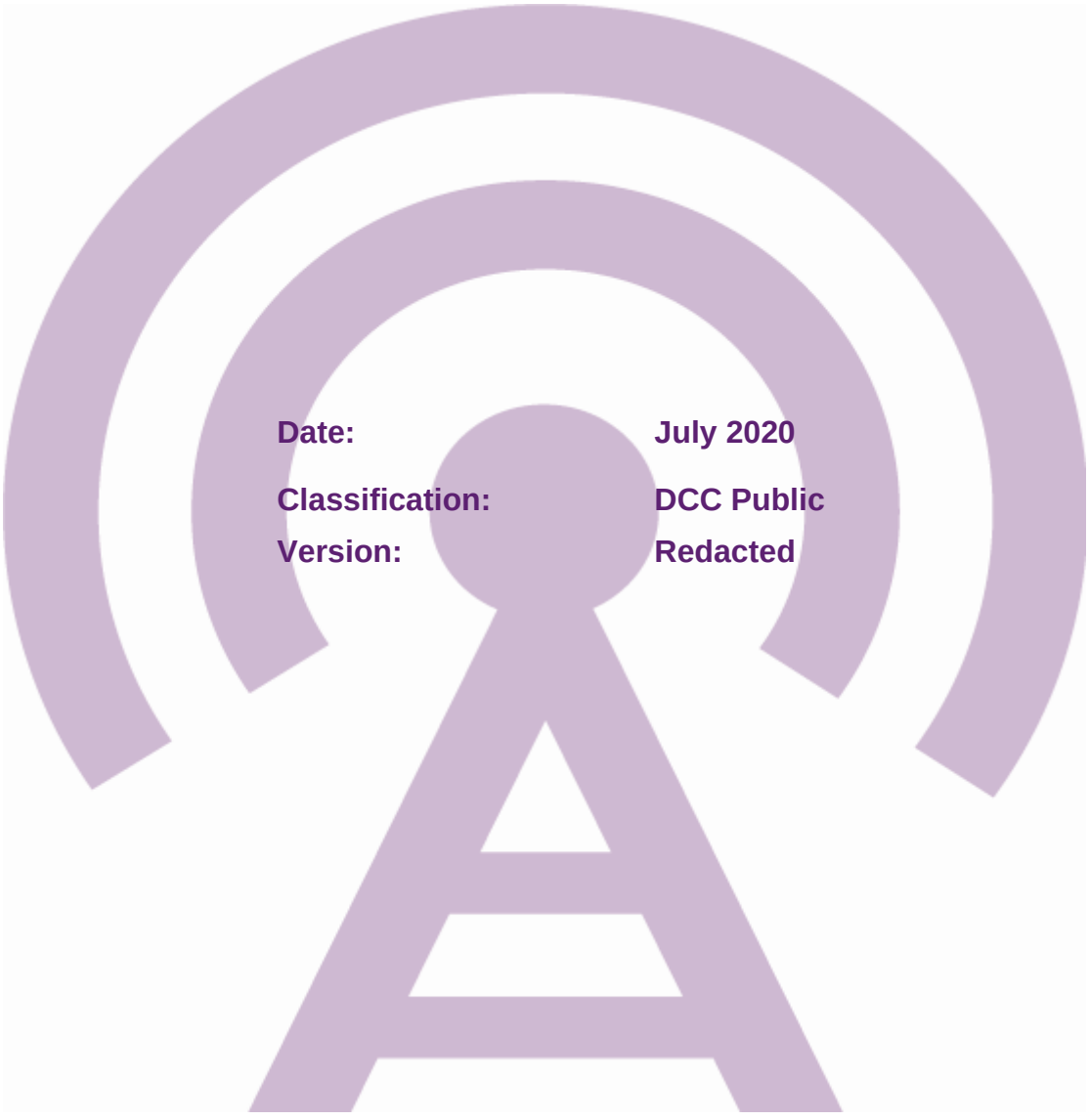
Data Communications Company

Introduction and Executive Summary

DCC Price Control Submission RY19/20



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Data Communications Company

Contents

1. Introduction

Over the last year, DCC has continued to make remarkable progress in in delivering our core programmes – SMETS1, SMETS2 and switching - that are fundamental to achieving the Government's goal of net zero carbon by 2050. DCC has built the secure national infrastructure that supports the roll-out of gas and electricity smart meters to every household and small business in Great Britain. Smart meters provide accurate, digital data that allows consumers to understand and control their use of energy more effectively and switch supplier more easily. They play a critical role in unlocking future low carbon initiatives, such as nationwide electric vehicle charging and innovations in home energy management.

In the early phases, the roll-out of the Smart Metering Implementation Programme (SMIP) has proven more challenging and complex than anyone anticipated. Since then however, DCC has gained a significant level of experience and is currently turning the mass roll-out of smart meters into a reality. At the start of Reporting Year (RY) 19/20, our network counted 630,000 installed SMETS2 meters. That figure quickly ramped up to 1.2m installations at the end of June 2019, finishing at a total of over 4 million installations, at an installation rate of 6.4 installs per minute by the end of March 2020. At the time of writing the number is over 4.4 million. The successful delivery of the SMETS2 infrastructure is a huge achievement for DCC and supports the decision to deliver this complex nationwide infrastructure through a model of contracted service provision with DCC acting as an intelligent client organisation.

RY19/20 also focussed heavily on the migration of the first SMETS1 capability in the summer of 2019. Since the start of the enrolment of the first Initial Operating Capability (IOC), we have learned how to rise to the challenges presented by the migration process. We have built on this experience and have made continuous improvements to migrations and our customers' experience during the process. February 2020 saw a record number of 19,000 migrations of SMETS1 meters onto the DCC network. In RY 2019/20 a total of 127,100 SMETS1 meters were migrated, a total of over 400k by the end of RY19/20. At the time of writing, 663,519 SMETS1 meters have been enrolled. A detailed schematic showing the key smart meter volume statistics is set out in figure 1 below.

