¹² Schedule 6.2 of the FSP contracts (Testing and Acceptance)

¹³ Enduring Testing Approach Document (ETAD)

¹⁴ Section 8, Risks and Uncertainty

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 accommodates the TOC with an integrated Security Operations Centre (SOC). This enables 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: Secure by design, Secure by assurance, Secure by proactive monitoring/management.

Added Value to Industry / Energy Consumers

The key benefits of this project remain the same as in previous years 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 explained in the previous two years, 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 REDACTED, 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 REDACTED.

2.1.5 Further Increase in Security Requirements

As explained in last year's price control submission, RY19/20 marked a strategic restructure of DCC's security function so that it is able to improve capabilities and effectiveness and to achieve alignment to the National Institute of Science and Technology (NIST) Cyber Security Framework (CSF). The shift 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, offering a range of different services across different programmes.

One of the projects that shaped last year's transformation was the establishing of a dedicated DCC IT Infrastructure, Enterprise IT (EIT), allowing DCC to manage its own security policies and remove any potential threat of our systems being compromised via the Capita IT network. Before RY19/20, our IT services were hosted and operated through Capita's shared infrastructure. However, as DCC continues to grow as a multi-programme business and accordingly expands its IT estate, there is the risk that the original IT infrastructure is being compromised over time. The same conclusions were found through an external security audit – carried out in RY19/20 – which recommended that our systems provide more appropriate controls to ensure projects and market information are held in a wholly confidential manner, including separation from Capita. For that reason, it is critical that appropriate security measures are in place to safeguard its staff and the confidential data that resides within. A significant variance to the costs in this area in RY20/21 are mainly a continuation of the work that was initiated in RY19/20 and includes a mix of both dedicated EIT resource costs as well as additional non-resource spend to ensure that entire IT infrastructure – including systems, networks and hardware/laptops – are appropriately upgraded and segregated from the rest of Capita's infrastructure, in the most secure possible way.

As part of the same transformation, the activities in RY20/21 also focused on strategic improvements to DCC's security monitoring capability. At present, Capita remain the solitary security monitoring capability that DCC

have for its enterprise tooling. It is essential, for that reason, that DCC improves its security monitoring capability, with the recommendation being to provision a seasoned supplier for a short-term period to provide the expert – 24/7 – monitoring capability required on DCC’s enterprise estate. The objectives of the Security Operations Centre (SOC) service is to put in place tooling and service wrap to bring all security incident management into one place, visible from a central point within the Technical Operations Centre. This will provide a capability to monitor, detect and respond to security incidents and events across DCC’s enterprise IT network and also allow for a holistic view of security incidents across the entire Smart Meter ecosystem.

The costs associated to the Programme include resource and non-resource costs for RY20/21. The full detail on the level of resources that are driving variances under this Programme are set out in the associated BMA model. The non-resource activities we include in this year’s application are:

RY20/21 Security Driven Change (Non-Resource)
Enterprise IT
Enterprise Security
Enterprise IT - Scope Addition
Enterprise IT - Security Additions
TOC - Enterprise Security
DCC0011 EIT MSP Recurring - Discovery
BAU EIT Network
BAU EIT Services
BAU - ITES - Laptops
BAU - ITES - Managed LAN Infrastructure
SOC service
EIT SOC Setup
SOC Service IT
SOC service
REDACTED Threat Intelligence

Basis for application

The criteria underpinning our application for additional margin for these activities remain similar to previous years:

- **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 added complexity stems from DCC’s evolving role into a multi-Programme business over the years. Whilst the security architecture was fit for purpose in the initial years of the SMIP, the growth of the business and the recent introduction of new services, together with the increased variety of devices, has led to the development of a more elevated set of requirements that is needed to accommodate the future of the business and the national infrastructures we run.

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. These benefits are no different to the ones set out in previous years and are absolutely paramount to support a national infrastructure that remains secure at all times.

