DCC Business & Development Plan (BDP) 2023/24 Consultation

Your chance to shape DCC's five-year BDP

Date: 24/04/2023
Respond by: Midday on 24/05/23
Author: Business & Development Plan Team
Classification: DCC Public

Table of Contents

1. Introduction and Context

The Data Communications Company (DCC) is Britain's digital backbone, supporting the transformation of the energy system. DCC is 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. DCC supports 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. Purpose of the consultation

We are delighted to share a draft version of key sections within the DCC's Business and Development Plan 2023/4 for consultation. Please find enclosed a draft of the following:

- Section 3: Our Operating Context

- Section 4: Our Strategy

- Section 5: Outcomes

These sections form the majority of the plan and we are keen to ascertain and take account of your views as we finalise these elements. Sections 1 (CEO forward) and 2 (Who we are and what we do) are not included for consultation. It is our intention to not include the Financial Summary (previously Section 6) in this year's document.

This document remains in its early stages of development and all content should be considered "Draft". DCC will consider all information included in light of feedback from this consultation and further internal reviews prior to formal publication, and reserves the right to amend and alter information included within the final document as part of this process.

Customer feedback received earlier this year during the Business and Development Plan early engagement workshop has already fed into our plans. We have also included an appendix item "You said, we Did" which sets out queries and comments from the session and answers where relevant. This will be updated and included for the final publication.

A set of consultation questions are included at the start of each section to help guide your feedback and comments.

Our customer engagement team will remain on hand through the course of the consultation if you need our assistance, or would like to discuss elements of the plan in more detail.

At the DCC we continue to seek ways to provide a quality experience for our customers. Central to this is ongoing feedback on our plans.

2. How to Respond

Please submit your feedback by midday on Wednesday 24 May 2023 to customerengagement@smartdcc.co.uk.

Consultation responses may be published on our website www.smartdcc.co.uk. Please state clearly in writing whether you want all or any part, of your consultation to be treated as confidential. It would be helpful if you could explain to us why you regard the information you have provided as confidential. Please note that responses in their entirety (including any text marked confidential) may be made available to the Department for Energy Security and Net Zero (The Department) and the Gas and Electricity Markets Authority (the Authority). Information provided to The Department or the Authority, including personal information, may be subject to publication or disclosure in accordance with the

access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004). If The Department or the Authority receive a request for disclosure of the information, we/they will take full account of your explanation (to the extent provided to them), but we/they cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.

If you have any questions about the consultation, please contact DCC via customerengagement@smartdcc.co.uk.

3. Draft Business & Development Plan 2023/24

3.1. Section 3: Our Operating Context

Consultation Questions

1. Do you believe we have captured the key market trends impacting DCC over the course of the next five years? Are there additional trends that we should be considering?
2. Are there additional implications for the DCC beyond those identified?
3. Is the link between market trends and DCC activities clear? If not, how could we make this more explicit?

3.1.1. Introduction

The DCC operates at the intersection of energy, secure technology and telecoms, and Government policy. Across these domains, the speed of change is increasing, albeit to varying degrees, which places an increased importance on the DCC's ability to understand them and identify the implications. This section assesses some of the key trends that impact our broader operating context.
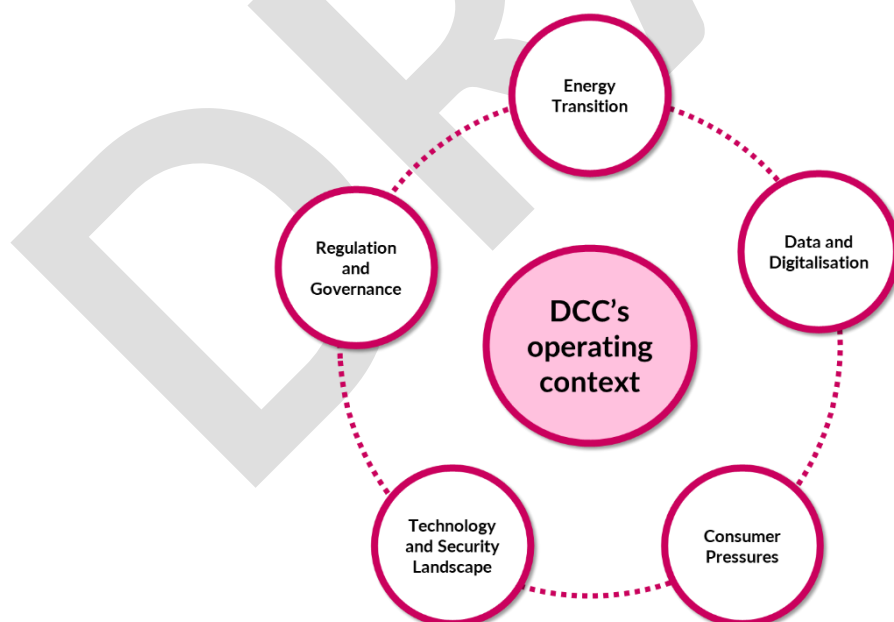
These challenges are of course not unique to DCC. As a licenced monopoly at the centre of an evolving energy ecosystem, we continue to look for ways to work collaboratively with all our stakeholders to anticipate, respond to, and manage changing requirements.

