Data Communications Company

Draft - Business & Development Plan 2022/23

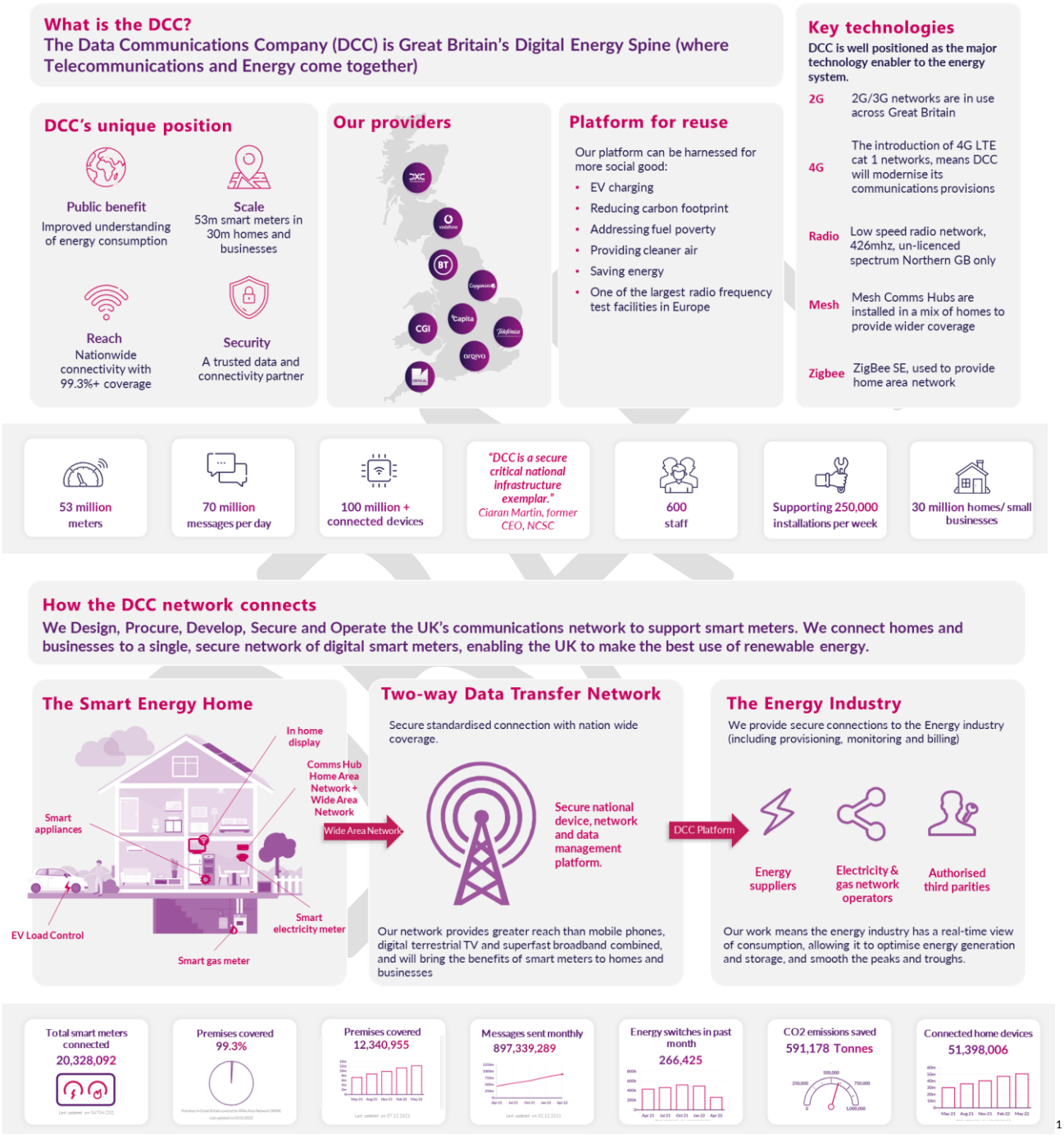
Version: 0.6
Date: 20.05.22
Classification: DCC Public

Contents

DCC Public

1. Who are we and what we do

DCC is a private company, a subsidiary of Capita plc, licensed by the Government and regulated by the energy regulator Ofgem to connect smart meters in homes and small businesses across Great Britain to a single secure, digital network. We support the roll-out of second-generation (SMETS2) smart meters, as well as the migration of existing first-generation (SMETS1) meters onto our network.



[1]

[1] Network coverage and statistics accurate as of 16.05.2022.

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Energy consumers benefit from having their meter connected to DCC's network as it allows them to switch suppliers without the risk of losing smart capability. This empowers them to take control of their energy usage, which in turn will help Britain to achieve Net Zero by 2050. In addition, other service providers can use the network as the foundation for new and innovative services, such as dynamic time-of-use tariffs and the active management of domestic demand.

Operating the DCC network generates a range of system data such as descriptions and timings of transactions. We believe that universal sharing of this data, in line with the principles laid out in the Government's National Data Strategy, can help the industry to develop new business models and propositions designed to tackle the social challenges of today, including the drive to reach Net Zero.

Our services also have potential beyond smart metering to include other key consumer-facing processes. We are working with Ofgem to deliver and operate a faster and more reliable Central Switching Service, which will enable energy consumers to switch energy supplier on the next working day. In addition, we have been commissioned by Ofgem to play a major role in the delivery of domestic half-hourly settlement, building on the foundation of the smart meter roll-out.

Additional information on the operation of the network, including numbers of devices, message volumes etc. have been included in the Appendix of this document.

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2. Market Context

The UK Government has set a target of achieving Net Zero carbon emissions by 2050. This requires the energy system to decarbonise, digitalise and decentralise, a transition which is already evident in the widespread use of renewable generation and growing number of electric vehicles. Managing an increasingly complex energy system will be possible only through widespread automation and use of data. Energy assets will have to be capable of sharing information and remotely controlled.

The DCC network has the capability to help drive this energy transition. Its unrivalled, nationwide reach and connectivity, together with its inbuilt security, provides a unique asset that can be re-used by our customers, the Government and regulators to support policy changes and deliver value for consumers.

As well as providing near real-time consumption data to consumers and helping them to manage their energy usage, the smart metering system can also enable innovative demand-side solutions and help to reduce overall energy system costs. As noted in the Net Zero Strategy published by the Government in October 2021:

> *"A key enabler for demand-side flexibility will be smart meters, which enable innovative products and services such as smart time-of-use tariffs. These tariffs reward consumers financially for using energy outside peak times, when demand is low or when there is excess generation available."*

We have reviewed the trends that we expect to be most relevant to DCC and the potential implications and opportunities for us. This is based on our own research, the insights of key stakeholders including customers and government departments, and insights from external advisors.

Key Trends

Decarbonisation and Net Zero Ambitions

In recent years, the Government has focused on decarbonising energy and, more latterly, transport. It has developed overarching, as well as sector-specific, strategies to set a trajectory to a decarbonised economy by 2050. However, the precise path to Net Zero has yet to be decided, with several routes being considered by the Government and industry.

Much of the decarbonisation of energy to date has come through changes in generation as fossil-fuels have been replaced by renewable sources. As more intermittent generation is connected to the distribution networks, the system will become more complex to operate. Balancing supply and demand at a local level will become increasingly necessary, but also more challenging. To further complicate matters, it is estimated that electricity demand in Britain could double by 2050, as sectors such as transport or space heating are electrified.

Local balancing will require greater use of flexibility services such as Demand-Side Response (DSR) and a significant increase in the availability of electricity storage. Assets such as heat pumps and electric vehicles (EVs) can be used for DSR, with EVs also capable of acting as storage. However, while such assets can contribute to balancing, their use can also result in increased overall demand and higher peaks, which might prove a threat to grid stability. This will require the active management of power flows on the network, alongside further investment in network assets.

The Distribution Network Operator (DNOs) will need to develop new capabilities as their role changes to that of Distribution System Operators (DSOs). We are proactively working with DNOs to support their transition, with activities organised under the "DNO Transformation Programme" (see Priorities & Plans section).

What could this mean for DCC?

DCC could help to facilitate decarbonisation and the DNO-DSO transition in the following ways:

- Using our secure network to enable load control and the balancing of distributed energy and flexible assets such as solar, EVs, heat pumps and storage
- Transmitting half-hourly data on generation, demand and low voltage network measurements to DNOs and system operators to help them manage network constraints more effectively
- Providing a secure, central register of assets connected to the distribution networks, such as decentralised generation or load
- Supporting the wider use of secondary metering to enable the electrification of transport, heat, and other smart appliances

Digitalisation and Data

Digitalisation and data have transformed various sectors including banking and healthcare. Access to data is essential to inform decision making and to direct activity. It can aid us in modelling potential outcomes and to automate certain actions. In the energy sector universal, free data access and sharing has the potential to accelerate the nation's efforts to reach Net Zero, as described in the Government's National Data Strategy.

Delivering improved outcomes through the better use of data is a cornerstone of government policy. There have been several significant policy interventions - such as the Strategy and Action Plan for Digitalising our Energy System for Net Zero, published in 2021 - which provide a vision, approach and suite of actions for digitalising the energy system. Taking forward the actions from the National Data Strategy, the Department for Digital, Culture, Media & Sport (DCMS) is working on reforms to the UK's data protection regime.

The recent Energy Digitalisation Taskforce (EDTF) report, commissioned by the Department for Business, Energy & Industrial Strategy (BEIS), made recommendations to unlock the power of data. Better use of energy data stands to benefit all players in the system including:

- Network operators (network planning and system operation)
- Energy suppliers (in better hedging of demand and supply)
- Consumers (dynamic tariffs and differentiated products)
- Regulators and policy makers (in decision making)

What could this mean for DCC?

The EDTF has advocated the use of smart meter data for the public good. By providing access to smart meter and system data, DCC could support research, inform policy and enable problem solving. This data could also be useful in providing services to consumers, such as through better targeting of energy efficiency measures.

For example, we are currently participating in the Modernising Energy Data Applications (MEDApps) competition to assess how smart meter system data, when combined with other data sets, can help to identify geographic areas where there is a higher probability of consumers being in or at a risk of fuel poverty.

Retail Market Turbulence

In recent years, there has been a policy of promoting competition in the retail energy market, with many new suppliers entering the market, leading to much greater rates of switching by consumers. However, while selling energy at low cost, many of these new entrants were poorly capitalised, leading to a steady stream of small suppliers going into administration. The shock to the sector caused by the sudden and extreme rises in wholesale energy prices in 2021 has resulted in an unprecedented number of supplier failures in recent months.

What could this mean for DCC?

It is important for the industry to provide value to consumers while remaining sustainable. Customers will need access to a range of products tailored to their needs which will enable them to manage their energy usage better and reduce their bills. There will also be a growing role for new players in the market such as flexibility providers, aggregators and EV charge point operators.

As well as continuing to support our existing customers, DCC will need to make sure that our services can adapt to meet the needs of potential new customers by providing a platform for these new products and services.

Delivery of Market-Wide Half-Hourly Settlement means that energy suppliers will be exposed to the half-hourly costs of consumer consumption, rather than estimated costs as at present. This will encourage the introduction of time-of-use tariffs, which in turn will incentivise customers to shift their consumption to times when energy is plentiful and cheap. For more information see Section 4: Priorities and Plans – Market-Wide Half-Hourly Settlement.

Cost-of-Living Crisis

On 1 April 2022, we saw an unprecedented rise in the energy price cap, leaving a typical household facing an average increase of 54% in energy bills, or an extra £693 a year. For households struggling to cope financially, this represents a very significant challenge, compounded by general price inflation at rates not seen for 30 years and tax rises. This chain of events has placed millions of households at risk of falling into fuel poverty and sharpened the focus on protecting the vulnerable.

What could this mean for DCC?

In these circumstances, it is imperative that DCC has a strong grip on cost efficiency so that we do not add unnecessarily to the pressure on household energy bills. We will also work with the Government and the industry to explore how smart meter data can be used to help suppliers identify and serve their more vulnerable consumers in the most efficient and effective way.

There are several potential DCC opportunities which link to these key trends and are in various stages of discussion with the Government and Ofgem. See table in Section 5: Priorities and Plans - Mandated Growth

3. Strategy and Core Capabilities

As part of the secure digital spine for the energy system in Great Britain, DCC has a central role to play in the transition of the energy market through decarbonisation, decentralisation and digitalisation. A significant investment has been made by consumers in building the DCC infrastructure and we have proven we can work at scale on a 24/7 basis, with coverage of more than 99% of premises across the country. This unrivalled reach and connectivity, combined with the inherent security of our network, makes it a unique asset that can be leveraged by our customers, the Government and regulators. It provides a vehicle to implement the policy interventions that will aid the energy transition, and to deliver public benefits and wider social value.

In thinking about the DCC's position in the wider energy system, we have articulated our ambitions as follows:

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

Our Mission: To digitise the UK energy system, enabling innovation and re-use of the DCC network to drive decarbonisation and social good.

Our Strategy: To realise our mission and vision we have the following five Strategic Priorities, which were set out in last year's Business and Development Plan:

Smart Meter rollout	Support the successful smart meter rollout across Great Britain by (Dec 2025) by maintaining and improving the DCC'S secure data network and our complementary services.
System Enhancement	Ensure that the DCC network remains fit for purpose and is able to respond to change and future demands by adopting new technologies and seeking innovative ways of working with our service providers to ensure ongoing improvements and value for money for our customers.
Mandated	Successfully deliver the programmes over and above smart metering that are mandated by Government or the regulator in a cost-efficient and transparent way to enable the transformation of the energy system for wider customer and social benefit.
Re-use	Identify and promote ways to re-use the DCC secure network with the objective of reducing charges for our customers, enabling the delivery of social good and supporting the net zero carbon objective.
Culture and Capability	Ensure DCC remains fit for purpose, delivers value for money with an agile and flexible workforce that can support the needs of our customers.

The Strategic Priorities were developed in consultation with our customers and reflect their feedback that we should focus on the delivery of our core mandated business and the maturing and improvement of these services once in operation.

The programmes and initiatives that will deliver each Strategic Priority are described in Section 4: Priorities and Plans.

DCC Capabilities

Our technical and organisational capabilities support the delivery of our Strategic Priorities.

The smart metering communications network provides the following core capabilities:

- **Reach** – By the end of roll-out, the smart metering network will cover at least 99.25% of Great Britain. We will be connected to 53 million meters in 30 million homes and premises
- **Connectivity** – The DCC network can send and receive instructions and data to and from 'smart devices' outside the internet, initiating tasks or processes
- **Security** - The smart metering architecture has been developed with the NCSC to ensure that robust security controls are included from the initial stages of design
- **Data** – The data flowing across the network provides information on the behaviour of energy users in Great Britain. This data could be used to improve management of the energy system and to help in the development of new products and services for consumers
- **Load control** – This functionality is already available on the DCC platform and could be used to balance the local grid and enable demand-side response market participants

In addition to our smart metering capabilities, we have also been entrusted with delivering significant reform to the energy supply switching process.

The Central Switching Service (CSS), which DCC has designed and built and will shortly go into live operation, provides the following core capabilities:

- **A registration service** – Maintains a central database that links meters, their locations and current energy supplier for the whole of GB
- **An address service** – Maintains a set of standardised GB addresses to create a unique address called the Retail Energy Location (REL) address

The smart metering network and CSS are not the only capabilities delivered by DCC. From the very beginning of our business, we have built an organisation capable of delivering complex, technology-enabled change programmes.

Our core capabilities as a delivery organisation include:

- **Design, programme delivery, test management and assurance** – We have designed and built one of the most complex pieces of digital infrastructure in the world
- **Device management** - We have had to develop highly technical processes and systems to support thousands of device model combinations in use across the industry
- **Contract management** – We have significant expertise in designing, procuring, and managing complex, high-value contracts related to SMETS1 meters and switching
- **Technical and service operations** – We proactively monitor our network on a constant basis using best practice to maintain the availability of our systems, while also providing operational insights to our customers, the Government and the regulator
- **Security operations** - We have built a 24/7 Security Operations Centre, which actively monitors security threats and will be accredited to the highest industry standards this year, ensuring that we achieve and maintain world-class status

Our operational assets in the form of the DCC network and CSS, combined with the experience and knowledge of our people, provides a powerful vehicle for the Government and Ofgem to continue driving innovation and reform in the energy sector.

Strategic Planning and Prioritisation Process

We have implemented the following hierarchy and strategic planning process to ensure there is alignment between our long-term strategy (Vision & Mission); the Strategic Priorities contained within the five-year Business and Development Plan (BDP); and our detailed annual business plans and budgets.

DCC's Vision & Mission sets the context for our planning processes. These are carried forward in this document (BDP) which sets out our priorities and plans over the next five years. This is reviewed and updated on an annual basis, as required by our licence.

Our detailed business planning process sets our specific deliverables and resource requirements over the next five years and provides three-year financial forecasts. Business plans are set on an annual basis.

We forecast three-year financials on a quarterly rolling basis to give customers certainty over DCC charges. These are published in our quarterly charging statement and presented to customers at the Quarterly Finance Forum (QFF).

Most of our programmes are mandated by the Government, the regulator or through industry governance. For mandated activity, we have scope to decide how priorities are delivered and we consult customers throughout this process.

We consider any unmandated activity based on its alignment with our Strategic Priorities and the need to deliver clear benefits to our customers. In addition, we consult with our customers on any material expenditure before any commitments are made.

DCC's Technology Strategy

Enabling an enduring solution for smart metering

The DCC smart metering platform was based initially on services provided by three "Fundamental Service Providers" (FSPs). Over the last four years, with the introduction of new mandated activity, the number of FSPs has increased to more than 20.

DCC's technology function, known as the CTO, ensures that we:

- **Secure** the operation of our services through design and testing excellence. During 2022/23 we will commence the replacement of many of our core systems as they approach technology obsolescence and require system enhancements. Such upgrades and replacements will also maintain and improve our security capability
- **Scale** the operation of our service. By March 2022, more than 19 million meters had been connected to our network. We are currently seeing around 17,000 meter installations a day and we carry more than 700 million messages each month. As we move towards 2025, we will ensure that our systems scale up and operate to meet our customers' requirements
- **Determine the future architecture** required to support DCC's business model and strategy by horizon scanning and engaging in discussions with stakeholders to create a technology roadmap. This will involve determining the key decisions that the roadmap needs to inform — and, therefore, the level of information that it should capture – as well as collaboration with customers and stakeholders to ensure that it meets their requirements

Through our Network Evolution Programme we are delivering the enduring technology platform for the Smart Metering Implementation Programme, cementing our role as part of the secure digital spine of the GB energy system. (For more information see Section 5: Priorities and Plans - Network Evolution Programme).