2.1.6 Increased Certainty around Service standard expectations

As per previous years, our operations function plays a central role in the overall implementation of the smart metering programme. It is critical in helping in to understand our customers' needs, optimise the strategy in response and bring service capabilities closer to customers. As a function, it is accountable for the governance of the technical design authority for DCC enterprise and total systems. It works 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. In summary, it has a key role in identifying improvements to our processes and our ways of working with customers.

At the time of writing more than 7.6m smart meters – both SMETS1 and SMETS2 – have been added to the DCC network since the start of the Covid-19 pandemic. This brings the total at the end of reporting year 20/21 to 11m meters. As the volume of SMETS2 and SMETS1 devices connected to our network will increase over time, DCC will need to continue to invest in its operations and scale its capability accordingly to enable its platform to keep up the pace of enrolment.

Over the course of RY20/21, as well as looking forward to RY21/22 and beyond, both the size and capabilities of the operations function is expected to grow. The incremental growth of the function over the years is explained by the introduction of the new services i.e., Network Evolution, ECoS and MHHS, and the challenges and complexities that these bring in terms of operational requirements that are different to those for the existing services i.e., SMETS2, SMETS1 and Switching. Also, because of these complexities, customers are encountering more technical aspects that require bespoke help and clarification. As a result, engagement between DCC and its customers has become much more frequent; the increasingly technical nature of the queries from customers, has driven the demand for the engagement to be more technical and bespoke. In parallel, increased effort and incremental resource was assigned to our service operations capability that delivers the service to our customers, with specific focus on managing incident and problems, as well as logistics and capacity/environment management.

DCC also incurred costs on the expansion of the Technical Operations Centre (TOC) function. The TOC has been justified, and approved by Ofgem, in previous years. The TOC seeks to ensure that service availability is secured through the monitoring and management from event managements¹⁵. The overall function is to maintain optimal network operations across a variety of platforms, mediums, and communication channels.

The costs associated with this area include resource and non-resource costs for RY20/21. The full detail on the level of resources that are driving variances under this activity are set out in the associated BMA model. The non-resource spend we include in this year's application is:

RY20/21 Increased Certainty around Service standard expectations (Non-Resource)
TOC - ES
TOC Support
Environment Impact Assessment

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 reinforce the Operations function in RY20/21 and forecast resources in future years, over and above what was originally envisaged in the LABP. The LABP always foresaw that Operational Service Requirements (OSR) would vary in time and would

¹⁵ It has also proven to be extremely valuable in assisting with additional reporting required under SEC modification 122.

need to be updated to reflect the changing demands on the DCC. The LABP also acknowledged that this could result in an increase to Internal Costs.

- **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. This complexity is further compounded by the fact that new services are being scoped and developed in parallel with the operational running of live services. In part, these new services need operational service requirements that are inherent and bespoke to the nature of these programmes.

Added Value to Industry and Energy Consumers

The added value to customers, and consumers more widely, 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.

2.1.7 People Transformation

RY20/21 saw a negative variance in terms of resource spend against DCC's People function. An incremental spend is however projected in future years, based on the same drivers that were first presented to and approved by Ofgem in RY17/18. In summary, the transformation of this function since RY17/18 was based on the requirement to (i) proportionally increase the level of resourcing in light of DCC's overall headcount increase, and (ii) to define and maintain 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'.

The future variance in this space seeks to further expand the capability of DCC's People function in line with the variables set out above. More specifically, the People team's function is set to support the development of functional and cross-functional people capability in DCC, as well as manage recruitment and talent acquisition, in such way that DCC continues to be a great place to work. The overall improvements and benefits of this are a reduction in short-term use of contractors and dependence on external training and development, which will provide a net financial benefit for our customers.