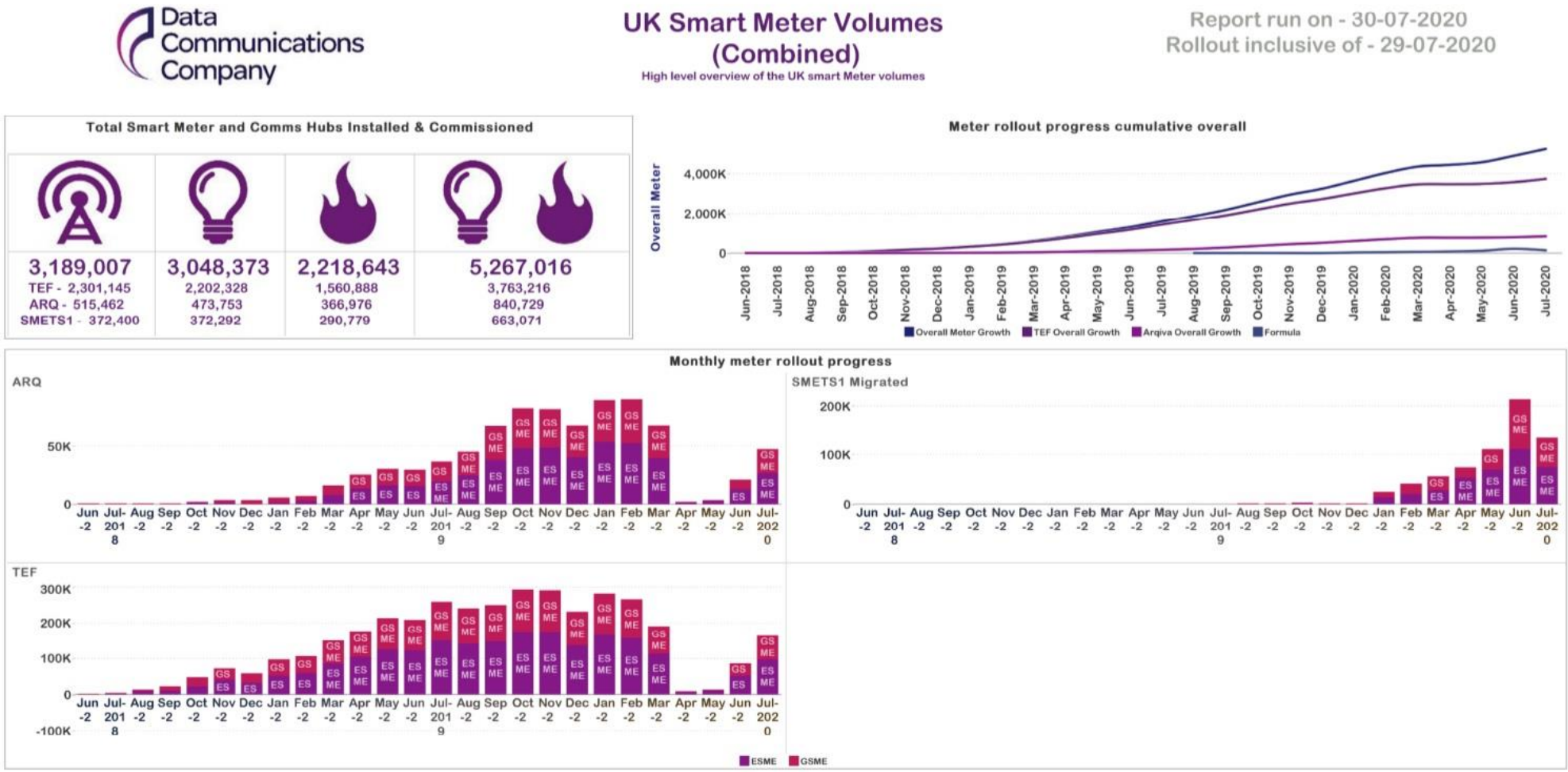

Figure 1 – Smart Meter volumes

Since April 2019, DCC has entered the Design, Build and Test (DBT) phase of the Ofgem-led Faster, More Reliable Switching Programme. During this phase, and prior to Ofgem extending the programme due to Covid-19, DCC has been gearing up for the Programme's scheduled go-live in the summer of 2021. Key to this has been the successful onboarding, in 2019, of all the fundamental service providers that will help deliver this new service.

Over time, the benefits of a more connected GB energy network will become an increasingly important part of the Government's plan to tackle climate change. Under our licence, DCC is required to support new services requested for the whole industry, specific customer innovation both for existing and new customers, and the re-use of our secure network. This will allow us to reduce costs for our existing customers and ensure that our network is used for maximum public good. Critical to facilitating innovation onto our network will be our new test lab facility in Manchester, which includes 19 modular test labs with 2,400 smart meter testing spaces configurable to meet our customers' bespoke requirements.

Projects that have already been initiated 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. We have also started building our capacity to deliver an improved Elective Services offering and cheaper quicker in-life change. November 2019 witnessed the first enduring SEC Release, to contain DCC System-impacting changes arising from SEC Modification Proposals.

Another key programme we have initiated over the course of last year is our Network Evolution programme. This is aimed at evolving our infrastructure to support long term enhancement, simplified network design with greater resilience, enable faster change and automated testing at a lower cost and to avoid service disruption from the sunsetting of old 2G technology. This will help us meet the Enduring General Objectives in our licence.

As part of our efforts to further explore innovative and different ways to re-use the smart metering data so that we can reduce charges for our customers, DCC has also run various proofs-of-concept, including on load control and EV smart charging. In addition, we have also advocated the re-use of our communications technology in other industries where it could be in customers' and the public interest. Specifically, DCC worked with the Connected Places Catapult to demonstrate the economic and public interest value of transactional and meta-data within the smart metering system and to support the Energy Data Taskforce and Smart Data Public Interests Advisory Group.

1.1 RY19/20 DCC Price Control – Context and Background

DCC is very mindful that the costs it incurs to implement and maintain the smart metering system are borne by our customers. We carry the responsibility to deliver our Programmes in the most cost effective and economic way. As a monopoly, we are rigorously regulated and governed by our licence and held accountable to the energy regulator, Ofgem. Specifically, our licence stipulates that we must ensure that our customers obtain value for money from their contribution to the delivery of the Smart Metering Implementation Programme (SMIP) and other activities covered by the licence, such as Faster Switching. We do this through an extremely detailed annual price control submission to Ofgem, who scrutinise our analysis and justification and determine whether we have been economic and efficient. Where Ofgem considers that costs have not been economically and efficiently incurred by DCC, these can be excluded from any future calculation of our allowed revenues. This approach ensures we have licence obligations and financial incentives to be economic and efficient.

Over the past few years, DCC has significantly invested in this area by making value for money a concept that stands central to our activities. As an example, DCC typically insists on incentivised milestones to drive optimal performance from our service providers and achieve planned results. Driving performance from our service providers is also supported by monthly dashboards with 360-degree feedback and formal 'get-to-green' plans where performance is identified as being unsatisfactory or needing improvement. We use both formal contractual tools and reputational

incentives to drive this performance and publish an annual service report[1] giving an assessment of our suppliers. This creates pressure on our suppliers to improve performance where needed.

Reflecting on customer feedback, DCC has taken further steps to put its customers at the front and centre of everything it does through implementing a detailed customer engagement strategy. To ensure we deliver on this strategy, we are putting in place more robust processes to ensure customer views are reflected in internal decision-making. Central to that is our new customer portal, which is designed to provide a single point of contact and information for DCC customers.

We are also fully cognisant of our duty to identify and realise efficiencies across all parts of the business on a continuing basis whilst at the same time maintaining steady progress against our programmes and quality of service. With value for money being central to all our activities, DCC has already been realising significant cost savings (c£250m over the last two years) through long-term efficiencies across several areas. This ranges from consolidating test facilities to the refinancing of external set-up costs, as well as through continuously introducing improvements to our internal systems and processes. As we have grown and matured over the years, improvements have been made to support and realise efficiencies and savings across the business.

Finally, and especially as we continue to operate at scale, DCC is committed to use people and resources effectively. This means efficiently redeploying resources across DCC as work on projects and programmes comes to an end, driving out inefficiencies in contract and consultancy costs, driving savings through high quality competitive procurement, as well as ensuring that the salaries of our staff are compared to reference benchmarks. We will continue to make improvements in these areas over the coming years.

This Executive Summary sets out the overall narrative for DCC's spend during RY19/20. The remainder of the submission expands on this narrative and is supported by supplementary documents and evidence, including a complete set of Regulatory Instructions and Guidance (RIGs) tables, financial schedules, and a Financial Reporting Commentary. DCC is also submitting data in relation to its performance under the different Incentive Schemes i.e. for the Operational Performance Regime (OPR), Switching as well as Release 2.0.