Usage of the DCC platform will continue to grow as our customers' needs evolve. Modelling future demands on the network is critical to ensuring that the required capacity is available when needed and at the optimum cost. To model the cost and technical options for investing in the network we are required to forecast demand and capacity over a five to 15-year strategic horizon[1]. This involves dialogue with our customers about their future needs and consideration of how market trends may affect network usage. Through forecasting demand and its profile - i.e. at what time of the day messages are sent - we can invest in the required network capacity more efficiently and reduce the costs for customers.

Building on DCC's Capabilities

DCC has a licence objective to facilitate competition in the sector and seek opportunities for re-use of the network, helping to reduce charges to our customers for mandated services.

With the launch of public discussions on the renewal of the licence in 2021, the DCC Board devoted time to considering the organisation's medium and long-term strategy. The Board's view was that our primary role should be the delivery and operation of our core regulated services, namely smart metering and switching, as well as any other services which are mandated to us to deliver or operate. However, given the licence objectives to facilitate competition and re-use, as well as the ongoing transition in the energy system, the Board felt it was also appropriate to explore the following areas of opportunity:

- **Government mandated growth -** To seek and secure mandates for the development of new services as a partner for the Government and Ofgem in delivering their policy objectives for the energy sector and in supporting the energy transition

[1] All network investment decisions to increase the size of the network will be formalised through SEC governance. SEC Modification (MP116) establishes an enhanced forecasting process and variance reporting with customer support, which will help enable DCC demand modelling.

- **Customer-led system enhancements** - To deliver new products and services that are demanded and valued by our customers. This should include enhancing existing systems and capabilities, but also providing new functionality or complementary tools to enable customers to deliver their smart metering obligations more cost effectively or to develop new and innovative products and propositions
- **Elective communications overhaul -** To develop and launch a new elective service process which enables customers to make self-serve changes to the DCC platform quickly and at low cost. This will provide a mechanism to help deliver bespoke capability or enhancements for individual customers on a bilateral and commercial basis

For more information on the opportunities currently being discussed with the Government, Ofgem and our customers please see Section 4 Priorities and Plans – Strategic Priority 4: Re-Use.

Part of the Government's original vision for DCC was that the capabilities of the smart metering network might be re-used in markets other than energy. Following feedback from BEIS, Ofgem and customers, our activity in this area will be very limited during this licence period. We do not anticipate reconsidering this until the smart metering roll-out is concluded.

Licence Renewal

DCC operates under the Smart Meter Communications Licence which was granted by the Department of Energy and Climate Change, now BEIS, for a period of 12 years. The licence came into effect on 23 September 2013 and so is due to expire in 2025, although Ofgem does have the option of extending the current licence by up to six years beyond that date.

This is the first Business and Development Plan we have produced whose five-year timescale extends beyond the end of the licence term. As a result, this section will describe briefly the process Ofgem has initiated to define the regulatory arrangements for a new licence period from 2025-2040. It will also set out how we intend to treat events or projects which could continue into the next licence period.

Defining a new licence

In February 2021, Ofgem issued a public call for evidence on the effectiveness of the current regulatory arrangements for DCC with the aim of scoping out a review process. This included considering the vision and purpose of DCC in a new licence period, as well as our ownership model. A consultation identifying a way forward is expected to be published shortly. We will continue to monitor the process and contribute where our experience can add value.

Impact of end of licence

We have a responsibility to deliver our programmes and operational services through to the end of the current licence, but also then to ensure continuity into a new licence period in whatever form that takes. So, this document reflects that approach and assumes that, at an operational level, activities such as contract renewals and programme delivery will continue into a new licence period.

4. Priorities and Plans

This section sets out how we will deliver each of our five Strategic Priorities, describing the key programmes and initiatives within each priority. The table below sets out these projects, together with their anticipated timelines:

Strategic Priorities	Programmes and Initiatives	2022/23	2023/24	2024/25*	2025/26	2026/27
Smart meter rollout	Operating Live Services and Network Capacity Planning					
Smart meter rollout	Dual-Band Communication Hub (DBCH)					
Smart meter rollout	SMETS1 Enrolment and Adoption					
Smart meter rollout	Enduring Change of Supplier (ECoS)					
Smart meter rollout	DNO Transformation					
Smart meter rollout	Technical Refresh					
System Enhancement	Network Evolution - DSP Data Systems					
System Enhancement	Network Evolution - System Integrator					
System Enhancement	Network Evolution - Service Management System					
System Enhancement	Network Evolution - Communcations Hubs & Networks					
System Enhancement	Network Evolution - Trusted Service Provider (SMKI)					
System Enhancement	Network Evolution - Test Automation Framework					
System Enhancement	Security					
System Enhancement	Smart Energy Code and Retail Energy Code - In-Life Change					
Mandated	Faster More Reliable Switching					
Mandated	Market-wide Half Hourly Settlements					
Re-use	Elective Communication Services (ECS)					
Culture and Capability	Business Accuracy					
Culture and Capability	Strategic Workforce Planning					
Culture and Capability	Culture Transformation					

Key:

Development and Implementation	
Operation and Continuous Improvement	
* End of licence 30 Sep 2025	

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Customer feedback

We sought customer and stakeholder feedback on some of our priorities and plans at customer workshops in February 2022 and via a consultation on the draft Business and Development Plan document in May. The Appendix (Business and Development Plan Workshop Feedback and DCC Response) provides a summary of the feedback received at the workshops and the actions we have taken in response. To avoid duplication, we have also used the feedback from other engagement activities run directly by our programmes and initiatives to inform this section.

Strategic Priority 1: Smart Metering

To support the successful smart meter roll-out across Great Britain by maintaining and improving DCC's secure data network and our complementary services.

Our primary responsibility remains the continued delivery of a stable, reliable, and secure smart metering platform with a coverage level and capacity that enables our customers to meet and exceed their roll-out targets. The Operational Performance Regime, set by Ofgem, incentivises DCC to continuously improve on our operational performance metrics, including our annual Price Control to ensure that we provide value for money.

In recent years, we have implemented several programmes which have added to the functionality of the smart metering network, such as Dual-Band Communications Hubs, and further enhancement programmes will continue in the short to medium term. This has required us to manage the complexity of operating the core service while integrating multiple new system releases each of which impacts on day-to-day operations. Over and above this additional functionality, we recognise that improvements to the service can be made, and we will continue to work closely with our customers to identify and implement these.

DCC Operations will continue to scale and evolve to handle the increasing volume of SMETS2 installations, the migration of dormant and active SMETS1 meters, which requires the management of over 2,000 device model combinations, and the introduction of the Central Switching Service. To ensure that we are ready to address these challenges effectively, we have taken several steps across all core elements of our live services.

Customer Relationship Management

Through regular service reviews with our customers, we provide data and insights to help them improve their own performance. We will build on these reviews by looking for further ways in which we can support our customers to take greater control of their estate and to optimise their processes. Initiatives such as Standardised Customer Analytics Reporting demonstrate how we are trying to achieve this (see section Standardised Customer Analytics Reporting).

During 2022/23, we are aiming to gain improved insight into the pipeline of change that will be requested by customers, and the demand generated by future initiatives and improvements to our service. We will hold this strategic dialogue with customers through service reviews and workshops. In response to changing customer demands and expectations about how they interact with DCC, we will be exploring wider use of automation and customer self-service where possible.

Products and Logistics

Our Products and Logistics team works closely with energy suppliers and the supply chain to ensure that communications hub deliveries are maintained. In 2021 we delivered 99% of the total volume ordered despite unprecedented challenges from COVID-19 and global silicon chip shortages. DCC worked with our customers, Customer Service Providers (CSPs) and BEIS to adapt to the volatility in demand, keeping the supply chain moving and responsive. Global influences remain a factor in technology supply chains in all sectors and we continue to work with CSPs to improve supply chain resilience and our business continuity plans.

To meet the evolving needs of our customers, DCC plans to introduce new capabilities that will support enhanced return arrangements for communications hubs and optimise the ability to re-use devices including Bulk Returns, Firmware Reflash and Supplier of Last Resort. A Communications Hub Stock Redeployment capability will also enable the movement of stock between customers where required, following successful trials last year.

The SEC Communications Hub Ordering and Delivery Rules will evolve to support our customers better through improved flexibility to amend orders, enhanced understanding of customer demand and changes in supply chain lead times. The rules will support seamless and rapid transition from 2G and 3G communications hub variants to our next generation 4G communications hubs, ensuring that we can meet customer demand while optimising stock levels across the industry.

We will adopt best practice processes in delivering communications hub device model and firmware Over-The-Air (OTA) upgrades to help drive industry operating improvements in the delivery of new and upgraded meters, as well as other devices using a Home Area Network (HAN).

We will also develop new operational data analysis and reporting to identify the in-life performance of individual device model/firmware combinations and HAN configurations of all devices simultaneously connected to a communications hub. This will lead to improved network performance and service delivery, while helping to reduced costs for DCC and the industry.

Service Assurance

The priority of our Service Assurance team in 2022/23 is to support greater coordination across DCC Operations and to further develop a service-oriented approach using standards and policies.

We are progressing well with the introduction of ISO22301 (Business Resilience), along with core assurance policies that “bind together” the functions within DCC which contribute to the delivery of live services. During this transformation, we will focus on improving the quality and efficiency of our delivery and services, while mitigating operating risks.

In addition, a key focus for DCC Operations will be the introduction of the Central Switching Service (CSS), as DCC takes on the role of operator of the live service with associated regulatory obligations under the Retail Energy Code (REC) (for more detail see Faster More Reliable Switching section). We are applying Service Assurance team principles to support preparations for the Switching Programme Go-Live, the Service Transition, and early-life “Hypercare”.

Supplier Relationship Management

Our overarching objective is to deliver service stability, reduce failure and drive value and continuous improvement through the development of trust-based relationships with our commercial partners and suppliers. To achieve this we have and will continue to drive changes to how we work, both internally and externally. The key actions that will allow us to achieve these objectives are:

- Driving a shift change from focusing on contractual Key Performance Indicator (KPI) delivery to focusing on customer outcomes
- In support of the above, development and delivery of reporting frameworks that allow DCC and supporting suppliers/partners to see and understand the role they play in delivering these customer outcomes, for example:
    - Ensuring our IT Infrastructure Library (ITIL) frameworks are not only single supplier focused but also connected at a service level
    - Owning and driving service-level performance review frameworks, which will complement the current individual contractual level reviews
- Improved engagement and communication with our suppliers, ensuring a 'one voice' approach
- Engaging earlier in the development of programmes to share experience-based solutions for shaping future contractual frameworks and ensure that lessons learned are embedded, including how to transition new services from programmes to in-life management
- Increased bench strength for the internal teams who lead these relationships, ensuring that we complement our current deep technical experience with a broader set of senior Supplier Relationship Management (SRM) capabilities

Commercial Management

We recognise that we depend on our key suppliers to deliver mandated obligations in a way that is cost effective, resilient, and timely. We are therefore committed to developing our SRM capability with the aim of generating significant and sustainable value through aligning our suppliers with DCC's objectives.

This will require us to:

- Enhance our existing programme, commercial, and service-related performance management activities - which are focused on ensuring delivery in line with contractual obligations – by adopting a more strategic approach to the management of our key suppliers across the full breadth of our relationships
- Become adept at driving continuous improvement beyond contracted levels of performance where it makes sense to do so - in line with DCC's twin goals of value for money and service excellence - underpinned by appropriate incentives
- Invest more time in building relationships with our key suppliers to position DCC as a ''customer of choice'' and receive preferential treatment that brings tangible business value - for example, via early access to new products or services that will improve our operational capabilities and through influencing supplier roadmaps in a way that will underpin the evolution of our network
- Build our SRM capability, coupled with new ways of working, as part of a wider commercial transformation based on industry best practice, embedding SRM as a core, cross-functional, business discipline

Ensuring Reliability and Stability

We focus on continuous improvement with our suppliers and have been paying special attention to improving operational stability in the North region, working with our infrastructure partner Arqiva, device vendors and our customers to resolve key performance issues.

As of March 2022, we are achieving 98.3% success rates for firmware downloads onto communications hubs, which represents a significant and sustained improvement on previous performance. We are now seeing comparable achievement of firmware downloads across the three CSP regions.

Last year DCC initiated "Scaling and Optimisation", an activity with Arqiva, supported by BEIS, to review the current CSP North design against current and future requirements and identify solutions for evaluation and discussion with customers.

Phase 1 of Scaling and Optimisation is focusing on detailed scenario modelling of current and future demand, usage profiles and the identification and preliminary assessment of uplift solutions to bridge the gap between the current design and the end-state requirements. Modelling is in the advanced stages and due to conclude in June 2022, with the output and associated conclusions to be shared with customers in July or August.

Phase 2 will focus on working with Arqiva and customers to evaluate and progress technical and non-technical solutions to ensure that requirements are met at scale. It is expected that the scope will include both the expansion of existing capabilities and the development and implementation of new capabilities to increase the throughput capacity and efficiency of the network.

It is anticipated that customers will be heavily involved in Phase 2 and, as appropriate, solutions will be progressed via the formal Smart Energy Code (SEC) governance processes.

DCC's technology function (CTO) is reviewing opportunities to improve traffic management and the treatment of messages across the network, taking into account changes in traffic usage patterns and increase in demand. We remain committed to maintaining a customer-centric approach while finding the right balance in our technology strategy and delivering value for money.

Demand and usage of the network is forecast to increase by 500% over the next four years, driven by the continued roll-out of smart metering, the introduction of Market-Wide Half-Hourly Settlement (MHHS) and emerging DNO needs. Recent analysis has shown that Great Britain Companion Specification (GBCS) payload is an increasingly important facet of the future DCC demand profile. The strategic technology interventions we are developing recognise the change in customer usage patterns and reflect the need to change. CTO interventions have focused on four key themes:

- The introduction of a scalable centralised data cache where data will be stored and aggregated for onward transmission to users on request, reducing reads and large payload demand across the network
- An enhanced traffic prioritisation solution, to provide certainty of delivery of time-critical messages, configurable by the customer
- Improving the utilisation of available capacity across the network and optimising the scheduled read of data whilst maintaining Service Level Agreements (SLAs)
- Pursuing the development of compression techniques of GBCS payloads to reduce the load over the Wide Area Network (WAN) and release capacity for growth

CTO and DCC Operations will engage users on technical and policy changes as these solutions develop through the SEC Panel, the Technical Architecture and Business Architecture Sub-Committee (TABASC) and existing bilateral governance arrangements.

Network Capacity Planning

Short to medium term

DCC routinely performs capacity planning to ensure that we can meet our customers' business needs and to anticipate demand from new requirements. This enables us to align capacity with customer demand and optimise any expenditure required to increase capacity.

Every quarter our customers forecast the volumes of service request messages they expect to send and receive over the following eight months. We combine these with operational insights to create a long-term aggregate forecast of traffic through our network infrastructure.

We monitor and model service traffic, performance, utilisation and the supporting infrastructure. We engage with our partners to build strategic plans that address the future requirements of the service and enhance its resilience and agility as it scales up. SEC Modification (MP116) will establish an enhanced forecasting process and variance reporting with customer support.

The breadth and depth of the data captured by DCC is leveraged to provide more accurate short and long-term forecasts of load and system performance, which can then be used to inform design improvements and demand-response actions. It is important to find ways to enhance capacity and we aim to put in place mechanisms to manage traffic flow.

We apply similar principles to cover switching and half-hourly settlement. Specifically, we are modelling and forecasting future usage, so that we can be proactive in predicting and managing future utilisation as well as potential capacity constraints. This will help to prevent service degradation and potential outages, as well as building our understanding of how future configuration changes might affect current and projected performance. Through forecasting demand in this way, we can invest more efficiently in network capacity, and therefore provide value for money and reduced costs for customers.

Medium to long term

DCC's new approach to strategic network capacity recognises the importance of assessing capacity and technology needs on a continuous basis over an extended time horizon. We will develop a robust methodology that predicts and prevents capacity issues from manifesting in the live operation, while maximising value for money.

Our medium to long-term planning will be underpinned by the evolution of our technology stack and validated through our new Network Economics function to ensure we are embedding value for money in our technology selection process.

We will work closely with our customers to understand their aspirations and future network demands so that we can forecast our network capacity and the evolution of our technology stack. We intend to have a clear line of sight to how our technology enablement strategy will meet the growing capacity needs of our customers over a 15-year horizon. We will have the right technology enabled, at the right place and time, embracing re-use and the development of economies of scale as they become available.

Smart Metering – New Functionality

The following section covers our key programmes delivering new functionality for our customers in support of the smart metering roll-out.

Great Britain Companion Specification (GBCS)

The GBCS sets out data security and other operational standards for communications hubs. BEIS continually reviews GBCS standards to ensure that data security is maintained in line with new and emerging threats. DCC is mandated by BEIS to develop, test, and deploy new firmware (FW) to all operational communications hubs in line with each update of GBCS.

Currently, we are working closely with CSPs to deliver GBCS version 3.2 compliant communications hubs, and the delivery timetable for 2022 is shown below.

Timeline	
GBCS 3.2 FW North Dual Band and Single Band CH	• The availability of Dual-Band, Dual-Band Fylingdales and Single-Band Communications Hubs on the Certified Product List (CPL) is to be confirmed and is dependent on Commercial Product Assurance (CPA) certification being progressed by EDMI's test house. The indicative delivery date is August 2022.
GBCS 3.2 FW Central and South Single Band CH	• Toshiba communications hubs are expected to be available on the CPL in August 2022. • GBCS 3.2 Central and South Dual-Band Communications Hubs were delivered in the supply chain in February 2022.

The next major upgrade for GBCS will be GBCS version 4.1. Delivery plans are in the process of being finalised.

SMETS1 Enrolment and Adoption

The SMETS1 Enrolment and Adoption Programme is enabling the migration of more than 16 million first-generation SMETS1 smart meters onto the DCC network where they will become fully interoperable between energy suppliers. This will allow consumers to switch energy suppliers seamlessly without losing smart functionality and will also deliver significant savings to the industry through the consolidation of commercial contracts. It stimulates competition in the retail market and allow consumers to enjoy the full benefits of products and services which depend on smart metering.

The programme is complex and technically challenging, involving multiple hardware and software combinations operating in a live environment. The migration and operation of each cohort has required the deployment and integration of a new platform. All cohort migration capabilities went live between August 2019 to February 2021.

Final Operating Capability

While the Final Operating Capability (FOC) was delivered in February 2021, there have been ongoing deployments to stabilise the platform and upgrade devices to new firmware where device-related issues have been identified.