The costs associated with this area include resource and non-resource costs for RY20/21. The full detail on the level of resources that are driving variances under this activity are set out in the associated BMA model. Non-resource costs in RY20/21 specifically focused on reviewing and adjusting our reward management processes with the view of making it more robust and aligned to the external market. This will ensure that our employees are treated more fairly and equitably, which in turn is expected to have a positive effect on talent acquisition and attrition. The non-resource costs we include in this year's application are:

RY20/21 People Transformation (Non-Resource)
People – HR consultancy
DCC approach to pay & reward

Basis for application

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

- **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 First Time Grounds in RY20/21

2.2.1 Market-wide half-hourly settlement (MHHS)

Market-wide half-hourly settlement (MHHS) is an Ofgem-led Programme that mandates electricity suppliers to settle all customers with capable meters (or equivalents) in a half-hourly (HH) capacity. DCC has fully engaged with Ofgem and the wider industry to help shape and refine the program's Target Operating Model (TOM). DCC is expected to play a central role in the MHHS solution as our network will need to be able to accommodate the volume and regular retrieval of the data. More specifically, DCC will be required to introduce significant changes to its systems that allow for the retrieval of 48 HH interval reads each day from both the import and export meter registers. Current assumptions about the TOM are that both the Meter Data Retrieval Service (MDR) and the electricity supplier will need to independently access this data for settlements and billing purposes respectively. The MDR service will be a new DCC user that is appointed by the electricity supplier and will be required to comply with the Smart Energy Code (SEC) for the purpose of collecting data for the settlements process. For DCC to implement these changes, a SEC modification proposal will need to be raised and approved by Ofgem. In addition to established SEC governance, the modification will feed into an industry governance arrangement that is currently being introduced by Ofgem. DCC implementation costs and additional ongoing costs will need to be factored into the DCC price control arrangements.

Industry efforts over the course of RY19/20-RY20/21 have mainly focused on the design of the solutions, planning assumptions and the assessment of the overall implementation costs. More specifically, in RY20/21, we attended a series of cross-industry MHHS Design Working Groups (DWG) as well as responded to two further consultations regarding the changes that will be required to DCC's systems. To date, DCC resource levels assigned to the Programme were limited to a relatively small proportion of regulatory and architectural support. Activities over the course of RY21/22 are expected to ramp up as the Programme moves into the implementation phase of deploying the technical changes that are required to DCC's network. As we now move into implementation, there is a need for changes to be made to the Smart Energy Code (SEC) and the Data Communications Company (DCC) systems to implement the MHHS TOM. The required level of resource includes a mixture of skillsets, including technical and project management support for the design and delivery of the service as well as continued regulatory and commercial input. The full detail on the level of resources that are driving variances under this Programme are set out in the associated BMA model.

Basis for application

The changes introduced by the MHHS Programme are material in nature. More specifically, the criteria and basis for application for the MHHS Programme are:

- **Volume, Risk and Timelines:** the overall extent of DCC's roles and responsibilities in the implementation of MHHS, as set out in Ofgem's Decision and Full Business Case¹⁶, represent a material variance to the scope of our work, as originally set out in the LABP. DCC will also take on an increased level of risk throughout the delivery of the Programme as it takes on the cross-industry lead on the development work to implement the required SEC modifications. In partnership with SECAS, DCC is tasked with the responsibility of managing the SEC modifications through to completion, and to ensure the modification process keeps to the Programme's timelines.

Added Value to Industry and Energy Consumers

Access to half-hourly data is expected to increase competition in the energy market by enabling electricity suppliers to build and bring new offerings to consumers, differentiating themselves and providing the consumer with increased choice. The supply of differentiated products through Time of Use (ToU) tariffs is likely to incentivise customers to move their demand from peak hours to off-peak hours of the day i.e., customer load shifting. This shift in demand will support intermittent generation-balancing and reduce network infrastructure investment. Cost benefits are expected in the range of £1,559m-£4,509m (NPV) from 2026 -2045.