In addition to the Price Control submission, DCC is submitting:

- A Baseline Margin Application Notice which proposes an adjustment to the Baseline Margin (BM) to reflect that DCC's costs this year were higher than forecast in the original LABP as a result of unforeseen activities or additional complexity or scale that was not previously envisaged.
- An External Contract Gain Share Notice which proposes an adjustment to DCC's allowed revenue to recognise DCC's contribution in achieving cost savings for customers on two major contracts with suppliers (the Data Service Provider contract and the Communication Service Provider contract).

2. Our Key Achievements in RY19/20

RY19/20 has been another challenging, but successful year for DCC. We have made significant progress in delivering our core SMETS2 activities, initiating new programmes and activities on behalf of government, Ofgem and the SEC Panel, and building our organisational capability, including:

- Achieving more than 4m SMETS2 meters migrated onto the DCC network.
- Making significant progress by enrolling and adopting more than 127,100 SMETS1 meters onto our network.

[1] See: https://www.smartdcc.co.uk/media/3334/annual-service-report-2018-19.pdf

- Delivering activities early and under budget in support of Ofgem's Switching programme.
- Delivering a hugely challenge November 2019 SEC Release.
- Enhancing our capability in key areas of portfolio and product management, commercial and contract management and security provision.
- Horizon-scanning activities to ensure our services keep pace with technological change, the sunsetting of old technology and preserving existing functionality as contracts come to an end through our Network Evolution programme.
- Refitting our Brabazon House and Ruddington offices to deliver a more fit-for-purpose and secure working environment, including building the capability or our Test Labs to deliver functionality and cost saving to our customers.

A timeline of these key achievements is in the figure below.

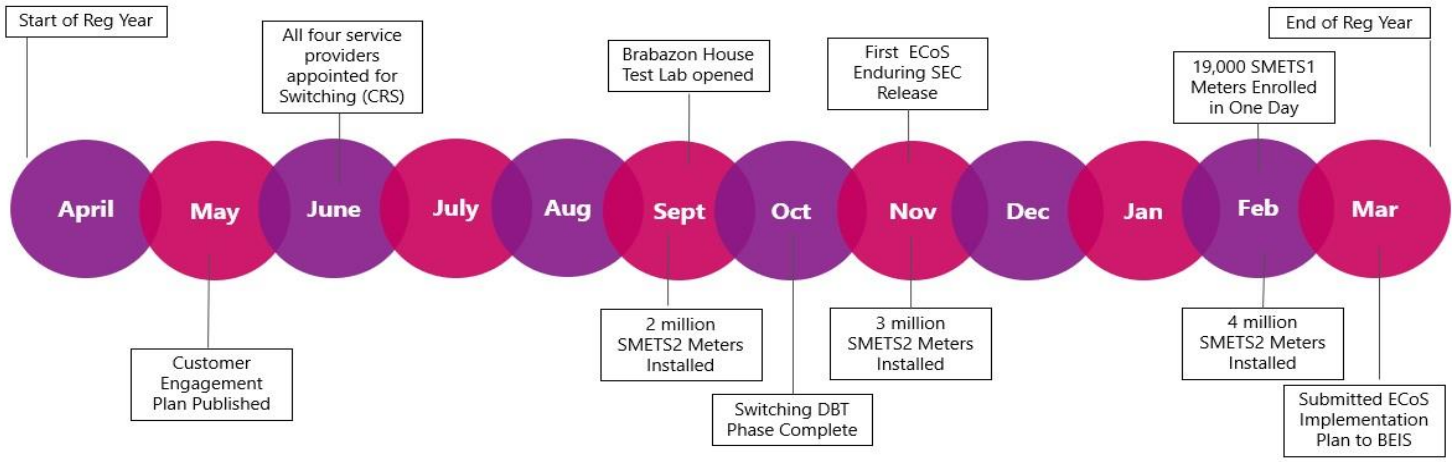

Figure 2 – Development of DCC's operational processes and capability

2.1 Building a Track Record of Delivering Programmes and Services

SMETS2 – Deployment of 2nd Generation Smart meters

Since go-live three years ago, the roll-out of SMETS2 meters is progressing steadily with 4m meters installed on our network by the end of RY19/20. At the time of writing, this number is now over 4.6m. Since go-live, DCC has built on this capability through incremental systems upgrades with Release 2.0 (R2.0) being the latest change.

Release 2.0 (R2.0) encompasses a system update to the network which paves the way for the roll-out of Dual Band Communications Hubs (DBCHs) – a solution which helps overcome problems of getting a strong smart meter signal in some buildings, such as blocks of flats or where walls are very thick. The main achievements since the approval of the Release 2.0 delivery plan at the end of March 2019 include:

- The release of single band transition firmware for WNC and Toshiba Comms Hubs in August 2019 and October 2019 respectively. This firmware enables CSP South and Central customers to transition to Single Band Release 2.0 Firmware via a mass over-the-air (OTA)

upgrade mechanism prior to the end of the validity period of the old firmware. Mass OTA upgrades were completed for the majority of CSP South and Central customers.

- DCC made progress towards mass manufacture of the new Dual Band Communications Hubs (DBCH), completing development and Systems Integration Testing of the new product. This new device will increase the footprint of the Home Area Network (HAN) and enables better connections in homes where there is a weak signal between gas Smart Meters and the Communications Hub. This is a problem in an estimated 25% of homes, hence deployment of the new product is considered critical to achieve the government's overall coverage targets. DCC has tested these with meters that can communicate on the new radio frequency before mass manufacture commences. Progress against this final phase of testing was slower than planned due to delays in the availability of compatible meters, which we have worked tirelessly to resolve.

SMETS1 - Enrolment and Adoption Programme

At the early stage of the Smart Metering Implementation Programme (SMIP), energy suppliers rolled out first generation (SMETS1) meters to accelerate the benefits of smart metering to customers. These were not rolled out in a coordinated manner, and only now do we understand the impact. The main drawback of such meters was that on a change of supplier, SMETS1 meters risk losing their smart functionality. To date, approximately 15 million SMETS1 smart energy meters are installed in properties around Great Britain, of which one million have already lost their smart functionality. DCC's delivery plan (LC13) schedules the migration of these meters via three main cohorts known as: Initial Operating Capability (IOC), Middle Operating Capability (MOC) and Final Operating Capability (FOC). Over the course of the past 18 months, DCC has successfully entered into commercial arrangements for the provision of all SMETS1 services, across all cohorts and including migration. Building on previous experience, DCC has managed to achieve significant cost reductions, saving industry to date an aggregate cost of £450m.

Due to a range of technical issues and complexities, the LC13 plan was re-baselined at the end of 2018, moving the go-live date of the programme from May to July 2019. DCC started with the migration of dormant meters in August 2019, followed by the migration of active devices more recently in February 2020. At the time of writing, more than 663,519 SMETS1 devices have been migrated onto our network. The enrolment of SMETS1 meters will continue to ramp up as more and more meter variations are found to be eligible and capable of migration. No adverse impact on SMETS2 services have been identified as a result of introducing SMETS1 services.