3.1.2. The Energy Transition

The UK Government has set a target of achieving Net Zero carbon emissions by 2050. The 4th Carbon Budget, which runs from 2023-2028 requires a step change in decarbonisation relative to previous carbon budgets. Increasingly, the "3Ds" of decarbonisation, decentralisation and digitalisation are reshaping the way our energy system works and have the potential to accelerate the energy transition.

Electricity demand is forecast to increase by 50% by 2035[1], driven by the adoption of low carbon technologies such as electric vehicles and heat pumps. From 2025, no new build homes will be fitted with gas boilers, and the Government is aiming to install 600,000 heat pumps annually by 2028.

To help offset this increase in demand, and the associated impact on energy bills from high prices, there is a growing focus on energy efficiency. At a national level, the Energy Efficiency Taskforce, has been established to support the reduction of energy demand through accelerated delivery of energy efficiency across the economy. At a regional level, the Greater Manchester's Retrofit Task Force, is designed to support this ambition.

In parallel, there is an increasing acceptance of the role demand side flexibility will play in balancing supply and demand and mitigating peak demand increases, especially as Market wide Half Hourly Settlement launches in 2025. During winter 2022/23 National Grid Electricity System Operator (ESO) launched the Demand Flexibility Service (DFS), which paid consumers for reducing their electricity usage during peak times. This was the first national deployment of a demand side response (DSR) smart energy policy in the UK and was dependent on smart meter data.

This greater level of system wide flexibility is required in part because of the increasing proportion of low carbon generation. As outlined by the ESO, integrating large volumes of renewables, especially offshore wind, will require strategic whole system planning and increased levels of regional coordination.

Key to the planning and management of an evolving energy system will be the creation of the Future System Operator, and the transition from Distribution Network Operators (DNO's) to Distribution System Operators.

<u>What does this mean for DCC?</u>

- **Absolute focus on ensuring reliable network performance as greater numbers of consumers adopt and use smart meters to influence and manage energy usage**
- **Ensuring our systems and infrastructure are sufficiently flexible and scalable to support ongoing evolution of the energy system and the changing nature of requirements of the DCC, from customers, system bodies and new entrants**
- **Continued engagement with industry and the ESO on the delivery of future editions of the Demand Flexibility Service and timely progression of Market wide Half Hourly Settlement to support innovative flexibility propositions and effective management of local networks**
- **Continued engagement with Government and regulator proposals around future flexibility services and protocols, including the provision of a secure, central register of assets**
- **Supporting innovators with the capability to use our secure network to enable load control, the balancing of distributed energy, and flexible assets such as solar, EVs, heat pumps and storage**

---

[1] Sixth Carbon Budget - Climate Change Committee (theccc.org.uk)

- Engagement with national and regional stakeholders to identify how greater use of system data can support energy efficiency schemes, from more targeted identification through to more enduring solutions

3.1.3. Data and Digitalisation

Decentralisation of the energy system will not be possible without digitalisation, which is 'integral to all aspects for the future energy system'[1].

In the energy sector, a multitude of initiatives – policy making, market stimulation, industry-led activity - are uniting around digitalisation and data exchange to enable the energy system transition and deliver a low carbon future. The impending Data Protection and Digital Information Bill, the 'Digital Spine' feasibility study and various ongoing innovation programmes re-enforce the Government's desire for a pro-innovation, pro-growth data landscape.

Smart meter data is at the heart of the energy sector transition and critical to achieving net zero targets. With 25m smart meters now installed, the smart system is already generating over 1.4bn data transactions every month. Democratising access to smart meter data can unleash the transformative potential of the system, allowing existing and new organisations alike to innovate, engage consumers and deliver system benefits.