There are residual activities ongoing for devices that became eligible for migration after January 2022, which DCC is prioritising, and device migration will occur as soon as the retail suppliers make them available.

Migration performance

As of May 2022, more than eight million SMETS1 meters across our three cohorts have been successfully enrolled on the DCC network, including 3.64 million previously 'dormant' meters which have had their smart capability restored.

Enrolled Meters	Initial Operating Capability (IOC)	Middle Operating Capability (MOC)	Final Operating Capability (FOC)	Total
Active	2,290,395	2,458,180	353,987	5,102,562
Dormant	1,000,411	1,354,571	1,284,522	3,639,504
Total	**3,302,882**	**3,831,637**	**1,638,509**	**8,773,028**

Our migration performance remains strong, with over 99% of migrations delivered 'right first time' (RFT).

Post Migration

Our customers have welcomed our Migration Control Centre (MCC) and Hypercare capabilities, which help the industry to coordinate meters in readiness for migration and provide real-time monitoring after migration.

It is imperative that energy suppliers make the meters operational as soon as possible post migration to ensure that consumers can benefit fully from smart functionality. We are working closely with our customers, BEIS and Ofgem to make sure this happens.

Ending SMETS1 migrations and transition to business as usual

We are preparing for the closure of DCC's Migration Service and the transition to in-life operations. Energy suppliers have a licence requirement to conclude all migrations by 31 December 2022, at which time they should have taken all reasonable steps to enrol their SMETS1 meters on the DCC system. We have consulted on a plan to end the Migration Service for all cohorts as follows:

Cohort	Migration Service End Date
Middle Operating Capability (Morrisons Data Services)	10 July 2022
Initial Operating Capability (IOC)	21 August 2022
FOC (Npower SMETS1 Smart Meter System Operator)	Q3 2022
FOC (British Gas SMETS1 Smart Meter System Operator)	Q4 2022
Middle Operating Capability (Secure)	Q4 2022

Device swap outs

DCC currently supports device swap outs for all SMETS2 devices and SMETS1 Prepayment Meter Interface Devices (PPMID). However, other SMETS1 devices[1] cannot currently be swapped out for a new SMETS1 device. If a SMETS1 device (other than a PPMID) needs to be replaced, it requires a complete SMETS2 replacement.

DCC recognises the need of our customers for SMETS1 device swap outs. We envisage that device swap outs, in line with regulatory requirements, will be used to replace single devices within a SMETS1 installation with a new or refurbished SMETS1 device. DCC is considering the best means to provide this capability cost effectively for customers and consumers.

Distribution Network Operator (DNO) Transformation Programme

The DNO Transformation Programme has been established to ensure there is a focus on meeting DNOs' specific requirements in relation to smart metering, especially consistent and accurate reporting of power outage alerts. Once delivered, the programme will ensure that DNOs can leverage DCC services to deliver a cost-effective and quality service to their customers, improving fault response and assisting in targeting network investment.

Projects and outcomes

There are five key projects and workstreams that will be delivered during 2022/23.

SECMOD MP096 - We are working with DNOs to improve SMETS2 Power Outage Alert (POA) performance and ensure that requirements for POAs are integrated into the design of our Network Evolution Programme (NEP). This will allow us to reconcile the POA requirements laid out in the SEC with what is required by the DNOs and what is deliverable by the network.

Reporting project – We are building automated DNO reporting packs that will provide actionable data for key performance measures and develop data insights to enable performance improvement and optimisation of DNO networks. This builds on work in 2021/22, when we delivered four reporting packs with visuals, raw data and user guides consisting of customised operational data as defined by the DNOs.

Service improvement project – We have established a joint, prioritised and change-controlled view of the current backlog of DNO service issues and an improvement plan to resolve these. The project will also develop a Memorandum of Understanding (MoU) with industry parties - primarily meter manufacturers, DCC and DNOs - to agree best practice for meter testing and downstream firmware defect management. Some actions have already been implemented, leading to a streamlined meter testing process and a reduction in the number of days required to test. Overall, this has reduced costs, while also freeing up testing capacity for other purposes. These process improvements will be formalised through signing the MoU.

During 2021/22 we resolved the majority of the 28 key service issues identified at the start of the programme and, working with the DNOs, completed firmware testing on production releases for Landis and Gyr, Aclara, Honeywell and EDMI meters. In 2022/23 we will complete the backlog of service issues and meter testing with the support of DNOs and device manufacturers.

[1] SMETS 1 Device means one of the following: (a) a SMETS1 ESME; (b) a SMETS1 GSME; (c) a SMETS1 CHF; (d) a SMETS1 Gas Proxy Function (GPF); (e) a SMETS1 PPMID; (f) a SMETS1 In Home Display (IHD); and (g) any other device operating on a home area network created by a SMETS1 Communications Hub Function (CHF).

In the coming year, we will also deliver additional customer reports, an innovation workshop and hold a third round of bilateral meetings. We will continue to develop strategic relationships with the DNOs to ensure that we are aligned with their business plans as governed by the RIIO-ED2 regulatory framework for rewarding innovation.

New service, optimisation and innovation

We are collaborating with DNOs to maximise the value which they can obtain from the DCC network, improve their customer experience and increase the effectiveness of industry device testing. For example, during 2021/22 we concluded a project to investigate how we can support DNOs to optimise their service requests for voltage quality and consumption while using the Arqiva network in the CSP North region.

In 2022/23, we will start a process to capture the emerging business requirements of DNOs and review how DCC can deliver functionality in support of these ahead of the DNOs' regulatory business planning. As described in the Energy Market Context section, we anticipate that DCC's network and core capabilities can help facilitate the DNO to Distribution System Operator (DSO) transition.

Engagement Workstream

We will redefine our engagement model with the DNOs to deliver better outcomes for them. We will do this through bilateral meetings and coordination between DCC, DNOs and relevant industry groups. This project will also reinforce strategic alignment between DCC and the DNOs' RIIO-ED2 business plans.

We expect that the DNO Programme will close by the end of March 2023, having achieved its primary objective of addressing historic issues and delivering a consistent and high-quality experience. Ongoing improvements will then be delivered through our Operations function.

The introduction of a "Head of DNOs and Other Users" role in Service Management will ensure that the transition to 'Business as Usual' is actively managed. On an enduring basis, we will provide more streamlined processes to resolve service issues and requests for additional customised reporting. In parallel with this, we also expect affected DNOs to benefit significantly from our commitment to improved performance of the network in the CSP North region.

Enduring Change of Supplier (ECOS)

Drivers and objectives

Ensuring that consumers can change energy supplier securely is one of the primary purposes of the smart metering roll-out. An essential part of this is the replacement of the security certificates on smart devices (primarily meters) that identify the responsible supplier. When the original technical and security architecture for DCC was developed, it was decided to implement a short-term solution, known as Temporary Change of Supplier (TCoS). This was intended to limit the change demanded of energy suppliers during the roll-out of smart meters.

Although TCoS operates successfully at a very high standard of security, it is not fully aligned with the planned Trust Model for smart metering. To ensure full compliance, the plan is to replace TCoS with an Enduring Change of Supplier (ECoS) process.

Programme achievements and milestones

In August 2019, DCC was mandated by BEIS to deliver an ECoS solution. The ECoS Service Provider procurement process was concluded in 2021 with the following results:

- ECoS Application Provider – awarded in April 2021
- ECoS Hosting and Service Management Provider - awarded in October 2021

The original delivery plan for ECoS, published in March 2020, included a formal end-to-end review of the plan and associated milestones following conclusion of ECoS procurement and the onboarding of the service providers. The aim of this review was to ensure that the delivery timetable remained robust and achievable.

Following this review, the Go-Live date for ECoS was moved from June 2022 to June 2023. This extension will allow for the incorporation of learnings from other programmes, minimise the risk of unforeseen impacts and provide more certainty to the industry. It also complements the timing of the Hosting and Service Management Provider delivery plan.

Consultation on the revised plan has been conducted through the Implementation Managers Forum (IMF) and, while some customers supported the changes, we also received feedback that the new timelines will lead to increased cost. We will continue to challenge our service providers to deliver value for money for the industry.

The revised key milestones for the programme are as follows:

Milestone	Date
ECoS Design Phase Completed (achieved)	5-Apr-22
ECoS Build Phase Completed	29-Jul-22
ECoS Testing Phase Start	1-Aug-22
ECoS System Integration Test (SIT) Phase Start	4-Nov-22
User Integration Test (UIT) Phase Commence	15-May-23
ECoS Go-Live	30-Jun-23
TCoS to ECoS Migration Completed	30-Apr-24

Customer Engagement

To make sure that our customers are fully informed of developments and to give them an opportunity to shape aspects of the programme, we are engaging with them through the following channels:

- ECoS 'Summits' for customers and stakeholders
- Monthly updates at the BEIS-led Technical Business Design Group and regular engagement with relevant SEC Sub-Committees
- Twice monthly drop-in sessions on 'Migration & Devices' and 'Design, Build and Test'
- A monthly newsletter updating on progress
- Dedicated content on the DCC website

DCC Public

Technical Refresh Programme

Drivers and objectives

DCC is responsible for ensuring that the smart metering infrastructure remains fit-for-purpose to enable the roll-out of SMETS 2 meters and the migration of SMETS 1 meters.

DCC's Operations function manages any perceived system risks to keep production services operating effectively. The SMETS 1 and 2 solutions were first designed and developed in the early to mid-2010s. Inevitably, they are aging and the risks to operational stability and security have grown. Operating and maintaining the core network while adding new functionality and undertaking proactive essential maintenance will become increasingly challenging as technology evolves.

We have reached a point where we need to make targeted interventions in the infrastructure to ensure that it does not rely on unsupported hardware or software, with potential damaging impact on the security and stability of the DCC network.

We have initiated a Technical Refresh Programme with the objective of maintaining the existing service while minimising any risks to the security or performance of the network as experienced by our customers. This will be achieved through effective scheduling and co-ordination of technical refresh work planned across SEC Maintenance Releases in 2022.

This essential maintenance will exceed the downtime windows set out within the SEC and we are working with SEC Governance to minimise the impact on our customers. At SEC Operations Group our customers requested that we undertake a lessons learned exercise to ensure our plans for downtime are well managed and reflect the impact on our customers. Our findings and how they have been incorporated into our planning will be presented in May.

In response to customer feedback, we have also committed to sharing a Service Outage Strategy for 2022-23 at the June SEC Operations Group, which will contain a full picture of all DCC downtime, including Technical Refresh and Business Continuity and Disaster Recovery related outages. Furthermore, we have committed that we will implement a future strategy that minimises the need for downtime through contractual arrangements under the Network Evolution Programme.

Standardised Customer Analytics Reporting

Drivers and objectives

In last year's Business and Development Plan, we presented our proposal for customer-facing analytics that will enable customers to diagnose performance failings across the DCC ecosystem. Our internal analytics capability identified differences in performance among all service providers and our customers. We have been working with individual customers to address these issues through our Service Management team.

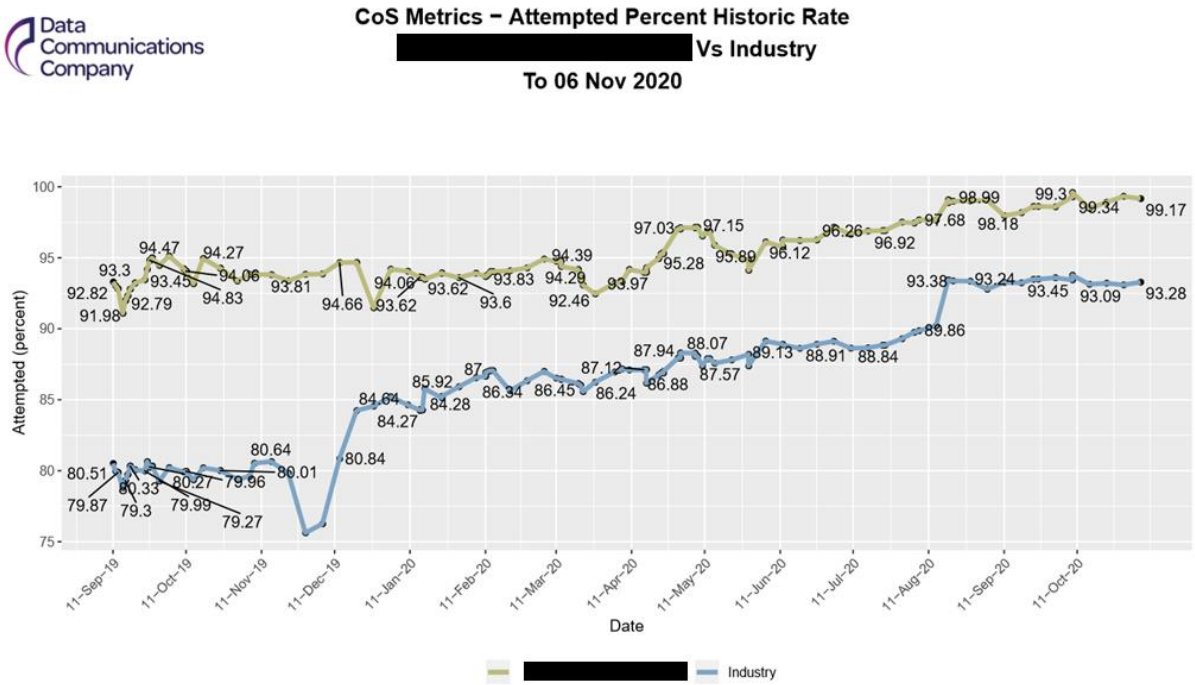
We will develop reporting which will enable customers to:

- Identify their own performance against key customer business processes
- Benchmark their performance against other customers via anonymised league tables
- Diagnose issues within their own estate which are causing poor performance

This will enable customers to create a roadmap of improvements based upon their individual business priorities. We will support customers in the delivery of their improvements through our existing Operations teams, service providers and forums.

An example of the type of reporting to be included within the new packs can be seen below.

Graph 1: Success rate for a specific Service Request Variant (SRV) of an individual SEC party tracked throughout the month against the industry average for that SRV.



Following discussions with customers it was agreed that the appropriate mechanism for developing this reporting would be through a SEC Modification. SEC Modification 176 is currently being refined through industry consultation and it is expected that the reporting will be available by February 2023.

Strategic Priority 2: System Enhancement

To ensure that the DCC network remains fit for purpose, and can respond to change and future demands, by adopting new technologies and seeking innovative ways of working with our service providers which will deliver ongoing improvements and value for money for our customers.

The DCC network and the smart meters connected to it are becoming increasingly central to our customers' core business processes. As they gain experience of this new way of working, they are identifying new requirements and developing new ideas as to how they and their end-customers can benefit from the digitalisation of metering.

In response, we must ensure our network and supporting services develop to meet those future needs. As network usage increases, we will continue to work closely with our customers to make economic and efficient decisions about how we evolve the network.

The Network Evolution Programme will advance our technology platform to ensure its operation at scale for the longer term in an efficient way that delivers value for money to our customers.

We will remain focused on our security infrastructure to prepare for future challenges - such as quantum computing - and to ensure our capabilities remain at Critical National Infrastructure standards.

Network Evolution Programme

Through the Network Evolution Programme (NEP) we will deliver changes to the technology platform and redesign many of our major external service contracts to ensure the network and supporting services keep pace with technological change and are capable of delivery into the 2030s and beyond.

NEP will deploy new processes, systems and technologies to improve the smart metering service, reduce the operating costs of our systems and, above all, secure the continuity of this critical part of Britain's national infrastructure. The primary triggers for NEP are the future obsolescence of the 2G and 3G mobile networks and the expiry of the current Data Service Provider (DSP) contract, as well as evolution of the network to take advantage of lower-cost technology options such as cloud-based services.

By taking advantage of new technology, NEP will deliver connectivity that is flexible and protected, while simplifying operations to meet the needs of our customers' evolving business models with minimum impact and reduced costs. NEP will improve the cost efficiency of the network, lowering the barriers to entry for new suppliers and increasing competition.

The key programmes within NEP are as follows:

- Data Service Provider (DSP) Data Systems – delivery 2024. Scope: design and procurement of a data services platform which is secure and sustainable, capable of rapid and cost-effective change in response to market and customer demand and with a reduced operating cost
- DSP System Integrator (SI) - delivery 2024. Scope: re-procurement of SI services to enable the ongoing integration and delivery of DCC change programmes
- DCC Service Management System – delivery 2023. Scope: re-procurement of an IT Service Management System to support SMETS service delivery
- Communications Hubs & Networks – delivery 2024. Scope: design and procurement of next generation Communications Hubs and Networks (CH&N) utilising technologies with a longevity of at least 15-20 years so that the full benefit of an asset's operational life is realised from the point of installation
- Trusted Service Provider (TSP) / Smart Metering Key Infrastructure (SMKI) – delivery 2025. Scope: secure a tactical and cost-effective extension to the SMKI security service, followed by the strategic design and procurement of an enduring solution
- Test Automation – delivery 2023. Scope: automate testing of SEC releases to achieve faster and lower-cost testing with additional enhancements that will allow DCC to confirm the efficacy of changes

Network Evolution – Data Service Provider Data Systems

Programme drivers

Driver 1 – continuity of service

The contract for the provision of the DSP service currently held by CGI was due to expire in October 2021 and has been extended to October 2024, with an option to extend further to 2025. The DSP Data Systems Programme has been established to design and procure the future DSP solution.

The primary purpose of this programme is to ensure that customers experience continuity of service as we transition from the current provision to the future DSP, with service and performance levels continuing to meet existing standards as a minimum.

Driver 2 – effective change management

Since the initial design and commissioning of the DSP to support SMETS2 data services there have been regular updates to systems and services as needs have changed. These updates range from routine SEC Modifications to more substantial changes, such as extending the DSP solution to support SMETS1 data services.

Evolving customer business models and technology continue to drive changes across DCC's systems and services. Work is currently underway on significant upgrades to support the ECoS and Faster Switching programmes, as well as an ongoing portfolio of change driven by the SEC Modifications process. Within the terms of the current contracts there have also been significant advances in technology which, if adopted, could contribute to a system that is more flexible in supporting future change.

During the lifetime of the new DSP contract, technology and business practices will continue to evolve, inducing a pipeline of change as the industry adapts to, for example, the increased use of Distributed Energy Resources (DERs) and EV charging. The DSP and other systems must be capable of adapting to support the implementation of these new products and services.

Our customers have told us that the cost and pace of change, particularly for the DSP, is a source of dissatisfaction. Procuring a new DSP solution provides an opportunity to introduce more effective change processes, and to improve testing and implementation approaches.