The delivery of MOC and FOC is well underway and both capabilities have successfully entered System Integration Testing (SIT). Delivery plan milestones were met on 15 March 2020 for MOC (MDS), and significant progress has been made on meeting MOC (Secure) and FOC milestones. DCC continues to prioritise the migration of dormant devices and is forecasting completion in line with the current Joint Industry Plan. However, it is still a complex picture with issues still cropping up with certain meter types, requiring us to deal with unforeseen problems at short notice.

Switching Programme (Centralised Registration Service)

DCC's smart metering platform has unlocked wider public benefits in the energy sector. One of these benefits is embodied by Ofgem's Switching Programme, for which we are a key delivery partner. Ofgem has established the Switching Programme to improve consumers' experience of switching between energy suppliers, leading to greater engagement in the retail energy market. To enable this, the Switching Programme is tasked with the design and implementation of a faster and more reliable process for switching energy suppliers, ultimately delivering a more competitive energy market for consumers.

Over the past 12 months, DCC has moved on swiftly from the Enactment phase (Procurement and Contracting activities), into the Design, Build and Test (DBT) phase of the Ofgem-led programme. It is during this phase that DCC has been preparing for the go-live of the service. Because of Covid-19, Ofgem has decided to delay the start of UEPT by six months, which was originally due in September 2020. As a result of the decision, DCC and its service providers are supporting Ofgem in the re-

planning of the Programme with a view to re-baselining the Programme Plan at the end of September 2020, by which time the impact on DCC resources and those of its service providers will be known.

By the end of June 2019, DCC had appointed all four service providers[2], which have since laid the building blocks for the integration of all core systems and services as well as the completion of the Physical Interface Design Specification, allowing the different parties that are integrated into the service to develop detailed designs of interfaces into their own systems. In October 2019, the Programme has achieved the 'Programme Parties Mobilised' milestone, marking the successful conclusion to the Design, Build & Test mobilisation.

2.2 Looking Ahead – Our Future Plans and Priorities

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 service for our customers.

However, we will also continue to support key initiatives that underpin the transformation of the energy market, including fulfilling the new roles government has asked us to perform, such as the key delivery partner for Ofgem's 'Faster, More Reliable Switching' Programme as well as the introduction of Half-Hourly Settlement (HHS) and Enduring Change of Supply (ECoS). A summary of our role in these new programmes is below.

- Currently consumers are billed using estimates of their consumption, based on profiles of average consumers rather than on actual consumption or export in each half-hour period. HHS will provide suppliers with the true cost of their customers' usage in half-hourly periods and incentivise them to take steps to help their customers move their consumption to times of the day when electricity is cheaper to generate. This will build on the platform provided by smart metering to enable a smarter, more flexible energy system that lowers bills, reduces carbon emissions and enhances security of supply. Given our role in the delivery of the data and communications infrastructure to support the national smart meter roll-out, DCC will have a central role to play in providing the data to underpin the new HHS process. We look forward to further engagement with Ofgem as the proposals for HHS develop, and in particular to discuss the practical implications for our ecosystem and the solutions available to address the issues that arise.
- The ECoS Programme will define and implement the enduring arrangements for the changing of security credentials on SMETS devices. Enabling energy customers to change supplier securely and easily is one of the fundamental purposes of the smart metering rollout and is underpinned by DCC's change of supplier process. Following a direction from BEIS, DCC produced and consulted on an implementation plan, before submitting it to BEIS on 16 March 2020. Progress against the plan will be closely monitored and reviewed regularly at the appropriate smart metering governance meeting. A key review point will arise following the procurement of the CoS Party. Timelines for the design, build and test phases will be confirmed with bidders and with the appointed service provider for these phases.

Work has also started to evolve and enhance DCC's core infrastructure. Our Network Evolution Programme focuses on the future of DCC operations in the smart metering environment. In keeping with the Enduring General Objectives in our licence, it looks at how new processes, systems and technologies can improve the live service, reduce the operating costs of the DCC system, and, above all, secure the continuity of a critical part of the UK's national infrastructure given the sunsetting of old technology. It is comprised of the following components[3]:

[2] Landmark (Central Switching Service), Netcompany (System Integration), Capgemini (Service Management Tools) and Expleo (Core Systems Assurer).
[3] We also investigated a DSP Sandpit proof of concept but closed it at the end of stage 1 at the end of March 2020 before the sandpit was built as further investment costs could not be justified.

- **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 DSP to de-risk the overall re-tendering activity.
- **Network Evolution Communication Hubs & Networks**: Designing and procuring future-proof Communications Hubs & 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. Over time we will also consider options for providing roaming and switchable capability to increase resilience, reduce industry costs, and minimise inconvenience to the end consumer.
- **Network Evolution SMKI**: Procure a replacement or extension to the Smart Metering Key Infrastructure (SMKI) security Trusted Service Provider (TSP) service in a cost-effective way.
- **Network Evolution Test Automation**: Designing and implementing automated testing of the SEC releases to achieve faster and lower-cost testing.

The Programme aims to ensure that customers are obtaining value for money at all times and that opportunities for competition are integral such that all service providers are continually subjected to competitive pressures. This will include:

- Defining a maturity model for transitioning to an agile delivery approach.
- Developing the capability of the organisation and its people.
- Service transition planning.
- DCC transition planning.

Finally, during RY19/20, no Minimal or Value-Added Services, nor Elective Communication Services were provided. As we continue to identify opportunities in these areas and engage with prospective new customers, we seek to explore innovative reuses of the network that will ultimately lower costs for existing customers. We intend to engage with Ofgem and BEIS on these opportunities as when these arise and develop. On 1 October 2018, Section H7 of the Smart Energy Code was activated by the Secretary of State, which placed obligations on DCC to assess and make available Elective Communication Services (ECS) for DCC Users. The Government sees the activation of Section H7 of the SEC is an important milestone for the smart metering Program. It enables energy suppliers to make differentiated service offerings available to their customers, and to request any additional services that they wish to receive in respect of enrolled SMETS1 meters. To date, no concrete requests for ECS were submitted. DCC will however continue to offer ECS to SEC Parties in accordance with our regulatory obligations. As ECSs are provided, we will review our processes and delivery times and assess, in consultation with our customers, whether there are benefits to be made to the regulatory processes we are required to follow.

3. Responding to our Customers' Needs

We are committed to continually making improvements to the services we provide our customers. We have responded to our customers' needs on in-life change and improvement and have delivered SEC releases ahead of time and under budget. We will build on this by improving ECS to make it another mechanism for delivering in life change quickly and cost-effectively.

Over the past 18 months we have made considerable effort to listen and respond to how all our customers would like to be engaged, so that they can tell us in a way that works for them how to improve the services we provide. At the end of 2018 we launched a detailed consultation exercise to understand what our customers felt about our engagement, what activities worked well for them, and what we could improve on. This consultation provided us with detailed insight and concrete examples of where our approach needed to improve. After reviewing our customers' responses to this consultation, we

published our response in May 2019 setting out key commitments to our customers. To deliver this, we have changed significantly as an organisation, building a team with the key capabilities to lead the strategy and achieve a significant cultural shift in how we deliver high quality customer engagement. But we will not stop there and will continuously seek to improve.

3.1 Customer Engagement

DCC fully recognises the importance of effective customer engagement. We share our customers' views as well as those from Ofgem, that customer engagement is a critical aspect of making decisions that are economic and efficient and benefit all DCC users. It is in direct response to feedback from customers and Ofgem that we have already initiated a number of important steps in this area.