Unlocking greater use of smart meter data requires consideration of complex, broad ranging issues which relate as much to the regulatory and governance framework for data access as the technical mechanisms through which data can be obtained. Changes to the current smart metering regulatory framework - and particularly as new data protection legislation is adopted - must retain and ideally enhance trust for the end consumer that their data will be used in a secure and lawful manner. Deploying mechanisms to control access whilst creating the environment where public good use cases can flourish is complex, but critical.

Energy Systems Catapult, supported by DCC, will be shortly publishing a white paper that sets out a number of recommendations to help ensure that public good benefits of smart meter data can be realised more effectively in the short, medium, and long term.

What does this mean for DCC?

- Absolute focus on reliable network performance to ensure customers receive the data they need to develop innovative products and services, and are able to test these safely in a controlled environment
- Continued engagement with interested 3rd parties to support and enable innovation projects seeking to leverage the power of smart meter data
- Continued engagement with Ofgem to support and inform ongoing regulatory considerations regarding data and the digital regulatory landscape

3.1.4. Consumer pressures

During 2021 and 2022 there were unprecedented increases in the energy price cap, which led the government to introduce the Energy Price Guarantee in October 2022 to protect consumers from the significant increases in wholesale gas prices. Energy price rises have had a significant impact on household bills and consumers engagement with energy usage. 92% of energy bill payers said they made changes to their energy use to save energy between October 2022 and February 2023[2].

---

[1] Future Energy Scenarios 2022, ESO
[2] Attempts to save energy fail to prevent bills shock - KPMG United Kingdom

Price rises have placed millions of households at risk of falling into fuel poverty and sharpened the focus on protecting vulnerable consumers. Figures from National Energy Action show that as of April 2023 7.5million UK households are in fuel poverty, meaning they are unable to afford to heat their homes to the temperature needed to keep warm and healthy. This is up from 4.5million in October 2021[1].

The rise in fuel poverty has placed an increased focus on the role of prepayment meters within the energy system. Ofgem recently announced a new Code of Practice regarding installing prepayment meters for vulnerable consumers. Furthermore, there is increasing discussion for more substantive measures to support vulnerable consumers, notably through a social tariff.

'There is a case for examining, with urgency, a social tariff that limits the impact of extremely high prices and reduces volatility for a defined set of vulnerable groups.' Jonathan Brearley, Ofgem CEO

What does this mean for DCC?

- **It is imperative that the DCC operates efficiently and continues to deliver value for money so that we do not add unnecessarily to the pressure on household energy bills. Through our cost benchmarking exercise, we are continuing to scrutinise our cost base and look for further efficiencies**
- **Explore the most economic and efficient means to prioritise network traffic for the most time critical messages, adopting a 'never fail a pre-pay' mindset to drive focus and support to prepayment messages**
- **Continue engagement with Government and industry to explore how the smart metering infrastructure and smart meter data can be used to help consumers in fuel poverty**

3.1.5. Technology and security landscape

The UK will sunset 2G and 3G services by 2033, with some 3G networks already in the process of shutting down. This is in part driven by the continued adoption of newer 4G and 5G technologies. The recent UK Wireless Infrastructure Strategy set an ambition to deliver nationwide coverage of standalone 5G to all populated areas by 2030 and increase 4G coverage to 95% of the UK landmass by 2025.

In parallel, the rollout of fibre gigabit broadband continues to progress, with the £5bn Project Gigabit programme seeking to expand coverage to at least 85% of premises by 2025 and over 99% by 2030. 74% of UK premises now have gigabit broadband, up from 6% in 2019.

As the number of connected devices grows, the importance of ensuring a secure and resilient network has also increased. The war in Ukraine and broader geopolitical security context has led the National Cyber Security Centre issue an alert that critical national infrastructure (CNI) and CNI like organisations should be on high alert due to the increased threat from state-aligned groups. These groups are typically less motivated by financial gain, nor subject to control by the state, and therefore their actions can be less predictable and their targeting broader than traditional cyber-crime actors.[2]

Coupled with this is an increasing proliferation of commercial cyber tools, lowering barriers to entry for state and non-state actors and leading to a more unpredictable threat landscape over the next five years. The increasing power of advanced technologies, such as artificial intelligence and quantum computing provide both a significant opportunity and new threats. For example, quantum computers can potentially put in jeopardy most of the mechanisms commonly used to encrypt information and will be become an increasingly important topic.

What does this mean for DCC?