Driver 3 – value for money

When contracting for new services, DCC has a licence obligation to deliver the best value for money for our customers. The new DSP solution should ensure this for normal operations and when undertaking change. It also provides the opportunity to adopt new and improved technologies, streamline change processes and tighten contractual controls.

Programme outcomes

The DSP Data Systems Programme will ensure continuity of service beyond the lifetime of the existing service. The use of more flexible technology will lower the cost of operation for our customers and enable future re-use of the network for new services.

In establishing the programme, we will achieve the following outcomes:

- Continuity of services as set out in the SEC, with minimal impact on DCC's customers and no detrimental impact to consumers
- Improvement to core DSP services, a lower cost and improved speed of change, and ease of system enhancements to meet future development needs
- Value for money in delivery of DSP services
- Re-engineered systems to ensure that the future security model is maintained
- Reduced Intellectual Property Rights (IPR) in core systems and the adoption of open system standards that enhance system flexibility and capability

The programme is currently at the scoping phase, to define the future business, technology and security landscapes, opportunities and challenges over the long term. As part of this, we are consulting with the industry on the future services to be delivered. The new DSP will be procured to be implemented by October 2024. However, we have an option to extend the current contract until October 2025, should it be necessary.

We are considering a delivery approach that allows for incremental delivery of capability, i.e. some standalone or simpler procurements could commence early while more complex and bespoke components are still being elaborated.

As directed by BEIS, we are following the HM Treasury Green Book Business Case approach for the programme. This requires DCC to obtain confirmation to proceed from BEIS ahead of certain procurements that cover core service provision, ensuring that the new service will meet customers' business needs and provide value for money.

BEIS will provide confirmation to proceed in relation to the following milestones in the plan:

- Strategic Outline Business Case (SOBC), ahead of DCC engaging the market
- Outline Business Case, ahead of DCC issuing an Invitation to Tender (ITT)
- Full Business Case, ahead of DCC signing contracts and commencing development
- Go-live of the new service

In the development of the SOBC, we have consulted widely with our customers and stakeholders through established forums, including the Quarterly Finance Forum, SEC Panel and Sub-Committees, as well as undertaking wider engagement through bilateral meetings with customers, industry-wide workshops and as part of the consultation around the 2021 Business and Development Plan.

We are currently finalising the SOBC for submission to BEIS. This will provide the justification for change and establish the key business needs.

Network Evolution - DSP System Integrator (SI)

Programme drivers and outcomes

As with the DSP Data Systems contract, the DSP SI contract with CGI is due to expire in October 2024.

Given the anticipated growth of the DCC ecosystem over the next 15 years, we require an enhanced SI service for the new DSP and end-to-end system integration. It will manage operational responsibilities, such as market entry testing, as well as delivering change programmes and integrating new functionality.

The objective of this programme is to engage with the market to find a service provider who can deliver these SI services to the level of quality required by DCC for the benefit of our customers and stakeholders.

The scope of the new SI will be:

- To integrate the new DSP architecture within the wider ecosystem of DCC service providers. This will involve integration as part of transition of the new DSP Data Systems Programme, up to Go-Live. SI integration capabilities are expected to be required in 2023/24, ahead of DSP Data Systems Go-Live
- To manage enduring DCC responsibilities such as maintenance releases, analysis of production incidents, technical refreshes, Business Continuity and Disaster Recovery (BCDR), and the testing services defined in the SEC
- To provide market entry testing for new DCC Users and SMETS1 related testing such as Pending Product Combination Tests (PPCT), Migration Device and User System Testing (MDUST) and Device and User System Testing (DUST)

Once the programme and associated plan has been baselined it will be shared with customers and stakeholders for consultation. It is expected that DCC will be required to follow the HM Treasury Green Book Business Case approach which will be factored into our plans.

We have begun engagement with the relevant SEC Committees to identify business needs for the new SI and we will continue to engage as the programme progresses.

Network Evolution – DCC Service Management System (DSMS)

Programme drivers and outcomes

CGI provides the IT Service Management System (ITSM) for DCC, based on the Remedy toolset, with the contract due to expire in October 2024.

This programme will provide a value for money ITSM by October 2023 to ensure continuity of services. The objective is to simplify the ITSM landscape and make use of new SEC compliance technology which will enable efficient change and automation to reduce operational issues. This will improve the overall customer service experience of DCC's ITSM and service management processes more generally.

In procuring a new service management system, we will seek the following improvements:

- **Best of breed –** we will aim to procure an 'out-of-the-box' solution to enable cheaper and more rapid updates than the current highly customised ITSM
- **Automation -** the current platform has limited automation, requiring manual business processes, preventing DCC from delivering changes when required. We have an opportunity to select a platform that enables automation
- **ITSM user portal** – the Self-Service Interface (SSI) provides a user portal for the current platform. However, changes are slow and inflexible. We will evaluate whether a platform with a more adaptive and flexible portal could be used

Once the programme and associated plan has been baselined it will be shared with customers and stakeholders for consultation. It is expected that DCC will be required to follow the HM Treasury Green Book Business Case approach for the programme, which will be factored into our plans.

As with the SI procurement, we have begun engagement with relevant SEC committees to identify business needs for the DSMS Programme and will continue to engage with them as the programme proceeds.

Network Evolution – Communications Hubs & Networks (CH&N)

Programme drivers

The current Customer Service Provider 2G and 3G Wide Area Network (CSP 2/3G WAN) contract for the Central and South region expires in 2028 with an option to extend until 2033. Furthermore, the UK Government has notified its intention to retire all 2G WAN services in the UK by 2033.

In response to these events, the Communications Hubs & Networks Programme is designing and procuring a new Long-Term Evolution (LTE) 4G connected communications hub service that will provide secure, flexible connectivity and replace current 2G and 3G services.

Programme outcomes

The programme will ensure that DCC continues to meet the needs of our customers in the medium and long term, using a flexible commercial model that supports effective change and drives value for money for our customers. The CH&N Programme aims to deliver the following outcomes:

- Ongoing secure connectivity, capacity and longevity of devices as cellular technology advances
- Protection of investments already made and promotion of future value for money for customers
- Flexibility to allow ongoing change to support industry evolution

SMETS1 and SMETS2 assets have a 15-year economic life, so the earlier an enduring technology can be made available, the more we can ensure that these assets fulfil their life span. We anticipate delivery of the new communications hubs in Q4 2024.

DCC currently delivers smart metering services over 2G and 3G to enable both SMETS1 and SMETS2 services. Each has its own arrangements for CSPs, covering the provision of network services and the communications hubs. Maintaining smart functionality over the longer term will require the introduction of new communications hubs covering both SMETS1 and SMETS2 meters which use the newer 4G network. The CH&N Programme is in final negotiations with vendors for a new solution and we expect to sign contracts by June 2022.

An efficient transition to 4G communications hubs while maintaining a smooth and continuous roll-out is important to the industry. It will also be desirable to minimise the risk of a surplus of 3G communications hubs and to avoid complexity for installers. These considerations will require input from across the industry and we propose to engage with stakeholders to develop guidelines, objectives and critical milestones in a new Communications Hub Transition Roadmap.

As directed by BEIS we have followed the HM Treasury Green Book Business Case approach for this programme. DCC is required to obtain confirmation to proceed from BEIS ahead of certain procurements that cover core service provision, ensuring that the new service will meet customers' business needs and offer value for money. A Full Business Case was submitted to BEIS in April 2022 and we await its confirmation to proceed.

Network Evolution – Trusted Service Provider (Smart Metering Key Infrastructure)

Programme drivers and outcomes

The Smart Metering Key Infrastructure (SMKI) platform provided by BT, also known as Trusted Service Provider (TSP), is reaching the end of life. A tactical solution will be implemented by September 2022, ensuring there is continuity of service until the platform is replaced.

An enduring TSP Programme has been set up to re-procure all TSP services by April 2025. This will involve full design and re-procurement, and the mapping out of requirements began in early 2022. The new solution will be delivered with minimal impacts to our customers and DCC's live services and programmes.

In establishing the programme, DCC will mitigate the end-of-life risk but will also develop an enduring Public Key Infrastructure platform that will provide the required security, architecture and infrastructure to support both core services and future enhanced DCC capabilities. The new services will be designed to respond to emerging security needs over a 10 to 15-year time horizon.

Network Evolution – Test Automation Framework

Programme drivers and outcomes

The Test Automation Framework programme will support DCC's commitment to increase the speed of Regression and User Integration Testing and so deliver cost savings, while increasing test scope and device model combination coverage.

This will be achieved through utilising enhanced, automated testing capabilities, which will provide greater value for money when testing SEC releases, maintenance releases and firmware releases. We received SEC Test Advisory Group (TAG) endorsement of our approach in September 2021.

A full business case is planned for submission to BEIS in May 2022.

Security

DCC Security regularly assesses our maturity against industry standards and implements improvements across internal IT and security operations.

Significant advances have been made throughout 2021/22 with a focus on becoming more resilient and efficient. We are building on the following four pillars during the current year:

- Information management
- People
- Supply chain visibility
- Security Operations Centre expansion and accreditation

Our threat-led strategy sits above these four pillars and guides our activity as a function.

Threat-Led strategy

Cyber security risk management practices are largely driven by compliance requirements, which force organisations to focus on security controls and vulnerabilities. But this approach can hinder them in combating the most critical element in risk management - threats, which are ever changing, and increasing in severity and complexity.

Placing threats at the forefront of strategic, tactical and operational practices helps us to integrate functions across IT and Security. Architects, engineers and analysts follow a common methodology that incorporates threat analysis and intelligence across systems development and operational processes. This ensures that security controls are implemented, evaluated and adjusted over time to address the highest impact threats and attack vectors.

This threat-led approach drives improved resource allocation and spending and produces agile and resilient cyber security practices.

We are applying this strategy to new and re-contracted services, such as switching and network evolution, as they go-live. We will be expanding our external engagement during 2022/23 to socialise our achievements and ensure that security best practice is communicated to wider DCC stakeholders.

Information management

The initial phase of DCC's Information Management Policy renewal is complete and tooling is being rolled out to enforce more stringent classification of all data. In 2022/23 we will see the deployment of a suite of controls to monitor and control data handling throughout our business.

We also plan to use new and enhanced DCC Enterprise IT tooling to aid improvements in information management. The new tools will provide the controls referred to above as well as better anomaly detection and monitoring capabilities. This also extends to the DCC Amazon Web Services (AWS) hosting estate.

Our security exercises held during 2021/22 identified some areas for improvement in our external facing data store which we are now implementing.

People

Communicating with our people and ensuring they follow security guidance is key to our security capability. As our people return to offices, we will be reminding them how to work securely in the

workplace and at home. We will engage with them to ensure that they understand the role they have in keeping DCC secure.

Within Security we are focusing on career development, introducing graduate and entry-level pipelines and roles, with career paths managed through to senior levels to minimise attrition and ensure fulfilled staff in relevant roles.

Supply chain visibility

During 2022/23, we will assess how we can use the large amounts of asset, user and compliance information we hold to map out views of our supply chain so that we can identify potential risks before they become issues. This will include combining data from the supply chain with DCC Security Operations data to create live views of where suppliers may be under threat of attack.

Security Operations Centre

External assessments of key service providers have shown that the quality of their security monitoring is lower than we can now achieve within DCC. This, and the desirability of a single perspective on security events, has refocused our efforts on hosting the Security Operations Centre (SOC) ourselves for the whole DCC network, including our service providers.

This transformation will take time, requiring commercial discussions with our service providers and the provision of DCC's security monitoring solution to a number of stakeholders. During 2022/23, we will make significant progress in moving to a single perspective for security monitoring. The principle benefits of this change will be:

- Higher quality monitoring outputs
- Cost savings and improved value for money as we reduce duplication of security monitoring

The SOC is currently preparing for CREST Accreditation[1] to demonstrate our excellence in this area.

Smart Energy Code (SEC) and Retail Energy Code (REC) Releases

DCC operates under two industry codes - the Smart Energy Code (SEC) and Retail Energy Code (REC) - governing the end-to-end management of smart metering and the operation of the retail market respectively.

Our In-Life Change (ILC) team focuses on delivering high-volume, low-cost change, in a repeatable, controllable and scalable way. Our experience of delivering SMETS2 SEC change is now being leveraged more widely.

The objective of the ILC team is to deliver value for money technical system changes as requested and approved by SEC and REC parties. Our approach focuses on learning the lessons from previous releases, allowing these parties to realise the full benefits of their respective changes.

SEC Modifications are industry-wide requests for changes to our services and we are required to deliver two SEC System Releases each year in June and November. Following Go-Live of the Central Switching Service, relevant REC Change Proposals will be delivered twice a year through REC Releases in June and November.

[1] https://www.crest-approved.org/

SEC Releases delivered in 2021

The June 2021 SEC Release was cancelled as it was decided that the proposed changes could be more economically and efficiently delivered in other SEC System Releases. The November 2021 SEC Release was delivered on time and under budget.

Forward look

The ILC team is preparing to broaden its scope of activity to include SMETS1 enduring technical enhancements, enduring Great Britain Companion Specification (GBCS) change and REC Releases.

In the coming year, the team will take responsibility for managing REC Change Proposals and Releases. A key consideration will be to manage change and releases in a way that respects the requirements of both the SEC and REC. To help ensure this, the ILC team is supporting the Cross Code Steering Group, an industry governance body that coordinates change and releases when they impact on more than one energy code.

The ILC team is also developing an enduring delivery framework for future GBCS changes, with the objective of maintaining a cadence aligned to industry requirements.

Preparations for the June and November 2022 SEC releases are on track. Planning for an appropriate release window for Market-Wide Half Hourly Settlement (MHHS) is underway, as this will be delivered through a SEC Modification.

Improving processes and governance

There are a number of improvements planned which will increase the pace of change delivery and provide cost efficiencies, for example, the introduction of the Test Automation Framework (for more information see Network Evolution – Test Automation Framework).

In 2021 we raised a SEC Modification to implement recommendations to improve the SEC Section D Modification Process, following an end-to-end review of the framework led by the Smart Energy Code Administrator and Secretariat (SECAS). This will improve the efficiency and transparency of the process, as well as aligning it to match current working practices. This modification is currently in the "Refinement" stage, and we will work closely with SECAS in the coming year to support its implementation.

Through our SEC Releases we have learned the benefits of engaging early in solution design with our contracted service providers. With the SEC Modification required for the MHHS Programme we involved our service providers at an early stage, allowing us to resolve emerging issues and ensure that we were providing technically accurate and value for money solutions (for more information see Market-Wide Half-Hourly Settlement). We will apply the same successful collaboration approach we have used on the MHHS solution design to future SEC and REC Releases.

Strategic Priority 3: Mandated Programmes

To successfully deliver the programmes over and above smart metering that are mandated by the Government or the regulator in a cost-efficient and transparent way to enable the transformation of the energy system for wider customer and social benefit.

DCC has been selected by the Government and Ofgem to deliver several key changes relating to the reform of the retail energy market.

We were chosen by Ofgem to lead the Faster More Reliable Switching Programme and, when the new service goes live, we will lead its operation. We are also a major contributor to the Market-Wide Half-Hourly Settlement Programme, which is key to facilitating innovation in the retail market and the delivery of domestic demand-side response.

In addition, we are ready to respond to any requests from BEIS and Ofgem about future applications of DCC capabilities to deliver further policy objectives within the energy sector.

Reforming the Retail Energy Market

Faster and more reliable switching

The delivery of faster, more reliable switching is a significant milestone in the transformation of the retail energy market. It will increase competition and provide a foundation for innovation leading to improved consumer value, experience and engagement with the market.

As Ofgem's key delivery partner, we have built and will operate the Central Switching Service (CSS), which will provide the capability for energy consumers to switch energy supplier on a next-working day basis. Through the Switching Programme we have managed the consolidation of 27 existing and new systems and the integration of around 200 licensed parties into the CSS as a single core system.

The CSS is due to go-live in July 2022 and our focus over the past year has increasingly been on the transition to live operations. There will be a period of "Hypercare" with DCC Operations and service providers on heightened readiness to respond proactively to any early in-life issues. Once Ofgem is content that the new systems and processes are stable, the Switching Programme will be formally closed. Our priority will then be to provide a robust and continually improving service in the early years of the live operation.

Alongside the introduction of the CSS, DCC's enduring requirements for switching will also be activated as part of new regulatory obligations contained in the Retail Energy Code version 3. The formal governance of switching will move from Ofgem to REC-led governance, managed and overseen by the Retail Energy Code Company (RECCo) and the REC Code Manager.

Operational readiness and service Transition

The introduction of the new switching service will add significantly to the volume and complexity of work undertaken by the DCC Operations function.

A key part of our preparedness for Go-Live is the enhancement of our Target Operating Model (ToM) to support the new switching service and meet our regulatory obligations contained in REC v3. The ToM has been designed to allow the new switching service to benefit from the knowledge, skills and experiences that DCC Operations has gained over recent years, while providing a logical separation between DCC's switching and smart metering services.

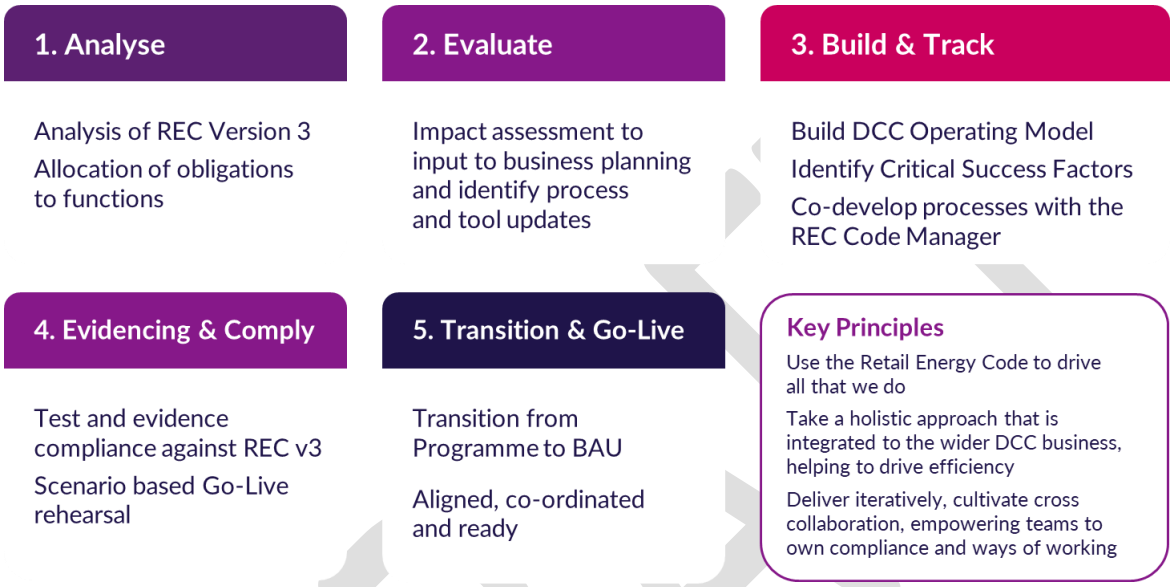
Activities for the mobilisation of the ToM are well underway, supported by DCC's Service Introduction & Acceptance Team, which has managed the transition of all new or enhanced services into DCC Operations since 2018.