Our new approach to customer engagement was developed with customers between May and September 2019, and is based on the following key principles:

- Customers will help shape DCC's annual business and development plan which sets out our programme of activity for the coming five years.
- We have increased transparency around in-flight activities – providing forecast costs by programme or activity and reporting quarterly on progress against budget and programme benefits.
- Customer views will be sought when shaping new activities – we will share business cases for new activities for customers to review and comment on.
- We will set out clearly when and where we will engage on the development of new activities, so customers know when and how to engage.
- We will provide feedback on how customer views have been reflected and have been used to shape recommendations to the DCC board – 'you said, we did.'
- We will run surveys to seek customer views on activities or change that incur little or no additional cost.
- Finally, a critical part of our new approach involves the recent go-live in Q1 2020 of our Customer Engagement Portal, which has been developed to improve communication with DCC's customers. It enables our customers to access information, respond to consultations, participate in surveys and book places at events. All SEC parties will be onboarded in the first quarter of the release. The integration with Salesforce (CRM) will allow us to track customer activity amongst all SEC parties and easily survey them on our performance.

3.1.1 Acting on What Our Customers Said About Last Year's Price Control

Our approach to customer engagement continues to mature and in this year's submission we are tackling our customers' pain points from last year's Price Control. Responses to Ofgem's consultation on RY18/19 made a number of important points that we are addressing this year:

- **Concerns about the growth in costs of DCC's activities** – we take this seriously and provide a significant amount of detail on the costs we incur and how we achieve value for money.
- **Efficiencies** – this year, for the first time, we are providing information on our Smart Savings initiatives, in addition to the evidence we provide on the large savings our contract negotiations have created.
- **Transparency of information** – much of the information we provide to Ofgem is confidential, so we understand that there might be a perception of a lack of transparency if we need to withhold or redact details. We are publishing more information this year, including our section on OPR performance. We are also separating out information on our programmes into standalone sections to aid transparency. Acting on the survey we conducted in June 2020, we are also providing more information on our contractual processes.

- **Benchmarking** – Ofgem has expressed concern about our approach to benchmarking, and this year we have done more to provide a consistent approach across our permanent and contractor staff and will review this again in time for next year's submission.
- **Performance** – we continue to prioritise delivering our core services as effectively as we can, and have taken significant steps to put pressure on our suppliers where they are not performing as both we and our customers want, and have developed supplier dashboards to provide transparency on their performance.
- **Forecasting** – we are subject to an extremely high threshold for including forecast costs in our charges. Because of this threshold a significant amount of our forecast expenditure in future years is disallowed in each price control submission. When we re-submit the forecasts, or provide information on what we have incurred, the costs show up as variances, even though we fully intended to spend the money the previous year. We will investigate how to remedy this situation.

In June 2020 we published a survey on how we could better engage our customers on the price control. The feedback on this survey has been used to inform this year's submission and we will continue to ask our customers how we can get better.

3.2 Strengthening our Supply Chain

DCC delivers its services by procuring and contracting with external Service Providers. Approximately three-quarters of our total costs are associated with the delivery of these services. Given the high proportion of these costs, we are committed to ensuring that the delivery of these services, both during phases of implementation and live operation, is done in a timely manner and to the highest possible standard.

Over the years, DCC has built up an extensive level of knowledge and expertise around the management of external service providers. DCC is committed to continuing to build on this experience and to use this to further enhance its commercial and technical leverage with the purpose of providing continual value-for-money for its customers.

With the recent introduction of new services such as SMETS1 and the Faster Switching's Centralised Registration Service, DCC has worked closely with all parties to ensure that DCC's ecosystem remains interoperable, reliant and secure. As a result of adopting these new services over the course of the last regulatory year, our supply chain has grown significantly, from three to eight key Service Providers. On a broader scale, in the past 18 months our supply chain network has grown to 38 external service providers offering a range of services including technology solutions, consultancy, recruitment and auditing.

DCC places the utmost importance on managing contractual risks carefully to ensure services are delivered to agreed standards, on time and on budget, especially when on-boarding new suppliers. Ofgem and our customers have asked for greater clarity around how we do this. In response to this, we are committed to provide greater evidence on how we manage our service providers effectively. In this year's submission we expand on the processes and procedures we adopt in procurement, negotiation and in-life, without compromising confidentiality.

In recent months, we have initiated a review of the existing end-to-end Change Request (CR) and Project Requests (PR) processes with the aim of streamlining them and introducing improvements that will benefit our customers.

Recent examples of how we have already enhanced our activity to maximise the value we get from our service providers include:

Maximising Service Value throughout Negotiations

- Use of high-quality procurement and negotiation methodologies and processes across the business.
- Maximising the mix of in-house and outsourced skills to leverage skills while preserving value for money.

- Holding ‘black hat’ meetings prior to contract signature to test the robustness of the contractual, financial and operational elements of the contracts. This also ensured that residual risks were at an acceptable level.
- Implementation of ‘cost of failure’ clauses, adaptability clauses and use of retention accounts with release of monies tied to delivery of milestones.
- Prior agreement of the scope of work with all costs requiring advanced authorisation during all agile development phases.
- Use of commercial leverage throughout the negotiation phase as well as on an ongoing basis to apply greater scrutiny, bring down costs and drive value.

Maximising Value on an Enduring Basis

- All major contracts are subject to robust governance and oversight. This includes the tracking of commercial and technical deliverables, contract changes, Value for Money reviews as well as the performance of the service in key functional areas
- Assigning contract managers and supplier relationship managers to hold the service provider to account on time, cost and quality.
- Use of the new Supplier Relationship Management dashboards to drive real focus.

3.3 Revisiting Our Shared Service Arrangements with Capita

As part of the Licence Application Business Plan that government approved, our shareholder Capita charges DCC for the shared services it uses. These charges were reviewed by Deloitte in 2016 and were found to be appropriate for the services provided. However, in response to our customers’ and Ofgem’s concerns, we have again engaged Capita to initiate a review of the current approach to ensure it continues to provide value for money.

3.4 Efficiency Gains – Scaling Up Our Systems and Processes

3.4.1 Investing in Operations

With more than 4m devices installed onto our network, the roll-out of SMETS2 meters has continued to gain strong momentum over the course of the last year. Operations play a critical role in the overall implementation of the Smart Metering Programme and have subsequently continued to grow both in scale and capability, enabling our platform to handle the target of 45,000 installations per day.

DCC’s Technical Operations Centre (TOC) is now operational in Brabazon House, Manchester, as well as in Ruddington, Nottingham. Near-real-time dashboards are live in these sites, showing system performance based on rate, speed, volume and payload (RSVP). We know from engagement with our customers that they see the TOC as providing a vital service, while BEIS and Ofgem use its capability to monitor delivery of supplier obligations.

Besides hosting the TOC, Brabazon House has become home to our Testing Lab Hub, which is aimed at taking on the testing services from the different CSPs, significantly reducing costs for proving and testing. The lab welcomed over 50 customers in the first three months of operation.

Operations also have a key role in identifying improvements to our processes and our ways of working with customers. To help with this we are measuring 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.

Further key achievements over the course of the year include:

- A series of successful disaster recovery, business continuity and resilience tests, for both SMETS2 as well as the newly onboarded SMETS1 IOC Service Providers.