---

[1] National Energy Action
[2] National Cyber Security Centre

- **Ensure continued progress and timely delivery of our Communications Hubs & Networks Programme to address impact of 2G and 3G sunsetting**
- **In line with the UK Wireless Infrastructure Strategy, continued engagement with Government, our customers and suppliers, Ofgem and Ofcom to support the digitalisation of the energy sector**
- **Continued focus on ensuring our security capabilities remain appropriate and commensurate to the threat, working closely with our stakeholders and suppliers to maintain vigilance across the supply chain**

3.1.6. Regulation and Governance

The path to net zero must be underpinned by appropriate regulation and governance that enables change at the pace required to meet ambitious decarbonisation targets. One element of this is the proposed Energy Code Governance Reform which seeks to develop an institutional governance framework that is forward-looking, agile, easy to understand, and able to accommodate a growing number of market participants.

There are important dependencies between the code reform agenda and DCC licence renewal. The DCC Licence was originally awarded in 2013 and is due to expire in 2025. Ofgem are currently consulting on the principles and scope of DCC's Licence and regulatory arrangements for the 2025-2040 period, with the objective to put in place an effective regulatory framework for a future DCC[1].

What does this mean for DCC?

- **As a SEC and REC Party and central delivery body the DCC are involved as a stakeholder sharing our experiences to inform the code reform proposals**
- **We are committed to working with Ofgem to ensure a smooth transition to the most appropriate regulatory framework and, if appropriate to a new governing body, that will ensure the DCC can utilise its full potential, leverage the value of its assets, and deliver societal and system benefit as an efficient and responsible operator**
- **We have a responsibility to deliver our programmes and operational services through to the end of the licence but also then to ensure continuity into a new licence period in whatever form that takes. So, this Business and Development Plan 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**

3.2. Section 4: Our Strategy

Consultation Questions

1. DCC is undertaking a significant volume of activity in response to customer and stakeholder feedback.
   a) Are we clearly communicating what it is?
   b) Are we clearly communicating why we are doing it?

2. Are there additional areas of focus you would like to see referenced within this section? If yes, what would those be and why would you like to see them discussed?

---

[1] DCC review: Phase 1 Consultation | Ofgem

The DCC, together with our customers, connects homes and businesses to a single, secure, smart metering network.

3.2.1. Purpose, mission, values

Our purpose is – we believe in making Britain more connected, so we can all lead smarter, greener lives.

Our mission is to digitise Britain's energy system, enabling innovation and re-use of the DCC network to accelerate decarbonisation and drive social good.

How we achieve these is guided by our three core values. They help us to work consistently and collaboratively, internally and with our diverse set of external stakeholders.

To help align our activities and measure our performance, we have outlined a series of outcomes for our organisation. These are the rationale for why we do what we do in order to deliver value for our customers, and GB consumers.

These are:

- Deliver reliable network performance, ensuring security and resilience
- Operate responsibly and efficiently, delivering value for money
- Provide a quality experience for our customers and our people
- Re-use the network for public good

3.2.2. What we operate

We operate and maintain the smart metering network, 24/7, securely transferring energy data from homes and businesses to our customers. We do this by supporting the roll out of second-generation (SMETS2) smart meters and the migration of existing first generation (SMETS1) meters onto our network, for domestic premises and small businesses across Great Britain. We are currently undertaking a programme of work to prepare for the roll-out of next generation, 4G smart meters expected to be deployed onto the network from 2025 onwards.

Our customers are energy retailers, Distribution Network Operators (DNO's), Managed Service Providers (MSP's) and a growing number of other innovative businesses.

The DCC has delivered additional services beyond the original scope of its role at the licence award in 2013, notably providing the Centralised Registration Service (Switching) which went live in 2022. This makes switching energy suppliers faster, more reliable and more efficient. It supported c.250,000 energy switches in March alone.

Given our position as the digital backbone of the GB energy system, and an already established national asset, the DCC may be asked by Government or Ofgem to deliver future policy initiatives. The DCC's reach, scale and inherent security provides a platform for policy implementation.

For example, the Government is currently considering the use of DCC as part of its broader consultation regarding a Smart and Secure Electricity System (SSES) and we are actively participating in government and industry led innovation projects to identify additional use cases for the smart metering network which could accelerate decarbonisation and drive social good (See page 42).