In addition to its core operational functions, DCC Operations' Hypercare team will be supporting early live service operations, ensuring a complete focus and attention on the proactive identification and resolution of any issues. This team will be supported by service provider subject matter experts. The Hypercare team will support the service and operational teams until it is satisfied that the new service is stable and delivering the expected outcomes.

Switching enterprise transition and REC compliance

To ensure that DCC is prepared for Switching Go-Live, we established a Switching Enterprise Transition (SET) Programme. This is an internal transformation programme requiring those functions impacted by new REC v3 regulatory obligations to devise and implement necessary changes to the organisation, processes and tools needed to meet the associated REC requirements.

The SET Programme is co-ordinating compliance with the REC requirements and the implementation of associated actions ahead of the service going live in July 2022. The five steps below describe the model we are using to ensure readiness for switching and REC v3.



Customers shaping our enduring approach

We are preparing a proposal document to explain DCC's enduring operation of switching (and wider compliance with REC). We will consult with customers on this in Autumn 2022. We are also developing a framework for future customer engagement.

Address data

The quality of address data for consumers is critical to the operation of the switching process. An industry recognised Retail Energy Location (REL) Address is to be introduced to improve consumers' confidence and their experience of switching.

Working with our service provider, Landmark, and the industry we have made significant progress in automatically matching the industry's address data to a "gold standard" address database (provided by Ordnance Survey). Ofgem identified a 94% match rate to the address database as the "Do No Harm" level which would be needed to avoid any adverse impacts to switching. As of April 2022, we have achieved a 95.4% match rate and will be aiming to continually improve on this.

We are working with DNOs and gas transporter companies as source data providers to improve overall data quality by ensuring that meter points are accurately matched to premises' addresses. This will save consumers time and inconvenience when switching, as well as reducing costs for suppliers. We have a REC requirement to publish a document outlining our approach to continual improvement beyond April 2023. Our approach to this will be set out shortly after Go-Live.

Technology roadmap

We will ensure that the design of the switching system remains fit for purpose throughout its life. To that end, we have commissioned analysis of the changes and innovations likely to affect switching in future years. This work influenced our choice of the solution we procured from Landmark. From day one, it will have the functionality to handle any large-scale increases in switching volumes, ensuring that the system can remain agile and meet the needs of our customers for the foreseeable future.

Market-Wide Half-Hourly Settlement (MHHS)

Programme drivers and objectives

Electricity settlements and trading work on a half-hourly basis. However, domestic meter points are settled on a non-half hourly basis. MHHS will mandate energy suppliers to settle all customers with capable meters every 30 minutes. This opportunity has only been made possible by the roll-out of smart meters which can capture half-hourly data and transmit it back to the supplier.

Through MHHS, energy suppliers will be exposed to the exact half-hourly costs of customer consumption patterns, rather than this being estimated, as it is today. This will encourage electricity suppliers to offer time-of-use tariffs, which in turn will incentivise customers to shift their consumption to times when energy is plentiful and cheap. It will help to increase competition for the benefit of consumers and support the Government's ambitions for decarbonisation.

Programme governance and DCC's role

The industry changes for MHHS centre on the Balancing and Settlement Code (BSC), although other electricity codes and agreements are affected, including the Smart Energy Code (SEC) and Retail Energy Code (REC), to both of which DCC is a party.

We have worked closely with Ofgem and our service provider Elexon to implement the required MHHS changes to the SEC and to DCC Systems through SEC modification MP162. This modification is progressing through SEC governance and is on track to be implemented in line with the industry programme. The changes include accommodating the additional data needed for settlements (over 17,000 half-hourly readings per year per meter) and introducing a new user to the SEC who can retrieve this data on behalf of electricity suppliers.

DCC has been active as an MHHS participant within the programme decision and working groups during 2021 and this will continue throughout 2022/23. This includes supporting programme level decision making, agreement of new and revised industry processes under MHHS and the subsequent changes needed to relevant industry codes and agreements.

Programme milestones

DCC and SECAS are working with industry participants and Ofgem to approve SEC modification MP162 in mid-2022, and for DCC to implement the required changes by February 2024 when the modification will go-live in the SEC. This supports the wider programme timings, with migration of consumers to half-hourly settlements due to start in 2024 and complete in October 2025.

Strategic Priority 4: Re-Use

To identify and promote ways to re-use the DCC secure network with the objective of reducing charges for our customers, enabling the delivery of social good and supporting the Net Zero carbon objective.

The DCC network provides a secure, GB-wide messaging platform that has been built and paid for by all consumers through their energy bills. It is complemented by the Central Switching Service, including its unique features such as the Retail Energy Location (REL) Address database.

Both assets are backed by the DCC organisation – a business capable of delivering complex technology-enabled change programmes and then operating them for the benefit of our customers and the wider energy system.

This combination of network and system capabilities, run by an expert organisation providing programme delivery and in-life operations, can be uniquely useful to the Government and the industry in helping to transform the energy system.

In considering how DCC might extend its services, we have divided our approach into four specific growth areas:

- **Mandated growth** - Working with the Government and Ofgem to implement their policy objectives either through new mandates for additional uses of the smart metering infrastructure or through new technology-enabled change programmes. In time, new applications leveraging the capabilities of the CSS might also be considered
- **Customer-led system enhancements** – Extending existing core capabilities, such as the DCC test labs, and building new development tools to enable our existing energy customers to deliver their smart metering obligations more cost-effectively or create innovative products and propositions for their consumers
- **Elective services** - Redesigning the existing Elective Communications Services (ECS) process, defined in the licence and SEC, to create an effective mechanism through which we can deliver bespoke capability or enhancements for specific customers on a bilateral and commercial basis
- **Non-mandated growth** - Developing additional products to demonstrate the capability of the DCC platform, where the opportunity does not arise through elective services, and with emphasis on the requirements of other users and non-energy settings. Activity in this area is expected to be very limited during the current licence period

Mandated Growth

Working with our customers and partners, DCC has delivered one of the most complex examples of secure digital infrastructure in the world. This infrastructure is operational and has already been paid for by consumers.

The Government's initial vision of a secure, nationwide smart metering network included the potential for its wider use. Given the sums invested, it is prudent to seek to use its core capabilities for wider public benefit. We are therefore exploring several opportunities in which the end-to-end system and its features might be used to facilitate the delivery of government policy objectives.

Since the last Business and Development Plan was published, the Market-Wide Half-Hourly Settlement Programme has been initiated and we are now working on it with Ofgem, Elexon and the wider industry (see Market-Wide Half-Hourly Settlement section).

There are several other potential opportunities which are in various stages of discussion with the Government and/or Ofgem. In each case, there is uncertainty about whether they will go forward and if so when and whether DCC will play a role. Current discussions are listed in the table below:

Activity	Summary	Status
Electric vehicle (EV) charging	Exploring with BEIS and The Office for Zero Emission Vehicles (OZEV) the potential for the smart metering network to provide a flexible EV smart charging system, focused on home and workplace charging, incorporating high levels of cybersecurity and proportional load control capability	BEIS to publish a consultation document in 2022 which will give an indication of the role DCC might play
BEIS/Ofgem policy priority areas: Fuel poverty and vulnerability	We are participating in the Modernising Energy Data Applications (MEDApps) competition, as part of a consortium, to assess how smart meter system data at an aggregated level, when combined with other data sets, can help to identify geographic areas in or at a risk of fuel poverty	MEDApps in pilot phase
	DCC is also working on a similar project to MEDApps, known as 'Social Connect', led by a DNO.	Social Connect - proof of concept
	Discussions have been held with Ofgem about DCC assisting in identifying information about self-disconnection by consumers	Subject to discussion
BEIS/Ofgem policy priority areas: Energy efficiency	BEIS has sponsored the Smart Meter Enabled Thermal Efficiency Rating (SMETER) project – exploring data provision and potential connection of temperature and humidity sensors to the Home Area Network to enhance measurement of energy efficiency in the home	Evaluating how DCC might respond to the outcome of this project either through supporting further pilots and/or incorporating requirements within our technology strategy
BEIS/Ofgem policy priority areas: Flexibility Innovation Programme	Considering the role which DCC might play in two initiatives as part of the Net Zero Innovation Portfolio funding being promoted by BEIS The two initiatives relate to: • Interoperable demand-side response • Automatic asset registration	Evaluating the extent to which DCC participates in these competitive funding opportunities, either through facilitating bidders or through active involvement in a bidding consortium

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Central Switching Service: 'Opt-in/Opt-out' switching delivery body	BEIS has been considering the provision of an automated switching service so that consumers could either opt-in to deals presented to them, or would be switched automatically unless they chose to opt-out A central delivery body would be required to operate these services	Further development of policy is currently on hold due to the turbulence in the retail energy market
Data services	Around 800 million messages are sent through the smart metering system every month. The 'system data' generated by those data flows could provide a rich source of insight to help deliver public benefit and solve societal challenges, accelerating the transition to Net Zero We will continue to explore how we can help organisations innovate with this dataset, providing maximum access robustly and securely, and at the lowest possible cost For further details, please see our "Data for Good" White Paper.	Ongoing development of strategy during 2022/23, working in partnership with the Open Data Institute, including the exploration of potential use cases, addressing barriers to access, and regulatory/legal questions etc.

Customer-led System Enhancements

One of our key objectives is to help our customers improve the efficiency of their systems and processes, and to develop new products and services for the end consumer.

Our customers have told us that they need a more agile development capability, alongside better designed and more cost-effective mechanisms to support change, new products and propositions. We have been able to help them by providing them with tools such as the smart meter Interoperability Checker and DCC Boxed[1], as well as through our extensive test lab facilities.

DCC Boxed has been developed with input from our customers. The product was launched in April 2022 and is designed to emulate the smart metering network. It offers a suite of testing tools that enable authorised users to better understand, enhance or develop their own solutions.

The primary role of our test labs is to support our customers' core business testing needs. However, they can also be used to demonstrate additional functionality within the smart metering system, such as load control, or to facilitate innovation using new devices and applications. We would welcome the opportunity to work with our customers on enhancing these services so that they can derive maximum value from them.

We intend to run regular engagement activities with customers to identify opportunities for improving the infrastructure and providing complementary services. As part of these discussions, customers can indicate whether they would prefer any new service to be provided on a 'pay-for-use' basis, or whether it should be delivered through a code modification and therefore become available to all customers as part of DCC's core services.

[1] DCC Boxed | Smart DCC

Elective services

The Elective Communications Services process (ECS) as defined in the SEC was intended to provide a mechanism through which customers could commission bespoke functionality in the form of new service requests. In exchange for paying for its development, they would obtain exclusive use of this functionality for a period before it was made available to the wider industry. Their initial investment would be reimbursed as other customers came on board.

While several customers have made enquiries about ECS, none has opted to take it forward. Discussions with customers about the reasons for this have raised several concerns, including that fact that only service requests can be commissioned; the limited period of exclusivity; and the time and cost associated with delivering changes. This suggests that the ECS process needs considerable reform before it becomes an attractive option. We have been looking at this and discussing it with some customers.

Our approach to creating a fit-for-purpose ECS process is made up of two phases:

- Through pilot projects and working with customers, we will build a clear set of customer requirements for a new ECS process together with an understanding of the kinds of development tools and modifications to the DCC platform which will be required to enable an appropriate bespoke development capability
- Subject to industry governance, we will implement these capabilities to create an environment in which customers are able to innovate on the DCC platform using a self-service model as far as possible

The re-procurement of the Data Service Provider (DSP) role as part of the Network Evolution Programme will deliver a more flexible technology platform designed to support rapid and low-cost change. This will support a redesigned ECS process and offers a better prospect of delivering bespoke change to individual customers or even allowing them to self-serve changes as part of their own innovation. Our over-arching ambition is to enable customers to access the data and communications capability of the DCC platform rapidly and cost-effectively.

By working with our customers in a collaborative manner and using pilot projects to prove the new processes and tools, we hope that regulatory change (which will ultimately be required), together with models for funding and charging, can be delivered with the support of customers and stakeholders.

Non-mandated growth

In the longer term, we also anticipate delivering our licence objective of cost reduction for customers by generating new revenues from 'Value Added Services'. That means enabling non-energy sector customers to develop new products and services by using the capabilities of the smart metering system.

Any such activity must be without detriment to our core services and to the benefit of, and with support from, our existing customers and stakeholders. We acknowledge that there is currently a limited appetite for DCC to diversify into new areas. Accordingly, we do not anticipate any significant activity in areas of non-mandated growth prior to licence renewal in 2025, albeit that we do not exclude it, should a suitable opportunity arise which does not put the delivery of our core regulated services at risk.

We will explore alternative funding models for the development of these activities and hope to finalise the regulatory framework and approvals process for Value Added Services through working with Ofgem.

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We envisage that this will be covered as part of Ofgem's work to design a new licence for the period from 2025-2040.

Where possible, we will investigate the potential for charging new customers, who did not contribute to the development costs of the DCC network, to use new system enhancements or products developed to support government-mandated growth activities. Our aim in doing so will be to offset development costs and drive savings for our current customer base.

Strategic Priority 5: Culture and Capability

To ensure that DCC remains fit for purpose and delivers value for money, with an agile and flexible workforce that can support the needs of our customers.

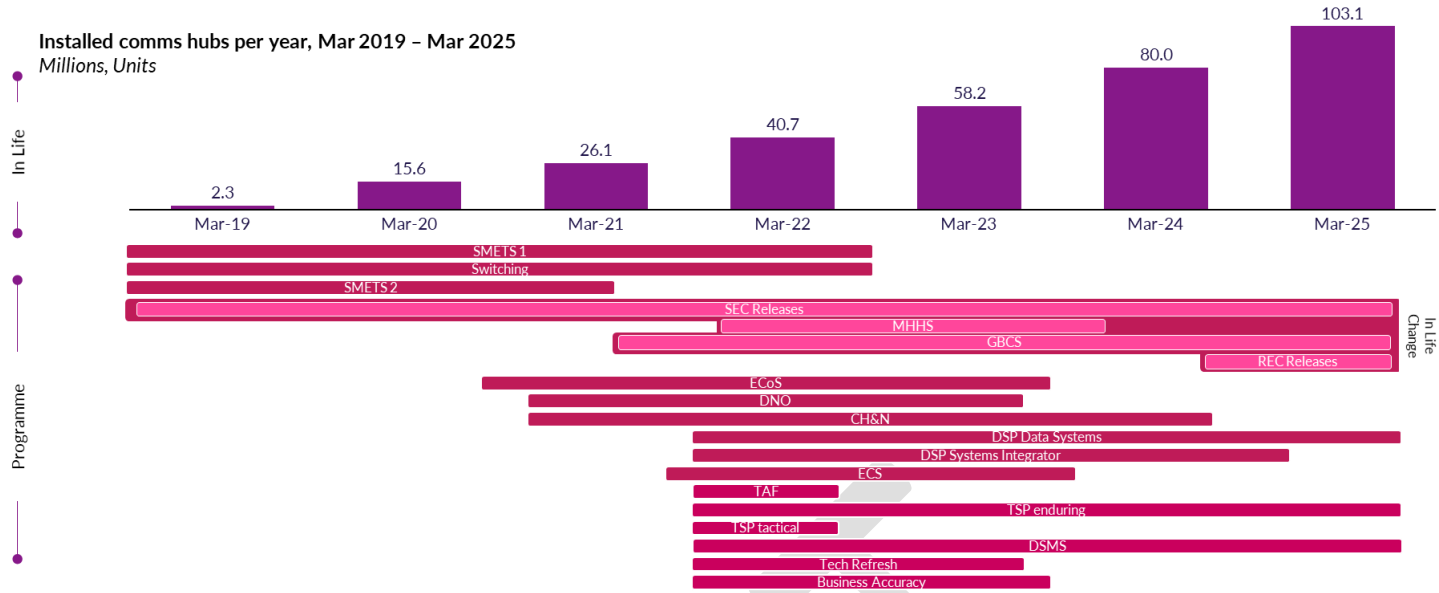
DCC's role has grown significantly since it was established in September 2013. We have not only matured in terms of our original mandated activities, but our scope has also widened and diversified to include new mandated programmes at various stages of development. In the coming years, our focus will shift towards the in-life operation and maintenance of the smart metering infrastructure - and other programmes which are transitioning from build to operation - as well as the re-use of the network for the public good.

We must remain fit for purpose as we grow, and the needs of our customers evolve. With this in mind, we are planning projects to improve the efficiency and effectiveness of our organisational capabilities and workforce. This will enable us to continually improve our service to our customers.

Business Accuracy Programme

Programme drivers and outcomes

The scope of DCC's work has grown significantly over the past nine years, as highlighted in this document. The volume of activity we are now being asked to undertake by the Government and the industry is unparalleled in our history. We have quadrupled the amount of programme activity and we are managing a growing installed smart meter base. As a result, it has become more important than ever to have a core set of processes, systems and data which can support this level of complexity and provide integrated, reliable business plans and performance reports.