- The creation of an effective Design Authority capability, established specifically to provide technical control and robust oversight across all programmes, including SMETS1, SMETS2 and others.

3.4.2 Enterprise Changes

The scale and variety of external requirements driving projects, programmes, and operations for DCC has outstripped the original requirements defined at the start of the SMIP. In order to effectively respond to these changing requirements, DCC has launched the following portfolio of projects in the interest of maintaining the highest possible standard of service for our customers:

- Creation of a Production Proving Function which will support and enhance the delivery of DCC's services and enable us to undertake the required level of end-to-end proving of the Smart Metering Network in the live environment. 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 release of firmware and DSP code changes to DCC Users.
- Delivery of the Order Management System (OMS): the development of this single user portal for ordering Communication Hubs was completed in December 2019 and replaced the existing CSP portals in May 2020 providing improved customer experience. A second phase of work will support bulk returns of Communication Hubs, functionality that has been requested by DCC Users.
- Establishment of a DCC dedicated IT Infrastructure: this will allow DCC to establish and manage its own security policies, removes the threat (albeit small) that DCC systems can be compromised via the Capita network and reduces support costs.
- Establishment of a new DCC facility in Manchester to provide a multi-purpose User Testing Lab, the TOC and office facilities.

4. RY19/20 Costs at a Glance

Over the course of RY19/20, DCC incurred costs of **£507.558m**. Around 69% (**£351.410m**) of these costs relate to External Costs – these are the costs associated with the provision of Fundamental Service Capability. The contracts which provide these are in relation to:

- SMETS2.
- SMETS1.
- Switching.

Circa 20% (**£103.971m**) of the total costs in RY19/20 relate to Internal Costs, these include:

- Payroll costs.
- Recruitment.
- Project/consultancy spend not related to Fundamental Service Capability.

A breakdown of the total costs is set out in Figure 3 and Table 1 below.

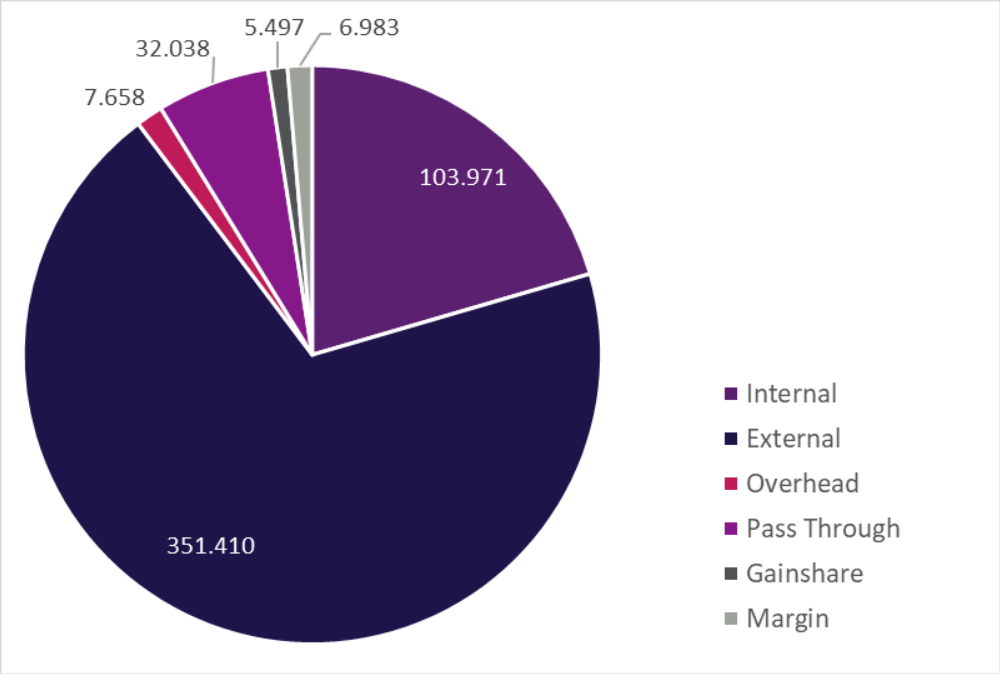

Figure 3 - Breakdown of costs incurred in RY19/20

£m	Programme	RY19/20 (£m)
Internal Costs	SMETS2	75.148
	SMETS1	23.954
	Switching	4.868
	Total Internal Costs	**103.971**
External costs	SMETS2	280.308
	SMETS1	62.357
	Switching	8.745
	Total External Costs	**351.410**
Overhead		7.658
Pass-Through		32.038
External Contract Gain Share		5.497
Baseline Margin		6.983
Total		**507.558**

Table 1 – RY19/20 programme breakdown

4.1 Variance to Previous Year's Forecast – Internal Costs

Last year's Internal Costs forecast for RY19/20 was £68.914m (excluding Switching costs). Incurred costs are approximately 43.8%[4] above last year's forecast. Ofgem requires us to adopt an extremely high certainty threshold for our forecasts. This broadly translates into a requirement that only activities that have a signed contract are eligible to be included in future years' forecasts. This means that every year there is a large mismatch between the activities we intend to undertake in our business plans versus what we forecast for the Price Control, simply because of this rule. Similarly, because each year's submission covers three years only, the final year's forecast is always a new number without a

[4] This excludes Switching costs.

prior baseline. This means it always shows as a variance, regardless of whether we have planned the activities.

The variances in Internal Costs in RY19/20 are largely driven by activities in the areas below. Table 2 below shows these drivers by cost centre, and table 3 underneath presents the drivers for our programmes.

Key internal cost variance drivers by cost centre

Cost centre	Driver of cost variance
Corporate management	▪ Accommodation costs associated with fit outs of Brabazon House (Manchester office) and Discovery House (Ruddington) ▪ Improving customer engagement, namely through the new customer engagement portal ▪ Building our test lab capability to deliver more efficient and coordinated testing facilities
Commercial	▪ An increase in the number of live contracts we now manage ▪ Increase in the complexity of our supply chain, driving additional contract management costs for SMETS1 and Switching
Design and Assurance	▪ Forecast variances in future years to support the architecture design of aspects of the Network Evolution programme ▪ Variances to allow DCC and customers to test systems against the latest technical standards and to test and set limits on RF noise created by electricity meters
Finance and People	▪ Additional roles in Commercial and Finance to improve our processes and reporting ▪ Additional finance business partnering resource to work with programmes to ensure good financial outcomes and value for money. ▪ Restructuring and expanding our finance and people teams to accommodate the growth in the size of the organisation and the additional complexity of programmes. ▪ Both teams now undertake a wider range of functions as part of our strategy to create more independence from Capita
Operations	▪ Restructuring of the division, resulting in the transfer of two teams into Ops, Design and Test Services and Technology Infrastructure. A commensurate reduction is seen in the Design and Assurance team ▪ Improving our systems to coordinate change across the total network, to improve services and improve efficiency ▪ Improving our capability to monitor SMETS2 installations and the migration of SMETS1 meters into the DCC ecosystem ▪ Delivering cost savings over time through an enhanced Comms Hub Order Management System capable of handling the significant increase in the value of assets scheduled to be in operation as DCC operates at scale ▪ Improving our IT provision through enhanced systems using next generation security, allowing us to create greater separation from Capita
Security	▪ Additional resource costs to move DCC to a threat-led security model, including ensuring current and new programmes and the tools to support them are compliant with our security architecture
Service Delivery	▪ Additional resource costs to ensure adequate project and portfolio management capability, business analysis and the application of our change delivery methodology.