3.2.1. How we deliver

In operating these services, the DCC delivers a unique set of activities from engaging with a varied set of stakeholders, to designing, procuring, and securing new technologies, through to assuring and operating these as part of managing our network. The following sections outline our considerations and efforts to designing (Technology), procuring (Commercial), securing (Security) and assuring and operating Operations) our network. The following sections outline our considerations and efforts to Designing (Technology), procuring (Commercial), securing (Security), and assuring and operating (Operations) our network.

Technology

The Office of the CTO is accountable for the design decisions that will enable DCC's role as a key enabler of the digital backbone of the future energy system. It is the design authority, responsible for the integration and assurance of technology systems associated with our license.

Technology vision

Our vision is to ensure that the DCC network operates efficiently and securely at scale. We will leverage virtualised, secure and scalable infrastructure to ensure we meet our service obligations at scale. Our plan is to simplify the design of our infrastructure and where practical push functionality towards the edge of the network. As we evolve our solutions we will reduce complexity, deliver change faster and drive improved interoperability across end device's to ultimately drive efficiency for our customers and to offer the ability to support future policy that's delivers a net zero energy system.

We have adopted four key principles by which we will evolve our technology infrastructure:

- **Flexibility: The DCC network should be flexible to account for differing technology lifecycles, with configurable and scalable architecture as traffic on the system increases**
- **Enduring contested change model: Technology should be designed and built to allow for in life contestable change so that innovation or change to existing services is not limited to the incumbent supplier**
- **Standards based design: Technology designs should be standards based to avoid "Lock In" to proprietary technology with specific suppliers and intellectual property rights**
- **Near Zero downtime: The DCC network is crucial national infrastructure, and whilst nominated critical services, such as prepay vend, must be available and cannot have any sustained period of network disruption, all DCC services should have minimal downtime**

We will work towards this vision gradually recognising the need to balance ongoing service performance and continuity of service, with efforts to improve and future proof the network, taking advantage of new developments in infrastructure to get the benefits of server-less, multi-cloud solutions and evolution in the connectivity solution for the end devices.

Enabling our vision

We recognise we have further to go to truly set ourselves up for success, and are focusing on the following enablers to help realise the vision:

- **Strengthen our in-house capability and expertise: Focused on maturing critical system engineering expertise and building additional capability into system integration activities, before further enhancing our horizon scanning and technology foresight**
- **Refreshed operating model: Design and deliver a refreshed technology operating model to offer flexibility and cost effectiveness at scale**
- **Proactive industry engagement: We want to increase our collaboration and engagement with stakeholders from across industry, including standards bodies, to drive transparency, trust and long-term value for consumers**

Commercial

We rely on our external partners to deliver many of our mandated obligations, in a manner that delivers reliable network performance, ensures resilience, and provides value for money for customers, and ultimately end consumers.

Our commercial team leads on our procurement activities, contract management efforts and ongoing supplier relationship management with an overarching aim to drive commercial excellence with our external partners to digitise the energy system.

Commercial focus

As part of our commitment to deliver commercial excellence, to support our broader approach to disaggregate and ensure contestable change, and keep pace with the evolving technology landscape we are focused on:

- Improving and streamlining our core commercial processes to ensure robust yet pragmatic approaches to identifying, delivering, and sustaining value and business outcomes.
- Enhancing our digital capabilities to better support the execution of commercial strategies, improve end to end operational efficiency and enable proactive identification of risks and opportunities.
- Uplifting DCC's Supplier Relationship and Contract Management, embedding industry best practice into DCC's standard processes.
- Promoting a culture of continuous improvement across our supply base that goes beyond contracted levels of performance to support the wider DCC's delivery of service excellence and value for money.

Procurement approach

Central to the delivery of our overarching business outcomes, our ambition to drive commercial excellence and the broader activities supporting our Concept to Contract lifecycle is the transformation of our procurement approach.

Key principles of this include:

- Implementation of category management, with a shift to a set of strategic suppliers for each category
- Ensure enduring competition with contested in life change and no artificial lock-ins
- Automation of transactional spend where possible

Security

2022 served up several reminders as to why security remains a key focus for all businesses that operate in and around Critical National Infrastructure sectors, and the DCC are no exception to this. The war in Ukraine has intensified the requirement to ensure that energy security and resilience remains top of mind, and we proceed to explore a range of opportunities to ensure our cyber defences are robust and commensurate with the threat we face.

In 2022 good progress was made setting the DCC threat led security approach, which is now firmly established and has laid the foundations for us to build up sophisticated monitoring and management of the network in a changing landscape. Work also continues to mature the management of information within DCC with continuous improvement activity now under way for 2023 and 2024 to increase maturity in line with the level, scale, and complexity that the business is moving towards.