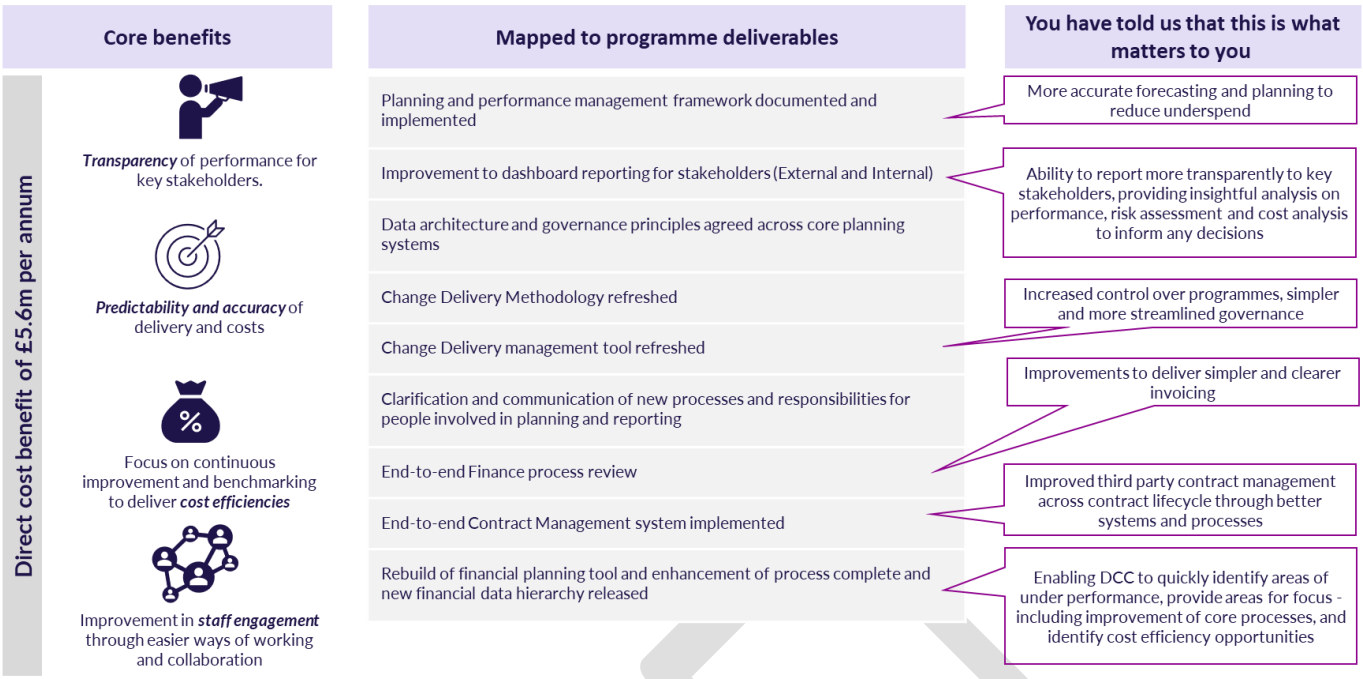
We have engaged with our customers on the need for enhancements, and discussed our proposed way forward with them, along with the expected benefits of greater cost efficiency in the way we plan and spend their money. Our programme deliverables have been matched to customer requirements to ensure they will provide value for money. We will continue to engage with customers to ensure that programme benefits are aligned to their expectations.

The Business Accuracy Programme will deliver the enhancements we need to create a business planning and performance management framework providing the following core benefits:

- Improved transparency of reporting. This will improve our ability to respond to customer information needs while providing an improved framework for reporting and monitoring business performance
- Accuracy of delivery through better ability to provide resource at the right time, quality and cost
- Performance metrics enabling us to focus on continuous improvement and build benchmarks that can identify efficiency opportunities and improve delivery of value for money for our customers
- Increased staff engagement. This will allow teams to access data more effectively and efficiently, which will improve collaboration and the ability to manage workloads proactively

To achieve this the programme we will deliver the following core outcomes:

- **Process and governance** - Build and implement the "DCC Lock" process, a business planning and performance management framework that will provide a consistent methodology for approving and co-ordinating business activities and understanding and managing the risks associated with delivering them
- **Systems and data** - Enhancing the current systems landscape and introducing new data governance principles to deliver reliable, timely and consistent datasets that enable accurate business planning and performance management
- **Reporting** – Ensuring an accurate, reliable and timely reporting capability, which will allow the business to track performance at all levels and provide a consistent set of reports for internal and external stakeholders
- **People** - Ensuring that staff across DCC understand their roles in the process and have the skills to operate it on an ongoing basis



Strategic workforce planning

The dynamics of the job market have changed significantly in the last 18 months and there is ever stronger competition for the best talent. With 1.3 million vacancies alone in the UK, the competition for talent has placed increasing pressure on organisations to adapt their recruitment practices and employee value proposition. This provides a major challenge for businesses, such as DCC, which are heavily dependent on the quality of their people and the skills that they possess. Clearly it will be increasingly difficult to fulfil our current and future resourcing needs in a quick and cost-efficient way through recruitment alone.

To address this, we are working on the development of a strategic workforce strategy which will ensure that we have access to the right resource at the right time, both to address short-term needs and also looking forward over the five-year timescale of this plan.

There are several different considerations in developing this strategy, including:

- Use of different resourcing channels and enhancement of our employer brand
- Improved selection processes to ensure that we are recruiting high quality people who are the right cultural fit for DCC
- Developing talent internally and offering enhanced learning for our people
- Ensuring our rewards and benefits remain efficient yet competitive
- Reducing attrition through initiatives such as improved recognition, wellbeing support and flexible working opportunities

Through the adoption of this strategy we aim to deliver the following key outcomes:

- Improved employee retention leading to reduced recruitment costs and better knowledge retention within the business
- Improved customer experience through better qualified, more engaged DCC staff
- Greater flexibility and the ability to respond to changing business needs
- More predictable programme delivery through improved availability of necessary skills

The current ambition is to develop a detailed workforce strategy during 2022. This will allow appropriate initiatives to be included in the business planning for 2023/24 and beyond. The strategy would then be subject to a refresh every two years to ensure that it still reflects the dynamics of the marketplace and the needs of DCC and our customers.

Culture transformation

Like many companies emerging from two years of remote working during the COVID-19 pandemic, DCC has seen a rise in employee attrition and a decline in its employee engagement scores. We are committed to addressing these issues, and we have introduced regular employee engagement and listening sessions this year to understand their feelings and act where needed.

A culture transformation programme is now underway to respond to employee feedback and, with the help of our people, we are creating enduring values and behaviours fit for the future. As the business has grown in size and complexity, the values and behaviours that have served us well up to now must evolve. They will become an integral part of our people strategy and will inform how we attract, select, manage, develop and reward people within the business.

Our cultural transformation programme will also benefit our customer base through improved attraction and retention of talent, higher levels of engagement and more value-adding behaviours.

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Appendix 1 – Business & Development Plan Workshop Feedback and DCC Responses

The following tables capture DCC responses to feedback received during customer and stakeholder workshops held on 24 and 25 February. Some key topics covered in the Business and Development Plan were discussed at the workshops.

Day 1 – 24 February

Agenda Item / Topic	Questions raised by customers/suppliers/partners	Response from DCC
		Welcome & Introduction
Welcome and introduction	Can DCC demonstrate how the feedback from BDP2021 influenced BDP2022 and share three tangible examples?	Following the BDP event in 2021, we held a workshop with customers to work through the actions and agreed outcomes. A document including changes made as a result of customer input from the 2021 event has been shared with workshop attendees.
	Where does the BDP emerge from in DCC?	Every year, as part of our licence conditions, we are required to produce a Business and Development Plan which sets out our plans and priorities over the coming five years. Following the customer event at the beginning of the year, the outputs from the event are shared across the business and a focused planning team works through the outputs to identify what actions and initiatives can be incorporated into future planning. The Business & Development Plan is developed over six months and published by July of each year. Executive ownership of the BDP resides with the Chief Regulatory Officer
	What is DCC's BDP consultation process with the industry? Please describe (beginning to end). How can consultees formally respond to the BDP2022?	The B&DP consultation process began with the customer workshop where we sought engagement and feedback on a number of potential projects and initiatives which DCC believe are required to enable it to deliver its medium-term business objectives. The business will work on the outputs from the event to identify what actions and initiatives should be incorporated into future planning. A draft BDP is then produced which captures the proposed programme of activity and this is then shared with customers for their comment during May. Customer comments are then evaluated, and changes are made to subsequent drafts of the B&DP. Ultimately, the final version is due to be published by the end of July. Alongside this, considerable engagement continues whether it is through routine governance,

		project-specific engagement, regular surveys etc and where appropriate feedback from these exercises will be taken into account when preparing the BDP.
Improving our operational support for our customers		
Improving our operational support for our customers	Why is DCC's customer engagement function split into two different teams? How can DCC make it easier for customers and partners to be reached? (How about creating a "dedicated customer journey team" covering end-to-end processes throughout each project development phase?)	Both the DCC Operations and Customer Engagement teams work closely together and align their activities through a monthly engagement meeting. This will ensure an improvement in service for customers over the coming months and will ensure a seamless end-to-end customer journey.
	How can DCC improve its portal for suppliers to make it more interactive and customer friendly? Who will fund this initiative?	The existing customer engagement portal was developed in consultation with customers but following go live in 2021, customers advised it did not suit their needs and uptake was low. Given the cost of the system, we will be undertaken a full review of the capability of the existing system and potential amendments to make it more customer friendly. We will update customers as the review gets underway in Q3 2022.
Improving our business process - Business Accuracy Programme		
Improving our business process - Business Accuracy Programme	What are the Business Accuracy Programme benefits to customers? Why is it funded by customers?	DCC has grown in scale and complexity over the last few years and with the focus on delivery of Industry programmes, internal processes have not always had the attention they deserve. Centred around a robust business planning, forecasting, performance management and a streamlined governance process, the Business Accuracy Programme seeks to address these challenges using Capita expertise as well as some external specialist support. We will deliver an initial change programme in 2022. Demonstrating benefits to our customers and suppliers is vital and this will be at the heart of regular quarterly updates.
	Can DCC ensure that information is delivered to users in a timely manner?	We report on the Business Accuracy programme via the Quarterly Finance Forum (QFF). The programme was first presented at the 2021 Q4 meeting in December and is on the agenda for the Q1 2022 meeting on 28 April. We will continue to report through this forum.
	Can DCC explain the scope of the Business Accuracy Programme, with examples?	The scope of the programme covers a breadth of activities including; a combined portfolio view of all programmes, a front door process for 'new' change offering better horizon scanning, reviewing and updating the change methodology (CDM) and supporting tooling. Also, streamlined governance to approve new and material changes in DCC on a quarterly basis linked to the annual business plan, better reporting to track progress providing; transparency, ability to better manage risk, improved resource allocation and greater confidence in delivery dates. Better finance forecasting and planning tools and processes. Improved E2E management of 3rd party contracts through systems and processes. A schedule of communication and support for people to ensure they embrace and adhere to new ways of working and to ensure collaboration across DCC. More specific questions can be addressed through the QFF.

Improving our business process - Business Accuracy Programme	**Breakout Question: Are there any other processes that DCC's Business Accuracy Programme should focus on that would benefit your organisation?**	
	Can DCC produce accurate migration forecasts?	Migration forecasts produced by DCC are created in tandem with our customers and we work hard to ensure they are accurate. The accuracy of the migration forecasts can be impacted by a number of factors, including the quality of forecasts received from customers as well as production issues and industry delays in delivering firmware upgrades. In light of these challenges, we continue to work with customers to produce the most accurate forecasts we can.
	How will invoicing processes be simplified as part of the Business Accuracy Programme?	This is within the scope of the Business Accuracy programme, DCC will seek customer feedback on our existing invoicing process to establish potential updates and improvements.
	How can DCC improve the usability of portals to make them customer friendly and easier to access data?	The existing customer engagement portal was developed in consultation with customers but following go live in 2021, customers advised it did not suit their needs and uptake was low. Given the cost of the system, we will be undertaking a full review of the capability of the existing system and potential amendments to make it more customer-friendly. We will update customers as the review gets underway in Q3. The contact for this is customerengagement@smartdcc.co.uk, this does not form part of the Business Accuracy Programme.
	Can change control processes be improved for faster decision making?	We are currently scoping requirements to improve the change control process which will either result in improvement to the existing system or procuring a new system by Q4 2022.
	Can DCC communicate with customers and suppliers more often about the roadmap to enable better collaboration and proactivity?	The Customer Engagement Team will commence sharing a 3-month lookahead of the roadmap from May 2022. Regular updates on the Business Accuracy Programme specifically will be delivered as part of the QFF.
	Can the approach towards change management be more collaborative as it would be a good opportunity to get the right partners to the table? Currently it feels like a tick box exercise around Service Level Agreements (SLAs). Should it be a Change Request, and does it require more than eight days to respond?	DCC agree that the process could be more collaborative and engagement with service providers happen earlier on. The process should largely follow the contractual KPIs, however there should be elements of flexibility. The change process and system is currently undergoing a redesign in 2022, with an enhanced system in place 2023. During this redesign a selection of suppliers will be engaged as it will likely involve changing our ways of working. All suppliers will be engaged during implementation. DCC will endeavour to keep customers updated on planned changes to this process.
	How will DCC demonstrate its adaptability to current market challenges and include cost reduction as a key business driver in BDP2022?	The Business Accuracy programme has direct efficiency benefits linked to internal and external spend. Better governance, reporting and use of core Capita capabilities will improve resource allocation, management of activities and certainty of delivery.
	How can DCC's data formatting be improved for customer use?	Coverage data is provided to us by our CSPs. Customer can currently consume the data in three ways; by downloading and interrogating a data file covering the whole CSP region, by opening the same file in our Self-Service Interface or by checking an individual address in our

Improving our business process - Business Accuracy Programme		Self-Service Interface. Any changes to these formats proposed by customers would need to be raised via a SEC Modification.
	How can DCC's contract management processes be improved?	The Contract Management Lifecycle process and systems are being improved as part of the Business Accuracy Programme and are scheduled for delivery by Q1 2023.
	How can DCC simplify the process of SMETS1 pre-payment?	DCC is responsible for completing the migration process while energy suppliers are responsible for setting up and making devices operational.
	Will DCC provide training courses and events for customers and suppliers to get the most out of what the organisation can offer?	The Operations team offering existing training to customers focused on new deliveries coming through. The Customer Engagement team commit to identifying forums to share existing opportunities and work with customers to identify needs where we could support customers in using the ecosystem more efficiently.
	Will DCC conduct engagement surveys with customers about the programme?	The Customer Engagement team have established a quarterly audit which will capture key information around how we engage overall and across programmes. This will determine Net Promoter Score and Customer Satisfaction scores. The first audit will be issued in Q2 2022.
	Breakout Question: How should we keep you informed about the Business Accuracy Programme's progress and measure success?	
	How will DCC be clear on programme outcomes with suppliers and customers?	The Customer Engagement team are working to refine how we share programme outcomes with suppliers and feedback and make the feedback loop more effective. We are working with the business to ensure this information is provided by one source. For Business Accuracy specifically, regular updates will be provided at the QFF from April onwards tracking deliverables and outcomes.
	How can DCC establish a framework showing what's within scope and indicating operational data within the process and a timeline?	Slides 23-25 from Day 1 of the workshop include the scope of the Business Accuracy programme as well as the timeline and benefits. We appreciate the need to describe the outcomes for suppliers and customers clearly and will provide a view at the next QFF.
	Can DCC use Net Promoter Score (NPS) as a metric for success in the Business Accuracy Programme. A supplier raised NPS as a KPI for its business?	The Customer Engagement team have established a quarterly audit which will capture key information around how we engage overall and across programmes. This will determine Net Promoter Score and Customer Satisfaction scores. The first audit will be issued in Q2 2022.
	Can DCC produce a standardised dashboard with agreed KPIs for the Business Accuracy Programme?	Regular and consistent reporting based on a milestone plan will be shared at the QFF.
	Can DCC use customers' knowledge proactively to support its programmes and how?	We welcome knowledge sharing and learning from customer experiences - the BDP workshop was set up to hear directly from you, our customers, but we welcome this at any forum. If you have a specific idea or suggestion, please contact us at customerengagement@smartdcc.co.uk and we will put you in contact with the relevant team or add you to the agenda for an upcoming event.
	Will DCC organise meetings more frequently and provide regular updates via quarterly	We will continue to provide updates on the Business Accuracy Programme through the QFF.

Improving our business process - Business Accuracy Programme	executive reviews, Quarterly Finance Forums and SEC Ops?	
	Can DCC ensure version control of documents?	Any documents relating to the Business Accuracy Programme are version controlled.
Future Network Capacity		
Future Network Capacity	There is an opportunity for us as customers to help DCC and share learnings in terms of network and traffic flow relative to the network and to see if there is a case to optimise traffic flow end-to-end. Data is anonymised so there is no risk to any business.	DCC CTO organisation in collaboration with Operations have been exploring traffic management and options to improve these elements. We have a number of technical options that we intend to share through bilateral agreements in due course, and we would welcome the opportunity to expand this end-to-end to improve traffic flow between DCC and customer systems where we believe there will be benefits in terms of improved service and a reduction in the underlying cost base.
	Breakout Question: How can DCC demonstrate a proactive approach to communications with its suppliers and get them involved at an early stage?	
	Will DCC organise commercially sensitive forums and workshops to discuss roadmaps and innovation?	We respect the confidentiality of our customers and fully understand their legitimate concern over sharing information on future usage which might have commercial value to their competitors. DCC is committed to agree and then operate data collection mechanisms and/or forums which would address customer concerns.
	How can DCC demonstrate a holistic approach to roadmap development? And how can it connect strategically with long-term plans?	Central to our understanding of the activities which DCC is required to deliver is our Portfolio Office. We have invested considerable time in building integrated plans to enable us to manage the various dependencies which exist across our programmes of work, whether that is in terms of project staff or test environments. We expect that we will build on this over time so, for example, engagement activities are more closely aligned with project plans and that we have greater visibility in the longer term so as to avoid potential pinch-points, such as resource shortages.
	How will DCC work with TABASC to get directional and strategic support?	The Terms of Reference for TABASC (Technical Architecture and Business Architecture Sub-Committee) are clear - TABASC will be engaged from a technical standpoint if there are SEC implications.
	Breakout Question: What are the key energy sector trends that will impact your demand over a five to 15-year horizon?	
	Will DCC collaborate with third parties to align with industry trends?	Yes, we are committed to working with new partners and would welcome any approaches from existing customers/suppliers or from new connections who can make contact via the following form https://www.smartdcc.co.uk/partner-with-the-dcc/
	How can DCC encourage the use of renewable energy and of various gas suppliers?	We believe our purpose complements Government's Net Zero 2050 target and Ofgem's objectives of protecting the interests of consumers, facilitating decarbonisation at the lowest cost, and enabling competition and innovation. To achieve national decarbonisation, several