2.2.2 DNO Transformation Programme

As part of the SMIP, DCC has initiated a programme of work that helps expand the services that Distributed Network Operators (DNO) receive. The 2019 BEIS Smart Meter Rollout Cost Benefit Analysis (CBA) included expectation for Distribution Network Operators (DNO) to realise a net-present cost benefit of £374 million by leveraging the capabilities of the DCC smart metering network. Current performance however does not meet the DNOs' requirements, and as a result the CBA benefits are not being fully realised. Following subsequent discussions with BEIS, DCC and the DNOs, a DCC Transformation Programme has been prioritised to deliver performance improvements and maximise the delivery of DNO benefits.

Supported by BEIS, the programme draws upon the Second Enduring General Objective of our License which is to carry out our Mandatory Business in a way that facilitates the innovation in the design and operation of Energy Networks. As to the timing of the Programme, in the initial years of the SMIP, full priority was being given to fulfilment of Condition 13 of the Licence ("the Transition Objective"), the purpose of which was to ensure that DCC undertakes the appropriate transitional SMIP activities in a timely fashion. It is for that reason that the respective services and associated service levels – and therefore internal costs - were not included in the original FSP contracts nor the LABP.

The 2019 BEIS Smart Meter Rollout Cost Benefit Analysis (CBA) included expectation for Distribution Network Operators (DNO) to realise a net-present cost benefit of £374 million by leveraging the capabilities of the DCC smart metering network.

The key pillars of the programme are:

- **Data Reporting:** DCC has developed accurate, automated DNO customer performance metrics reported via a monthly dashboard to help DNOs develop data insight to enable operational performance improvement and optimisation.

¹⁶ The Decision and Full Business Case can be found on the [Ofgem website](#)

- **Service Improvement:** we have established a joint, prioritised and change controlled view of the current DNO issues backlog and are delivering a DCC improvement plan to resolve the issues backlog. We now have a more effective use of DCC incident and problem management processes to manage operational issues and are in the process of constructing a “Memorandum of Understanding” agreements with Meter Manufacturers to help deliver best practices
- **Strategic Engagement:** we have taken the opportunity to reset and rebuild the DCC-DNO engagement model facilitating coordination and alignment within DCC to optimise DNO outcomes.
- **Service Optimisation and Innovation:** DCC and the DNOs will explore ways to collaborate to maximise value from the DCC network. We will investigate ways to improve the effectiveness of industry device testing for DNOs and explore development of a joint development and test sandpit approach. Where possible, we will align our work with the RIIO-2 Strategic Innovation Fund¹⁷ activity that DNOs are eligible for.

In parallel, a SEC modification proposal (SECMP096) was raised to bring DCC performance closer to SEC Obligation on Power Outage Alerts (POA) and Power Restoration Alert (PRA) quality and time. To note, the progression and implementation of this SEC modification is outside the scope of the DNO Transformation programme.

The costs associated with the Programme for RY20/21 include resource costs only. At the time of writing however, the respective resources that are assigned to the Programme currently sit under the different cost centers. As is the case with the larger mandated programmes, we may decide to separate out the DNO Programme costs in future submissions, as and when resource levels materialise. The detail on the level of resources that are driving variances under this Programme are set out in the associated BMA model.

Basis for application

The work under the DNO Programme constitutes a material change to the scope of our core business, based on the following criteria:

- **Volume and Timelines:** DCC is tasked with the enablement and realisation of maximum DNO benefits from mid-2021 to mid-2023. The complexity and challenges to this programme stem from the technical, operational, and commercial changes that will be required to realise the advanced status of the Service Improvements and Dashboard Reporting

Added Value to Industry and/or Energy Consumers

Leveraging the programme to resolve the current (and future) service issues will enable each DNO to benefit and in turn improve their consumers’ experience. The programme allows for a clear focus on each DNO’s individual issues and with DCC providing a holistic approach can leverage efficiencies to help expedite the time to resolve benefiting all DNOs who engage with the programme.