We have laid out five strategic objectives that build on our threat led approach, and are designed to increase the security of our supply chain through the enhancement of our cyber defence and further developing our compliance activities.

In 2023 we will:

1. Set revised integrated security baselines that take into account changing economic conditions and the developing threat landscape

2. Provide clear reporting on compliance with our baselines along with well-defined mitigations where required

3. Continue to integrate and centralise our cyber defences – creating a single pane of glass to monitor the security of Britain's digital energy system

4. Develop our cyber risk maturity and target an overall reduction in cyber security risk over the next 36 months.

5. Invest in our people to ensure we have the skills needed to secure the digital energy system of the future

Cyber Fusion Centre

With the progress made over the past two years the Security Operations Centre is now fully functional and operating on a 24/7 basis supporting the DCC internal estate and the Switching service. The next steps are to gradually bring security feeds in from all Service Providers to create the Cyber Fusion Centre based at Brabazon House covering all aspects of the Smart Meter ecosystem.

This will give a single view across SMETS1, SMETS2 and Switching. Ultimately this will create the capability for us to rapidly detect attacks at any point in the system, and more significantly those sophisticated attacks that are predicated on parallel entry points in different parts of the system.

The Cyber Fusion Centre is also being accredited to the sought after 'CREST' standard so it will be formally certified to be capable to meet with the size and types of challenge that lie ahead within our industry sector.

Security (cont'd)

Supply chain visibility

The Cyber Fusion Centre, coupled with initiatives to allow for easier portability of core services will place the DCC network at an enhanced level of security and in line with NCSC recommendations. This is vitally important as the threat landscape moves increasingly towards supply chain attacks as being the preferred route to compromise large scale systems.

Summary

The key to maintaining the speed of our progress will no doubt reside in a combination of Machine Learning & Artificial Intelligence that is agile enough to respond to emerging threats, whilst ensuring we have the right skills and best people deployed across our security teams. A combination of identification of threats, mitigation and response follows the best practice within the security community and will position the system well for the next decade.

Operations

We have shifted from a programme focused organisation tasked with building the smart metering network, to operating and maintaining one of the largest networks in Great Britain. Our operations team are at the core of this, ensuring the network continues to run smoothly as we scale, from the timely supply of Comms Hubs to 24/7 monitoring in our Technical Operations Centre (TOC), to partnering with our suppliers to drive continuous improvement for the benefit of our customers to assuring that any new change lands safely.

Areas of focus:

To deliver this, Operations are focused on three key areas:

1. Reliable, right first-time levels of service
   - We're continuing to work with our suppliers to ensure we deliver reliable, expected levels of performance, working together to identify where incidents are impacting our levels of service
   - We're fully embedded within our programme delivery teams to ensure our key programmes, e.g. 4G Comms Hubs are being designed with in life operations front of mind and we have the right acceptance into service governance and controls in place to enable effective Go Live's
   - Finish the job on SMETS 1 migrations, transitioning the remaining meters to a reliable service ahead of switch out to 4G
   -

2. Ensuring our people, processes and technology reflect the criticality of our services
   - To support the continued growth and complexity of the network, we're committed to delivering our Next Generation TOC and Service Centre. This will be delivered in phases as part of our DSMS programme
   - As our network has grown, the volume and complexity of data has increased significantly and as a result. We are developing a data strategy to evolve the technology supporting the delivery of data internally within DCC and externally to industry. This will improve the overall reporting, insight and intelligence and allow us to enhance our data visualisation and self-serve capability, ultimately improving our customer experience.
   - We want our Operations team to be a great place to work, for and with. In line with our broader people strategy, we're putting in place the right coaching, training and support to ensure we continue to deliver a quality experience, for our people and our customers
3. Driving collaborative customer and partner outcomes
   - Our suppliers are critical to our success, without them we couldn't do what we do. Respect, trust, and collaboration need to sit at the heart of our supplier relationships. In line with our Commercial strategy we seeking to embed greater partner relationship management to build that mutual understanding and collaboration.
   - The energy and cost of living crisis has highlighted the support provided to vulnerable customers, and in particular those on prepayment meters. We're adopting a 'Never fail a pre-pay' mindset to drive focus and support to prepayment messages