Future Network Capacity		transitions must run in parallel. Foremost among these are the decarbonisation of energy generation, and the electrification of sectors that are currently dependent on fossil fuels - such as transport and heat. Decarbonisation of energy will lead to the expansion of metering, other connected assets and flexibility services, and require more data to be captured and shared with customers and 3rd parties to enable dynamic and localised management of energy networks and systems. This will not only support the shift to renewable energy, but also save customers money by limiting the amount of investment required in traditional network infrastructure reinforcement. Potential opportunities for the DCC could include the following (subject to regulatory changes): • Further developing the use of half-hourly data (which can already be provided to authorised DCC Users), to allow secure sharing of higher-frequency, generation/demand and low voltage network measurements with DNOs and System Operators to help them manage network constraints more effectively. • Providing DNOs and flexibility providers (such as Charge Point Operators) with the secure communications infrastructure for enabling load control over distributed energy / flexibility assets such as solar, EVs, heat pumps and batteries. • Providing a secure, non-commercial central data exchange for the public benefit. For example, more granular price signals will enable enhanced time of use propositions to save consumers money whilst supporting net zero and also help consumers to maximise the value of their generation assets (e.g. solar) or storage assets (e.g. batteries) by optimising the time at which they sell excess power back to the grid. • Providing a secure, central registry of assets connected to the distribution networks, such as decentralised generation from domestic solar to small commercial renewables. • Offering economies of scale in providing services to end-consumers, particularly those with a social benefit e.g., identifying fuel poverty and targeting energy efficiency measures. The DCC has a strong supporting role as the centralised digital nexus for this new renewable and flexible decentralised grid.
	How will DCC work with the increased need for storage?	The full decarbonisation of energy will require the ability to store and then release power on to the network, as well as to manage demand. This will require a significant increase in the use of storage assets (such as batteries) and in flexibility services to manage Demand Side Response (DSR). This in turn will require local networks to be smarter and more dynamic, utilising granular data and pricing signals. The DCC network provides a potential mechanism through which price signals or control instructions could be delivered to devices such as batteries, electric vehicles, heat pumps and other connected assets. It would bring the significant cost benefits of using a secure, nationwide and pre-existing network, rather than creating a new capability.
	How can DCC explore going beyond smart metering? I.e. How can DCC infrastructure	More information on DCC's approach for re-using the platform can be found on our website here: https://www.smartdcc.co.uk/enabling-innovation/

DCC Public

Future Network Capacity	be used to branch out into other areas such as EV charging and healthcare?	
	Breakout Question: How can we better formalise your demand forecasts of messages, alerts and DCC usage over time to enable the network to be the right size/capacity (maintaining the right balance between cost and service)? Are there options to remove the peaks in demand?	
	Does the Data Service Provider (DSP) have a conflict of interest in managing scheduled service requests?	We recognise the potential for conflict of interest and have overcome this through investment in capacity of the DSP. We are actively reviewing the optimization of scheduled service requests on the DSP. Equally, we are investigating new technical solutions that provide users with improved prioritisation of traffic flow from the DSP without breaking existing rules centred around the scheduled reads. We expect to discuss this further with user groups in due course and as part of our traffic management improvement plans.
	Can DCC own and circulate an aggregate forecast that optimises the use of available capacity?	There is work currently underway to produce an aggregate forecast in order to optimize our capacity and we will be circulating through existing Governance forums over the coming months. It is worth noting that we have expanded our thought process in this area where we are scrutinising the impact of payloads as well as messaging particularly with the introduction of Market Wide Half Hourly Settlement and other initiatives over the coming years. This is linked to our improvements in traffic management across DCC.
	How can DCC work closer with RFI data?	Wherever possible we are linking into existing data sets. However, we do recognise there is a deficiency and are actively working towards a common dataset for our forecasting and design work (i.e. quarterly refresh).
	Install and leave data and reporting: In terms of the data for install and leave, should there be a process to provide greater insight?	Yes, we believe that this would be an invaluable data set and we will seek to include this into our forecasting process with customer input.
Market-Wide Half-Hourly Settlement		
Market-Wide Half Hourly Settlement	Will DCC plan a workshop after 7 March to update customers on the final costs of the programme?	A SEC workgroup was held on 4 April where MP162 costs were shared and discussed further.
DCC Licence Renewal		
DCC Licence Renewal	If DCC's licence ends in three years, how will Capita protect commercially sensitive	The current DCC Licence expires in September 2025. Ofgem is consulting with DCC and the wider Industry to consider the regulatory arrangements which might apply in a new licence period.

	insights from customers? What are the plans for the lead up to the licence ending?	Ofgem will define the vision and purpose for DCC during a new licence period. They will consider whether the current regulatory framework will deliver the outcomes that they believe are important and rewrite the licence/regulations accordingly. Ofgem will also consider the appropriate ownership model for DCC which could require a procurement process to identify the holder of the new licence. There will be change but DCC's core functions in relation to smart metering and switching will need to continue. DCC will participate in this process in whatever way is required by Ofgem and comply with any rules that Ofgem puts in place, for example, to ensure a level-playing field for all prospective licence holders. We will remain focused on delivering our core services effectively and efficiently through the period to the end of this licence and in navigating the transition to a new licence.

Day 2 – 25 February

Agenda Item / Topic	Questions raised by customers/suppliers/partners	Response from DCC
Switching - Address Data Management & Enduring Approach		
Switching - Address Data Mgmt. & Enduring Approach	Will SEC reporting change to monitor the new interface, replacing the operation of the current registration data interface and the RDP interface?	It is unlikely the current SEC reporting will change in the near future. The current RDPs monitor and send their data file once a day and alert for the need to raise an incident if a file is not sent. This requirement is not replicated for CSS as CSS is a message based interface and does not use batch files.
	Can DCC provide clarification on what it needs from Ofgem to address database challenges?	Smart DCC have no direct influence over the process however we did make Ofgem aware of comment raised at the BDP workshops. More work is needed to understand if the REL address could be used for other purposes however Ofgem have committed to support should any licence changes be required.
	Does DCC have nominated contacts or does it use a generic contact list?	The Nominated Contact List (NCL) is the primary contact list for DCC and contains the main and backup contacts for SMETS and is used by Operations, Customer Engagement and the Programme teams to communicate with customers. Switching have their own distribution list. It is possible for customers to be on both distribution lists if they wish. It may result in increased messages which may not all be relevant. If you wish to be added to

Switching - Address Data Mgmt. & Enduring Approach		either list, please contact us at customerengagement@smartdcc.co.uk and we will arrange it.
	Breakout Question: What issues are there with address data quality and how do you propose they are resolved? What about inconsistency in data – e.g. differences in flat address description across different locations?	
	What more can parties do to address the complexities and challenges around the new connections process to mitigate the risk of data inconsistencies?	Parties can seek to ensure that new connections are written in the form of an OS ABP address prior to the new registration request. Parties can also familiarise themselves with the REL Lifecycle document and establish a process that ensures that matched addresses are provided to CSS where applicable.
	Will the improved data set service (based on OS master data) be the same set that can be used for WAN signal validation? It would make sense to work off the same cleansed address data set.	Currently the OS data is not licenced to DCC for WAN signal validation.
	Is there an option to extend the use of the data beyond switching? Opening it up it would make the migration for SMETS2 easier for a lot of suppliers.	The option is for consideration by Ofgem who are open to suggestions from the industry. Conversations with OS can then be brokered by Ofgem.
	New addresses and plotting addresses for new connections are a challenge. How will DCC capture plot addresses and convert them into new addresses?	This is a key challenge, however, we work in partnership with DNOs and Gas Transporters who ensure the accuracy of the MPL Addresses recorded for their metering points, and shall support any investigation by the CSS Provider where the MPL address does not match an address held in the GB Standardised Address List.
	Is the contract with Ordinance Survey coordinated by DCC or Ofgem?	The contract with Ordnance Survey is provided via our sub-contractor Landmark who are a reseller of OS licences.
	Leveraging of partner data expertise: Could there be an opportunity to leverage the high-level data analytics departments within DCC's network of partners to cleanse the data to make it suitable for use?	The address data used for switching is held under licence from Ordnance Survey for the express purpose contained within that Licence. DCC has discussed the wider use of the Ordnance Survey licence with Ofgem and it would be willing to discuss the wider use of the licence with OS.
	Can more clarity be provided on what is needed from Ofgem to bring REC and SEC requirements together?	REC and SEC code bodies have established cross-code governance to manage situations where there may be contention.
	Breakout Question: We will have to continually improve address data quality after Go-Live. What ideas do you have that may help to drive continuous improvement?	
	How does DCC maintain accurate databases when customers change a house number to a house name?	CSS matches data to Ordnance Survey which contains a number of variations on a given address. Where house numbers / names are changed, the old name becomes a historic address however the unique identifier for that address remains unchanged.

Switching - Address Data Mgmt. & Enduring Approach	**Breakout Question: Which topics or areas of DCC's live switching operation are of most interest for this consultation?**	
	Customer Journey: What is DCC's solution for customers who attempt to switch but are unable to?	If a switch fails due to an issue, for example with an address, a service management incident is likely to be raised and then it will be handled through the Service Desk. In many cases a switch will fail as the result of an objection and that is handled by the losing supplier communicating with the consumer and will not be handled by DCC.
	Switching might have a different latency requirement and latency response times. Can customers engage with DCC regarding performance around network response times?	Once Switching enters in-life operation in July 2022, its operation will be regulated by the Retail Energy Code (REC) and it will fall under formal REC governance overseen by RECCo and the REC Code Manager. Switching can be used by consumers 24/7, 365 days a year. Switches will be processed on next weekday basis and out of hours switches will be batched for the next working day. We are happy to discuss performance through REC governance.
	Can DCC make it clear if targets are more challenging to achieve rather than moving goalposts frequently?	Yes, similar to the existing reporting processes with SEC, the REC will be sharing regular programme updates, risks and milestone activity.
	Can DCC provide justification for what it said it would do versus what actually happened?	Yes, similar to the existing reporting processes with SEC, the REC will be sharing regular programme updates, risks and milestone activity.
	Can DCC communicate risks for switching early, especially where there is potential for significant costs for parties beyond DCC?	Yes, similar to the existing reporting processes with SEC, the REC will be sharing regular programme updates, risks and milestone activity.
	SEC has had a lot of issues relating to address data format and has different expectations from service providers. Could this be used as an opportunity to have a consistent end-to-end format and process for address formats?	Address quality improvements have been achieved through our contract with Landmark and their Licence with Ordnance Survey. The use of Ordnance Survey's addresses was limited to supporting switching. When we meet them next we will raise the wider interest and explore what can be done on the back of this Programme given the Licence restriction.
	Breakout Question: What would be the most effective ways of engaging with our customers on switching after Go-Live?	
	How will performance of the switching process be measured and what will the granularity of these measurements be? Can DCC include the number of switches that have met requirements and the number that have failed? Can DCC review and discuss progress with customers as part of this process?	Switching Performance Monitoring is the responsibility of the Performance Assurance Board (PAB) managed by RECCo. DCC will report on performance through the PAB which will manage the reporting mechanisms for REC Parties. We would encourage customers who are REC parties to engage with the work of the PAB.
	How will REC and SEC bodies align reporting on switching? There is a potential operational impact if there is a new interface. If the direction of travel from faster switching	REC and SEC code bodies have established cross-code governance to manage situations where there is a risk of duplication, overlap or contention.

Switching - Address Data Mgmt. & Enduring Approach	potentially pushes design changes on smart meters or the smart metering infrastructure, then that needs to come through the SEC, which could be tricky to navigate as it will be different people on REC and SEC.	
	Can DCC define faster switching topics before a QFF, so that attendees can clearly see the purpose of the discussion and what DCC aims to achieve? Can agendas be shared in advance to ensure correct attendance?	The QFF agenda is shared in advance and can include Switching. We are mindful of the risk of duplication with SEC and REC and we commit to updating you on the process prior to Go Live to ensure we avoid duplication.
	Communications: Can smart and switching communications remain separate, with customers nominating who should receive each type of communication via the Nominated Contact List?	Yes, the intention is to keep the lists separate. However, if you wish to be added to either the Nominated Contact List or the Switching list, please contact us at customerengagement@smartdcc.co.uk and we will arrange it.
	Seamless customer journey: Can DCC ensure that the journey from smart to switching to another supplier is seamless for the customer involved? A customer will see ease of switching as part of the smart energy solution so, whatever way DCC manages it, this must be taken into consideration.	The Switching Programme has focused on the design, build and test of a service that provides a service to consumers switching supplier, whatever their meter type.

Agenda Item / Topic	**Questions raised by customers/suppliers/partners**	**Response from DCC**
Data for Good - Data Services Strategy		
Data for Good - Data Services Strategy	What are the expected use cases to be explored through the Open Data Initiative?	DCC are working with the ODI to identify indicative use cases particularly those that can help support our customers, stakeholders and deliver public benefit. We are developing our engagement plan and will be keen to capture input and feedback within the next few months.
	What access do customers/suppliers have to the outcome of innovation competition? Can Proprietary licenced / suppliers access this?	Modernising Energy Data Applications is an INnovate UK funding competition with outputs made available publicly. The outcome of the Innovation competition will be made public following the conclusion of the project in June 2022.
	Can DCC harness Vodafone's complimentary data capabilities and willingness to collaborate to benefit ODI?	We are in contact with Vodafone and will be planning a meeting to discuss in more detail, shortly.
	Breakout Question: How can system data help you achieve your goals?	
	What is DCC's intention in regards to selling data?	As part of DCCs data access initiative - Data for Good - DCC has declared an ambition to maximise data access at the lowest possible cost to enable innovation and public benefit. We are exploring, with the support of the ODI, different options to ensure that data access provision is financially sustainable and will engage with industry on those considerations.

Data for Good - Data Services Strategy	How can DCC ensure the Consistency, reliability & timeliness of data on power outage alerts, network load and voltage data?	Through our DNO transformation programme, we are looking to enhance the consistency, reliability & timeliness of data on power outage and restoration alerts, network load and voltage data. There is an ongoing project looking at how we can work with DNOs to optimise network usage to deliver high quality, timely data for voltage and consumption usage. This testing is likely to conclude late Q3/22 with the implementation of optimised usage profiles implemented by DNOs in Q4/22 if in agreement. There is also work ongoing within the DNOs to make use of the DSP scheduler which again is expected to conclude by the end of Q4/22.
	Can DCC clarify how it distinguishes between systems and message content data?	Systems data relates to the type, time and date of messages sent to and from connected devices. Message content is the information that contained within those messages and is not visible to DCC due to the security model. Further detail is available in https://www.smartdcc.co.uk/media/1254/21037-dcc-data-for-good-paper_v8-final.pdf
	DCC must enable system data but should position itself to enable content / payload data. Can DCC recognise extensibility as part of its strategy?	We recognise the drivers for increased access to payload (message contents) both at household and aggregate levels. The need is identified recommendations of the Energy Digitalisation Taskforce and the smart meter public interest advisory group and we will explore with stakeholders and industry, as appropriate, how we can support this requirement.
	Why do DCC use metadata when there are huge amounts of uses for the payload but it's harder to see the benefits for the metadata?	Changing the current access regime would require significant technical and regulatory change. We have identified a number of use cases for system data and are continuing to develop them to maximise the benefits that can be derived from this data set.
	How do DCC address concerns over consumer data privacy and how could open data be of use to suppliers businesses? The content of data from consumer devices is more interesting than system data, however it would be difficult to do given consumers' distrust of government and energy providers. With the Smart Metering Programme only 50% of the way through, concerns around privacy could deter the remaining 50% from getting a smart meter, if "naysayers" hear data from consumer devices are being used.	We fully recognise the importance of maintaining consumer trust in the adoption of smart meters. A key strand of our work with the Open Data Institute is to deploy a communication strategy that engenders trust and maintains transparency across our stakeholders and the public. We are also building on research and guidance relating to consumer attitudes toward use of smart meter data as established through the work of the smart meter public interest advisory group, including an explicit research piece undertaken by Ipsos Mori. Communicated effectively, we see opportunities for wider data use to help accelerate the roll out. Smart meter system data is a unique asset that provides GB-wide insights support consumer segmentation and tailored messaging.
	How are DCC paying for the project with ODI? What is the incentive for customers to pay for project activity that would give data away for free rather than coming back to DCC users? Will DCC keep stakeholders informed if it plans to release any data free of charge?	The ODI are a part government funded body and have provided aspects of their support without charge. We are working with them to explore the opportunities and implications of smart meter data system access for public benefit purposes, including options for a financially sustainable model. We are

Data for Good - Data Services Strategy		developing our engagement plan and will be keen to capture input feedback within the next few months.
	Location data: Could Geography and hotspot datapoints (whether less or more communications are happening) be made accessible? This could indicate where capacity and campaigns can be aimed by suppliers, signal which parts of the country are more apathetic towards smart metering, or areas where the infrastructure is not good enough.	With the appropriate provisions, we believe system data could be used at an aggregate level to establish insights in specific geographies. This could include understanding rates of smart meter deployment, enabling the development of targeted area based campaigns.
	Industry segmentation: Could DCC provide further insights into the types of messages (who is on prepay/credit)? This could indicate which industries might be in a certain area. Aggregating and sharing would enable suppliers to tap into this in conjunction with own campaign abilities. This could have huge amounts of benefit for smart suppliers who want to push smart metering to those areas.	With the appropriate provisions, we believe system data could be used at an aggregate level to establish insights in specific geographies. This could include understanding rates of smart meter deployment as well as other indicators, pre-pay / credit etc., enabling the development of targeted area based campaigns.
	How can Smart DCC reduce ambiguity on these assumptions being made? For example, it could be assumed that if a customer is topping up they are on prepayment but they could be using residual supply.	Data science forms a key strand of the MEDapps fuel poverty project and the team are applying a range of techniques to validate the model. .
	The granularity of system data being analysed is not deep. How can DCC increase the level of usefulness and granularity provided by its system data?	The granularity of data used needs to be balanced very carefully with data protection considerations. Our ambition is to maximise the utility of the data, whilst ensuring data continues to be used appropriately and in compliance with regulations.
	Could DCC increase the openness of its analysis and allow others to access and use it?	DCC is primarily seeking to provide access to data. Analysis being completed through the MEDapps fuel poverty project will be made available publicly.
	Could marketing insight be shared? This would be valuable at the aggregate level to inform campaigns.	With the appropriate provisions, we believe system data could be used at an aggregate level to establish insights in specific geographies. This could include understanding rates of smart meter deployment, enabling the development of targeted area based campaigns. We are working through the regulatory framework, data compliance, commercial and technical data access considerations to enable access to this form of data sharing.
	Collaboration with suppliers could maximise the value of data: Can Smart DCC collaborate with the supplier ecosystem to connect data points without compromising consumer privacy?	We would welcome opportunities to collaborate around system data use and have agreed to set up a session by end of May to discuss further - the opportunity to learn from trusted partners is always welcome.
	Does the current infrastructure support enabling smart meter system data? It could prove expensive if the capabilities needed are not designed from the start.	We are considering the technical implications of smart meter system data access at scale and exploring options that ensure that provision could be cost effective and financially sustainable. A number of options are being explored and we will be engaging further with industry on these as they are progressed.