	▪ Resources are also required to manage the increased team responsibilities such as Switching Operational Readiness and DBT, EIT, Customer Portal, In-Life change and SEC releases and the Communications Hub Order Management System ▪ Additional non-resource costs to deliver a range of IT requirements, including BIMI change requests

Table 2 – Key internal cost variance drivers by cost centre

Programme	Driver of cost variance
ECoS	▪ No material variances
Half-Hourly Settlement	▪ No material variances
Network Evolution	▪ Resource increases in the Service Delivery to provide project and programme management support - required to plan activity to meet the future technological and customer demands on the DCC network ▪ Costs incurred on designing the Test Automation services which will deliver significant service benefits and reduce costs for our customers
SMETS1	▪ Additional resource costs in Security and Service Delivery to meet the increased governance, delivery and testing requirements of the programme. These variances were largely compensated for by underspend in other areas of resource ▪ Non-resource costs associated with the SMETS1 delivery partner – responds to BEIS's concerns in 2019 that more resource was required for SMETS1 ▪ Migration costs associated with, amongst others, Requesting Party functionality to allow migration of certain devices onto the Trilliant S1SP platform and therefore into the DCC system
Switching	▪ DCC's delivery of Ofgem Switching programme has a zero baseline, so all costs are justified in the price control submission, where they are material. These are resource costs of running our activities, and some non-resource spend on legal services

Table 3 – Key internal cost variance drivers for Programmes in Development

4.2 Variance to Previous Year's Forecast – External Costs

Last year's External Costs forecast for RY19/20 was £312.922m (excluding Switching costs). Incurred costs are approximately 9.5%[5] above last year's forecast. The increase in costs is largely driven by activities in the following areas.

Programme/area	Driver of cost variance
Release 2.0	▪ The majority of CRs that are driving the variances relate to extended cover for testing and fixes

SMETS1	▪ Enduring costs for the two new SMETS1 CSPs (Vodafone and Telefonica) plus running costs for the DCO (Critical)
	▪ The majority of CRs and PRs driving variances relate to:
	  ▪ Extended cover for the different testing phases due to the delay on IOC, MOC and FOC
	  ▪ Design and Build of the Commissioning Party

Other material costs	▪ These are driven by CRs supporting the delivery of the November SEC release and Testing Services

Table 4 – Key external cost variance drivers

4.3 DCC Cost Forecast (RY20/21 and beyond)

The table below summarises the total costs (Internal, External, Pass-Through and Baseline Margin[6]) forecast for the remainder of the Licence term.

£m	RY2020/21	RY2021/22	RY2022/23	RY2023/24	RY2024/25	RY2025/26
PC20	532.091	443.308	424.545	462.369	502.617	284.093
PC19	537.832	464.292	428.236	424.706	422.640	184.639

Table 5 – How the forecast has changed since PC19

These forecast costs have increased since last year's Price Control submission and the original Licence Application Business Plan for the reasons set out above in section 4.1.

[5] This excludes Switching costs.
[6] These values do not include the correction factor

Figure 4 below shows how the cost forecasts have changed over time. Note that these costs need to meet 'certainty criteria' so should not be considered as DCC's current view on the expected overall expenditure.

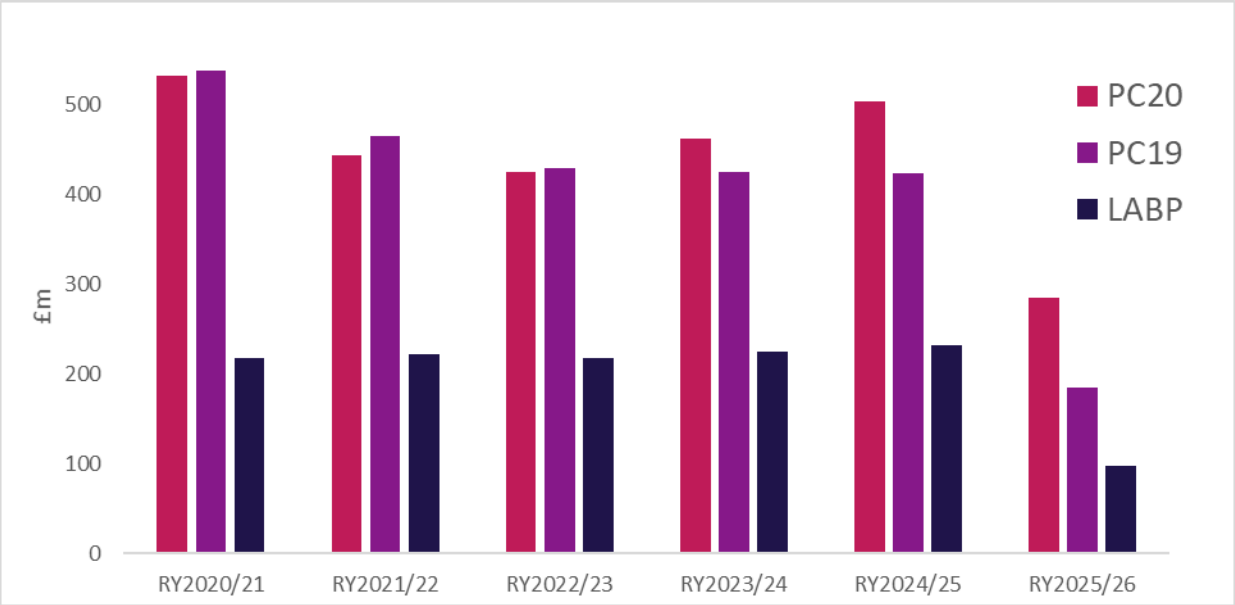

Figure 4 - How the forecast has changed since LABP and PC19

The forecasts submitted as part of Price Control must be sufficiently certain i.e. more likely to occur than not occur. For this reason, we continue to see variances between the Price Control forecast and the Charging Statement and indicative budgets[7]. The chart below illustrates that difference. This is discussed in more detail in PC20 Financial Reporting Commentary.

[7] These publications are accessible here: https://www.smartdcc.co.uk/document-centre/charging-methodology-statements-budgets/