Lifecycle management approach

We manage any changes to existing services and the implementation of new services provided to our customers through our lifecycle management approach. This provides an ongoing process to ensure that services are managed proactively and efficiently through the course of their lifecycle, with clear accountability at each stage. It seeks to support our shift to increased in life management and builds on lessons learnt from activity such as technical refresh.
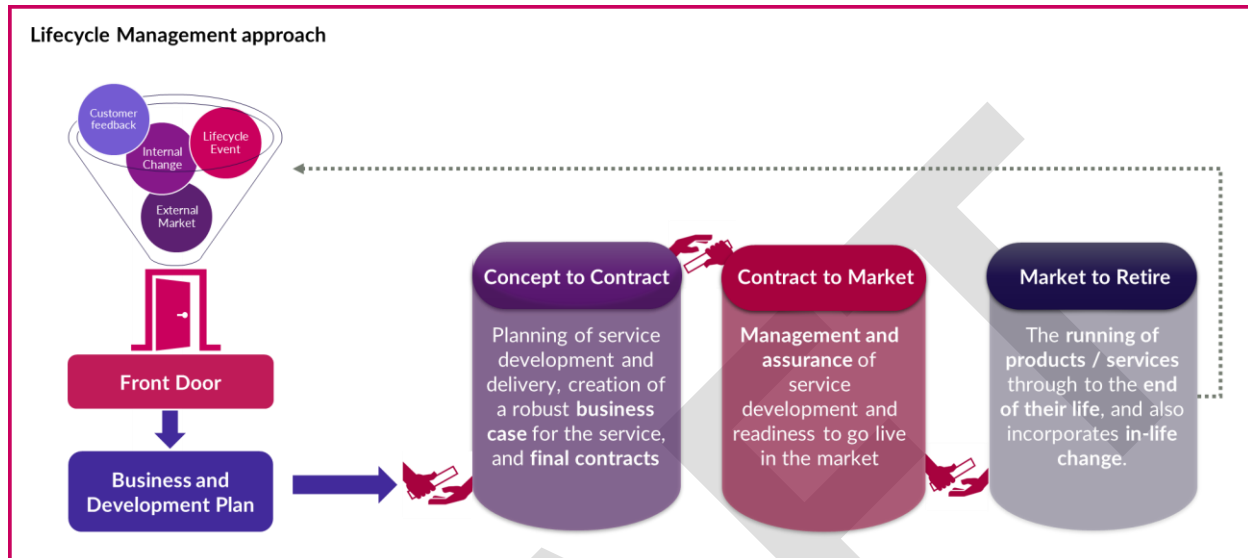
New sources of change, such as instruction from Government or our customers will funnel through the 'Front Door' that will act as a single point for change initiation. This enables enhanced foresight on future activity and ensures delivery impacts and risks can be flagged at the earliest opportunity.

At the Concept to Contract stage, for programmes and procurements that cover core service provision or where the contract value is greater than £10m, the DCC follows the HM Treasury Green Book Business Case approach. This enables us to articulate and demonstrate how the change will meet customers' needs and provide value for money.

Project management methodology

Following feedback from our customers and the findings of an independent assessment of DCC's programme delivery capabilities, DCC intends to adopt PRINCE2 as our standard project management method.

This is designed to support our lifecycle management approach, notably the Concept to Contract and Contract to Market stages, with an internationally recognised, process-based method helping to ensure we operate as efficiently as possible. In addition, the adoption of PRINCE2 will support a common language across our customer and supplier base, reducing unnecessary misalignment, while also helping to attract and retain staff through the support of internationally recognised certifications. Combined we believe this will help us to deliver an improved experience for both our customers and our people.

We intend to work with a recognised delivery partner to support us on this journey and ensure the handover from our Change Delivery Methodology (CDM) is as seamless as possible. Subject to detailed planning, we expect the transition to be complete by Spring 2024. We recognise there has been discussion on the use of alternative project management methodologies in the past and are confident that while CDM was the right approach for the early days as an organisation, PRINCE2 is now the right choice to support us on the next stage of our journey as we scale and shift to a more stable operating business.

As the activity moves from Contract to Market, to Market to Retire, and transitions into the live environment, our Service Assurance process ensures a smooth go-live that protects customer operations. We do this by controlling all change through quality gates into the live service environment – ensuring service risks are identified and mitigated, key quality standards have been met and we continue to deliver reliable levels of performance.

To support our efficiency efforts, a process improvement team is being mobilised to gradually improve and mature our core processes over the next 12-18 months. As we develop and refine these further, we will engage with stakeholders to ensure they can input where appropriate.