Data for Good - Data Services Strategy	Benefits for the "greater good". Can the infrastructure be used to benefit areas such as the NHS?	Enabling public benefit is a key principle of this data access initiative. We would welcome further opportunity to discuss how system data can support wider public benefit including in the health sector. For example, we have held initial discussions with the NHS on the fuel poverty model and the potential health and wellbeing benefits associated with increased deployment of energy efficiency measures.
	Breakout Question: Are there any initiatives already underway that you feel would be complementary?	
	Rise in EV apps: Could organisations using EV hotspot apps / EV apps compliment system data insights? These organisations are probably working off a similar base – location, use, tariffing, customer meter types etc.	The long term ambition of Data for Good is to operate as a data exchange, maximising the potential for access to and integration with multiple different data sources. We hope that supporting the transition to low carbon transport and Electric Vehicle charging is a use case the network could support in the future.
	Time on/off energy usage: What more can DCC do to link up with apps telling consumers the optimal time to turn energy on/off?	DCC has no relationship with the end consumer. In time, system data may be-able to provide visibility at an aggregate level which can help to inform policy and industry proposition development in relation to time of use tariffs and demand side services.
	Could smart meter related data inform the UK Government's National Retrofit Strategy?	Acceleration of energy efficiency and domestic retrofit is a potential use case for smart meter system data. We will seek to engage further with Government around this topic.
	Measuring the success of prepayment. In relation to tracking fuel poverty, a SecOps representative flagged some work they are doing around measuring the success of prepayment. While not directly linked, could this work complement DCC's data?	We would welcome further information and to explore complementary areas or work.
	Breakout Question: How would you like to participate / be engaged in the Data Services Strategy?	
	Access to an aggregated portal: Could DCC provide a demo of what an aggregated portal looks like and enable customers to feed in suggestions? Could a test environment for what that portal might look like be provided to enable customer involvement at this stage?	We are at an early stage of thinking in relation to the final technical solution and its look and feel - we will build this request into our thinking at the appropriate stage in development. We would welcome further input in time to ensure we understand prospective user requirements including at a test stage.
	Bilateral supplier engagement: Could DCC follow BEIS' example in opening up bilateral engagement to suppliers alongside customers?	We are working on our engagement plan for industry and other stakeholders and will ensure there are multiple opportunities for dialogue with all stakeholders as we progress.
	Use case testing. Can DCC provide opportunities to test new product offerings in the smart world once the meters are out? This should look at how the device interconnects with solar, EV's, storage, sustainability, time of use.	Please see details of DCC Boxed https://www.smartdcc.co.uk/our-smart-network/network-products-services/dcc-boxed/ for information on early stage testing and product development.
	Access to customer profile data and usage patterns: customer half hourly profile data is central to understanding	We recognise the drivers for increased access to payload (message contents) both at household and aggregate levels. The need is identified as one of the

	usage patterns. But also need to know where a customer is located, what kind of customer they are, and what industry they operate in. Could DCC embolden this information and match it up with system data to create a richer picture? This could achieve Ofgem aims faster and promote energy sustainability and the power of good data.	recommendations of the Energy Digitalisation Taskforce and the smart meter public interest advisory group and we will explore with stakeholders and industry, as appropriate, how we can support this requirement.
	Working in collaboration to tune into DCC requirements: Can DCC and its ecosystem leverage other useful datasets, such as weather / long range weather requirements?	The long-term ambition of Data for Good is to operate as a data exchange, maximising the potential for access to and integration with multiple different data sources.
	Formal structured workshops. Can DCC engage with customers and suppliers through formal workshops to move forward more quickly?	We are developing our engagement strategy for 2022/23 and will be establishing a series of activities to engage with industry further.

Agenda Item / Topic	**Questions raised by customers/suppliers/partners**	**Response from DCC**
		Electric Vehicles
Electric Vehicles	Is EV part of DCC's BDP 2022 mandatory business?	EV is not part of DCC's mandatory business however, subject to Government decision, it might form part of DCC's mandatory business in the future. In summer 2019 Government consulted on EV smart charging, outlining its objectives and gathering evidence on a long-term solution. As part of that consultation the smart metering infrastructure was proposed as the lead solution. This position was reiterated by BEIS in its response to this consultation in 2021. Why are BEIS considering use of the smart metering network? DCC is well placed to enable the management of domestic load associated with EV. This can be done at a low-cost using assets which have already been developed, proven and paid for. To protect consumers, whilst enabling interoperability, the infrastructure will need to be as secure as smart metering is today. DCC could deploy the capability to manage load securely and provide a platform to provide complementary functionality or, in alternate options, we could provide critical elements of a PAS 1878/9 based solution including PKI and Anomaly Detection. Either way, we are not here to compete with energy retailers, chargepoint operators etc. for provision of services to end-consumers. As is the case for Smart Metering, DCC will remain a B2B organisation, providing an underpinning platform upon which others can deliver their offerings.
	Does DCC see EV as separate from other possible use cases and their benefits such as healthcare at home	The use of the DCC network to facilitate a nationwide system of EV charging is distinct from other use cases, in the sense that Government has already identified it publicly as a potential solution which it is actively considering. As such, we are responding to Government requests for information as they

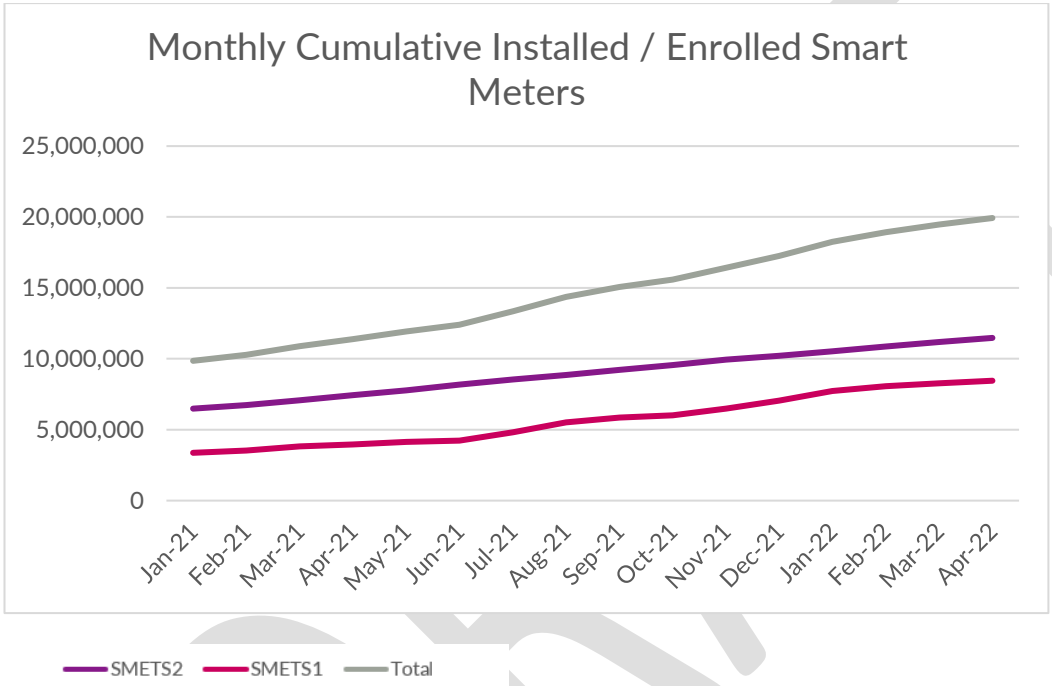
	and connecting wider devices? Or is it part of broader strand of where we go after smart meters and interconnectivity, coming off the back of this investment?	continue their analysis and decision-making processes. There are many other potential use cases which can be envisaged which leverage the capabilities of the DCC network - if and how these are taken forward will be the subject of discussion with Government, customers and other stakeholders, however, we do not anticipate any substantial movement on these for the foreseeable future.
Smarter, Greener Lives - Day 2 wrap up		
Smarter Greener Lives - Day 2 wrap up	What are the barriers to smart meter adoption in relation to privacy concerns?	DCC has no direct involvement in smart meter adoption, however Smart Energy GB have sought to convey the protection available to users. The Department for Business, Energy & Industrial Strategy have created the Data Access and Privacy Framework that sets out the principals for keeping smart meters secure. Much research is already available exploring attitudes to privacy following Smart Meter adoption (see Mori, 2018 https://www.smartenergydatapiag.org.uk/_files/ugd/ea9deb_78a25e5536d247c98b4e5928fb9bc601.pdf; and UCL, 2021 https://www.mdpi.com/1996-1073/14/5/1285/pdf).

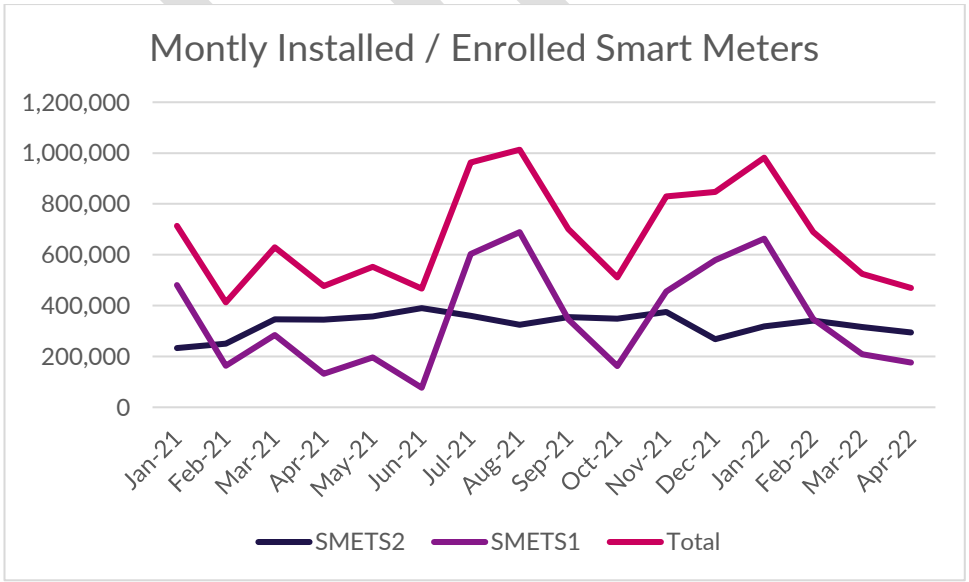
Appendix 2 - Smart Metering Network Utilisation

We report regularly on the performance of our products and services through a variety of channels including monthly, quarterly, and annual performance reports – all of which are available from our Technical Operations Centre. The following sections summarise the current condition of the smart metering system and assess its future capacity.

Volume of Installed Meters

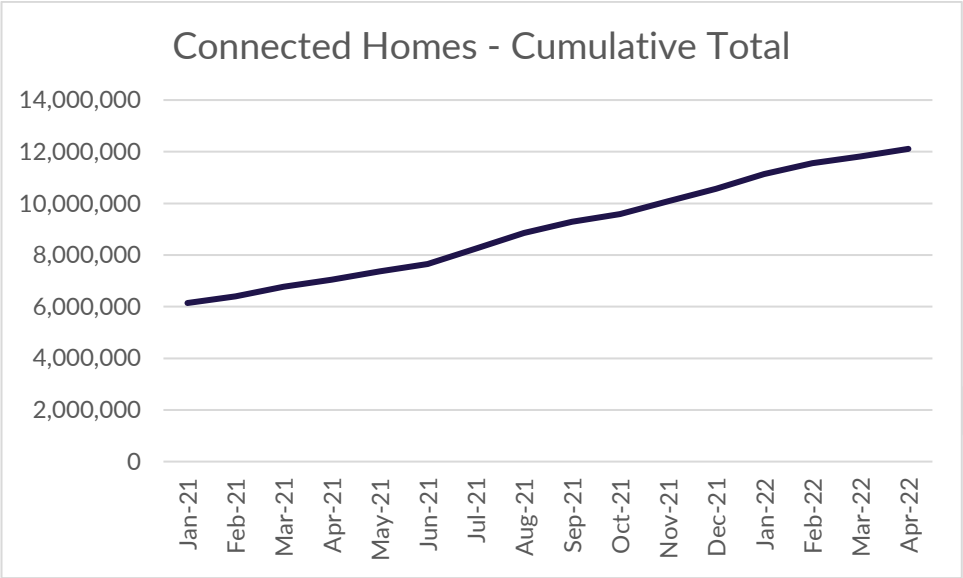
As this document is published the number of smart meters commissioned on DCC's network is 20,440,118[1], which represents approximately 38% of all meters in Great Britain.





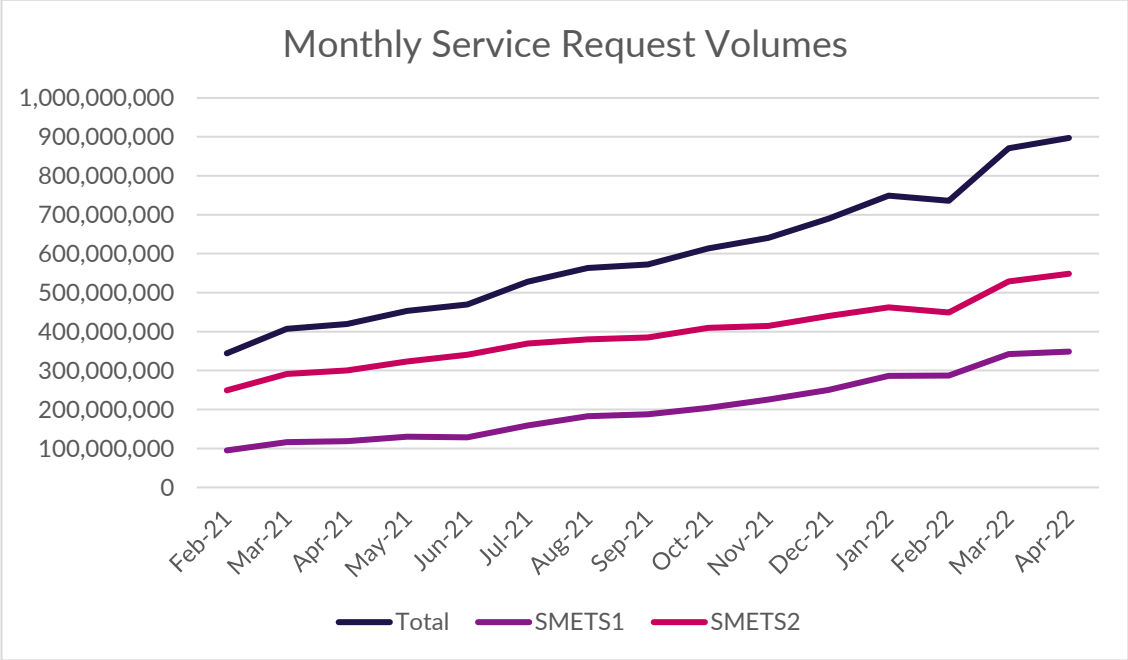
[1] As of February 2022.

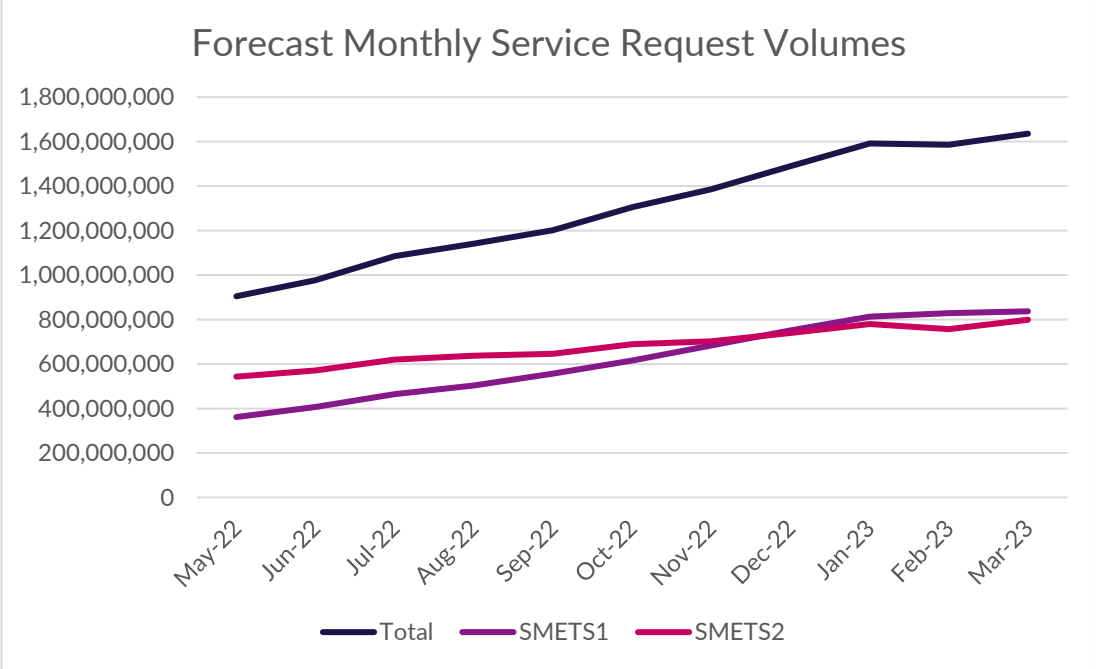
We are nearing 12 million connected homes, with either a SMETS2 meter installed or an enrolled SMETS1 meter. As there are approximately 30 million homes in the UK, this indicates that the industry is nearing the halfway point of the roll-out.



Service Request Volumes and Forecasts

As smart meters continue to be installed and enrolled, we are seeing a month-on-month increase in service request volumes. Between March 2021 and March 2022, service request volumes increased by 113%. Once all meters are commissioned on the network, the network will have capacity to carry more than three billion service requests a month, at an average rate of 1,100 per second.


Monthly Service Request Volumes
1,000,000,000
900,000,000
800,000,000
700,000,000
600,000,000
500,000,000
400,000,000
300,000,000
200,000,000
100,000,000
0
Feb-21
Mar-21
Apr-21
May-21
Jun-21
Jul-21
Aug-21
Sep-21
Oct-21
Nov-21
Dec-21
Jan-22
Feb-22
Mar-22
Apr-22
Total
SMETS1
SMETS2


Forecast Monthly Service Request Volumes
1,800,000,000
1,600,000,000
1,400,000,000
1,200,000,000
1,000,000,000
800,000,000
600,000,000
400,000,000
200,000,000
0
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Total
SMETS1
SMETS2

DCC Public