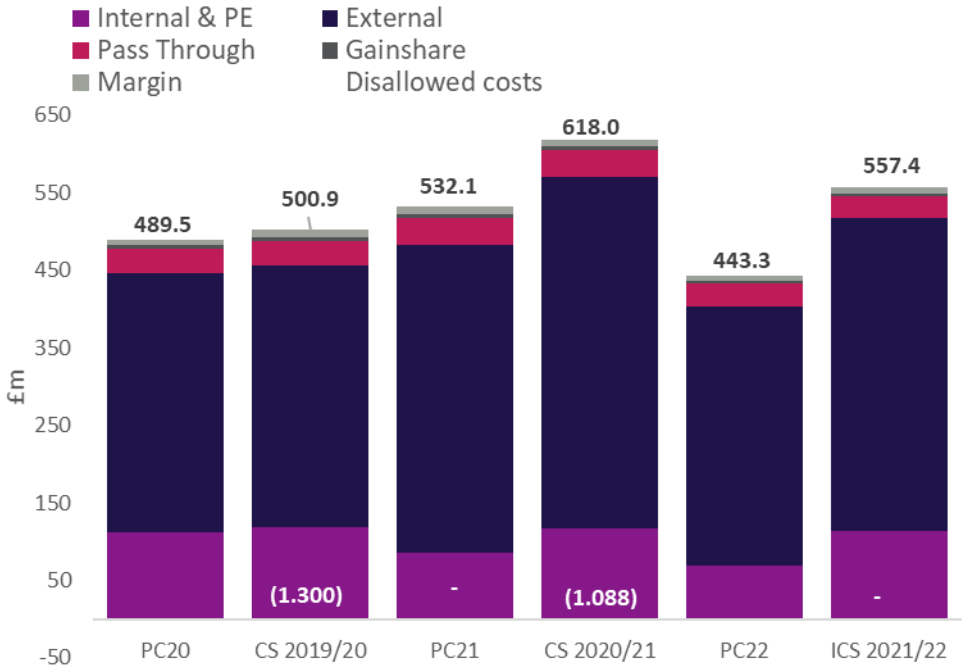

Figure 5 - Comparison of Price Control to Charging Statement[8]

4.4 Securing Value for Money and Savings for Our Customers

We are keenly aware that the costs we incur to implement and maintain the smart metering system are borne by our customers and we have a responsibility to them to deliver in a cost effective and economic way. In practice this means the organisation focuses on:

- Delivering efficiency and savings through our planned service development activities, exploiting technology, automation and new ways of working to deliver better service at lower cost.
- Using people and resources effectively, bearing down on contract and consultancy costs and driving savings through high quality competitive procurement.
- Continuing to improve the way we manage our supply chain, negotiating new contracts and holding our Service Providers accountable for their costs and service.
- Providing greater cost transparency through an increasingly customer-centric approach. Our new strategy commits us to improving clarity on our planned initiatives and carry out specific engagement activities for major initiatives.
- Provide more information on how efficiency savings are planned and realised for the different cost centres.
- Review how we benchmark the salaries of our staff to provide confidence that our recruitment offers value for money whilst allowing us to recruit the niche skills we require.

Through the application of the above, we deliver significant savings to industry and customers every year. One of the main ways we do this is through refinancing of the set-up costs associated with our SMETS2 FSP[9] contracts, the savings from which we share with those who pay for our services.

[8] This compares the total annual DCC costs excluding Communications Hubs Device Revenue, Explicit Charges and correction factor but including disallowed costs.
[9] These are the DSP and CSPs.

This year, for the first time we also provide details of the Smart Savings initiatives that the teams across DCC commit to in their annual business plan process and are measured against on a monthly basis.

External Contract Gain Share (ECGS)

Under the External Contract Gainshare arrangements, DCC is incentivised to seek opportunities for cost savings in the key service provider contracts (external costs). In RY19/20, we are proposing that over £9.2m will be returned to customers and industry as a result of the savings we have negotiated, including:

- DCC facilitating cheaper financing of SMETS2 FSP set-up costs.
- Financing of tranche 2 of DCC's Comms Hub.

Of the amount that DCC has saved, we propose just over £7m and £2.2m is returned to our customers and service providers respectively. The percentage of savings we return to industry and customers compares favourably with other regulated sectors such as energy and rail. In total, over the course of our Licence, cost savings have been made of more than £112.6m.

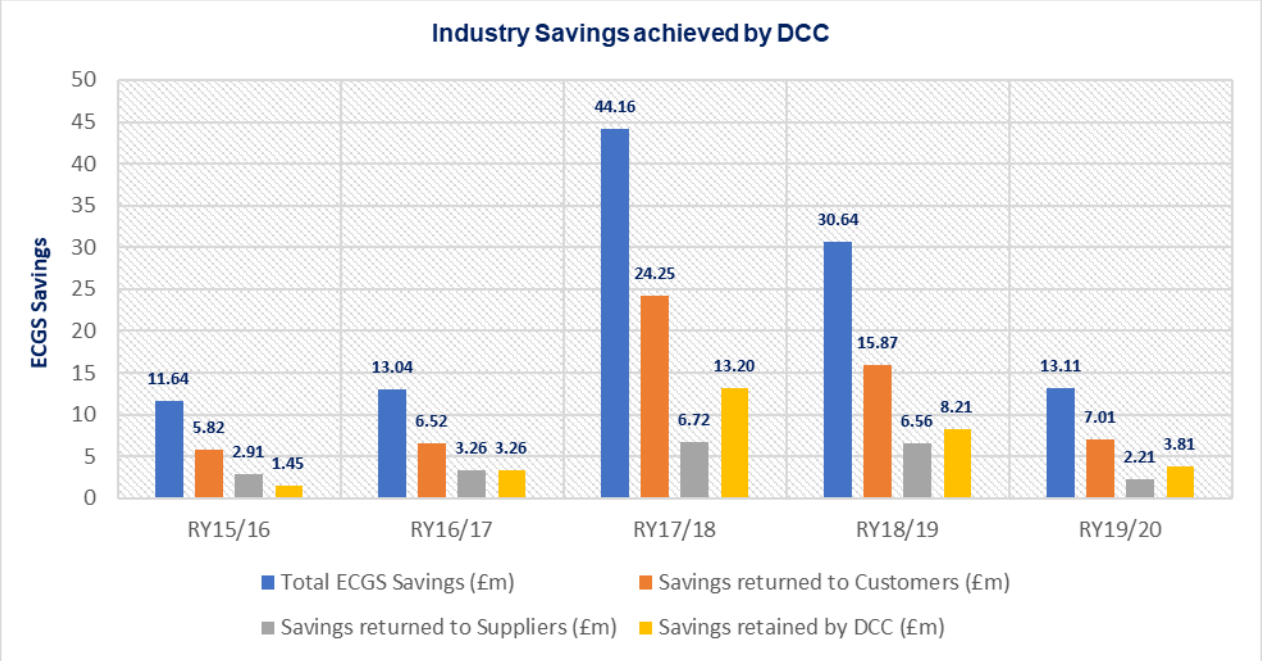

Figure 6 - Industry Savings achieved by DCC to date

The creation of a consolidated Test Labs 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 – we expect to formally apply for the ECGS in a future year.

DCC smart savings programme

Another way we have looked to achieve cost efficiencies is through the introduction of a Smart Savings Programme for DCC internal expenditure. This formalised our existing practice of constantly revisiting internal costs, being more transparent and engaging the DCC organisation to pool intelligence on possible initiatives. Every month colleagues across DCC get together to review opportunities and ensure they are on track versus their internal business plan forecasts.

This has led to in-year savings of £14.2m being achieved in RY19/20 through negotiations and redesign of working practices to enhance efficiency. These savings have been passed back to customers through reduced charges.

4.5 Emerging risks for RY20/21

At the end of RY19/20, measures enforced by the government to help manage the risk of Covid-19 began to have an effect on the smart metering programme and the way in which DCC manages its business and protects its staff. During the year, our extensive planning and contingency measures have put us in the best place possible to avoid any impact on our live services. However, in RY20/21, the pace of the roll out, along with the impacts felt by our suppliers in delivering their obligations will present performance challenges and potentially cost challenges. Some of these are external cost challenges such as the delays associated with a slower pace of roll out, while others are internal such as the cost of upgrading our office environments in line with government guidance.