2.2.3 New Scope requirements – Comms Hub Programme (Mandated GBCS updates)

The Great Britain Companion Specification (GBCS) sets out data security and other operational standards for CHs. DCC is mandated by BEIS to develop, test and deploy new firmware to all operational CHs in line with each iterative update of the GBCS. The implementation of the new firmware is carried out by the DCC service

¹⁷ [RIIO-2 Strategic Innovation Fund: Possible Innovation Challenges Round 1 | Ofgem](#)

providers in line with the BEIS mandate; CGI for the DSP system, Telefónica for the CHs in the Central and South region and Arqiva for the CHs in the North region.

BEIS continuously reviews and updates the GBCS and DCC is mandated to provide firmware updates to all CHs when required. DCC is mandated by BEIS to develop, test and deploy new firmware to all operational CHs in line with each iterative update of the GBCS. DCC originally set out plans to achieve GBCS 2.1 compliance in the North by April 2019 for Single-band CHs and South and Central by March 2020 for Single-band CHs. However, this has not been achieved due to the lateness in the delivery of the R2.0 Programme which is a prerequisite for GBCS 2.1 and 3.2 implementation. DCC successfully deployed GBCS 2.1 in June 2021; GBCS 3.2 is due to be available in November 2021.

The costs associated with the Programme for RY20/21 include resource costs only. The detail on the level of resources that are driving variances under this Programme are set out in the associated BMA model.

Basis for application

The work under this activity constitutes a change to the scope of our core business, based on the following criteria:

- **Volume and Complexity:** the volume and complexity of this activity stems from the obligation on DCC to ensure that all Comms Hubs are compliant with the latest iterative GBCS version. Due to the level of uncertainty at time, the LABP excluded any internal and/or external costs associated to the introduction of any future changes to technical standards, including SMETS, GBCS as well as the Communications Hub Technical Specifications.

Added Value to Industry and/or Energy Consumers

Under Section H.14 of the Smart Energy Code (SEC), DCC are obliged to provide Testing services to customers and outlined within this obligation the DCC are required to provide new Comms Hubs firmware versions to allow customers to test their specific business scenarios and interoperability of devices. In the event DCC is unable to provide the Testing services listed above, DCC would fail its obligations outlined in the SEC; preventing DCC's customers from completing UIT activities resulting in the inability to accept new Comms Hub firmware releases into the live environment.

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 with our Licence, the relevant activities that form the basis of this application meet the Materiality Threshold¹⁸ 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.

¹⁸As required by Licence Condition 36, Appendix 2, Part A, A3

DCC confirms that this notice is being served on 31 July 2021, 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:

- **RY20/21** - Adjustment Date of 1 April 2022
- **RY21/22** - Adjustment Date of 1 April 2023; and
- **RY22/23** - Adjustment Date of 1 April 2024

The table below provides a summary of the calculations for Relevant Adjustment¹⁹ based on the relevant activities included in this document. Detailed calculations are contained in the accompanying documents ‘20221 – BMA supporting data Resource’ and ‘2021 – BMA Supporting data Non-Resource’.

£m	2021	2022	2023
Additional resource cost	REDACTED	REDACTED	REDACTED
Additional Non-Resource cost	REDACTED	REDACTED	REDACTED
Total	REDACTED	REDACTED	REDACTED
BMA value resource ²⁰	REDACTED	REDACTED	REDACTED
BMA value non-resource ²¹	REDACTED	REDACTED	REDACTED
Total	3.422	4.711	7.180

A breakdown of the BMA values by project and programme is set out in the table below.

	BMA 20/21 (margin at risk in RY22/23) (£m)	BMA 21/22 (margin at risk in RY23/24) (£m)	BMA 22/23 (margin at risk in RY23/24) (£m)	Total (£m)
Core	REDACTED	REDACTED	REDACTED	REDACTED
SMETS1	REDACTED	REDACTED	REDACTED	REDACTED
ECoS	REDACTED	REDACTED	REDACTED	REDACTED
Total	3.422	4.711	7.180	15.333

¹⁹ As required by Licence Condition 36, Appendix 2, Part A, A5(a)

²⁰ This is calculated by applying a mark-up of 15% on the additional costs plus overhead