Lifecycle management supports appropriate stakeholder engagement throughout the process. The DCC operates in a complex and changing stakeholder landscape. We want to be recognised as a trusted partner - by our customers, our regulator, our suppliers, and other ecosystem participants. Therefore, engaging and collaborating with our stakeholders is fundamental to the way we operate, with regular engagement from across the business.

We recognise that as a licenced monopoly we have a duty to be an economic, efficient, and responsible operator, delivering value for money for our customers, because this ultimately delivers value for money for end consumers. We're committed to continuing to seek opportunities to enhance our cost efficiency.

> **Cost Benchmarking**
>
> DCC is maturing from a business focused largely on programmes with incremental, transactional value for money decisions, into a stable operating business with a longer-term view of its cost base. To proactively drive further efficiency and demonstrate value for money, we have undertaken a cost benchmarking exercise to provide greater visibility across our cost base and identify mechanisms for further efficiency. This has been made possible by the improved transparency of our cost base delivered through the Business Accuracy programme.
>
> Acknowledging DCC's unique context and operational landscape requiring specific skills and managing legacy contracts & legacy technology, many of the initial outcomes from this exercise were expected, with significant opportunity identified to drive further efficiencies.
>
> A number of activities are currently underway to address known areas and we are identifying further differentials in our cost base that can identify additional short-term opportunities but will largely inform mid-to-long term efficiency targets.

3.2.2. Our capabilities

Since DCC was established, we have built an organisation capable of delivering complex, technology enabled change programmes. As we have evolved, and the roll-out has progressed, we are shifting to a more stable operating business, capable of ensuring reliable network performance, 24/7, while maintaining the security and resilience of a vitally important element to national infrastructure.

Our core capabilities as an organisation include:

Technical and service operations: We proactively monitor our network on a 24/7 basis using best practice to maintain availability of our systems, while also providing operational insights to our customers, the Government, and the regulator

Security operations: We have a built a 24/7 Security Operations Centre (SOC), which actively monitors security threats and operates to NCSC standards

Procurement and contract management: We have significant expertise in designing, procuring, and managing complex, high value contracts

Device management: We have had to develop highly technical processes and systems to support thousands of device model combinations in use across the industry

Design, programme delivery, test management and assurance: We have designed and built one of the most complex pieces of digital infrastructure in the world

3.2.3. Measuring performance

DCC's performance and financial incentives are assessed by Ofgem through our annual price control submission and the Operational Performance Regime (OPR). The three areas of focus for the OPR are:

- System performance
- Customer engagement
- Contract management

3.3. Section 5: Strategic Outcomes

Consultation Questions

Following the Early Engagement session in February, we have refined and consolidated the outcomes we are seeking to deliver and have organised our activities according to these outcomes. This is a shift from previous years, where these activities were organised according to our five strategic priorities. This has been undertaken to provide a better understanding of the rationale for our activities, but would welcome feedback on this as part of this consultation.

We are seeking your views on:

1. Do these outcomes reflect your understanding of DCC's key outcomes and objectives?
2. Are there additional outcomes you believe are not captured here? If yes, please set out what they are.
3. Do you believe organising our activities according to outcomes provides you with a better understanding on why DCC undertakes the activity it does?
4. Are there specific activities where the information provided is not clear, or where further information would be helpful for your decision making? If yes, please outline what information is required and why it would be helpful.

In line with a more outcome focused approach across the organisation, we have set out to articulate the business outcomes we are seeking to achieve, and the associated key programmes and initiatives that fall within each one. Inevitably, many of the activities we undertake deliver multiple business outcomes, but this approach seeks to provide a more comprehensive explanation of why we do what we do

These outcomes are:

- **Deliver reliable network performance, ensuring security and resilience**

- **Operate responsibly and efficiently, delivering value for money**

- **Provide a quality experience for our customers and our people**

- **Re-use the network for public good**

3.3.1. Outcome 1: Deliver reliable network performance, ensuring security and resilience

We have a licence obligation to ensure development, operation, and maintenance of an efficient and secure smart metering system.

It is therefore important to us that we continue to deliver a stable, reliable, and secure smart metering platform. We recognise that we are responsible for the maintenance and operation of this unique network which at scale will support secure messaging across 100 million devices in 30 million homes.

As a result of this, we want to ensure that the network remains fit for purpose and can respond to change and future demands, given the fast-changing ecosystem in which we operate. Resilience of the network is key here – we are ready to accommodate growing demand through to 2030 and beyond.

At the same time, we place security at the centre of what we do. Our network is built around best-in-class security so that we can ensure the network responds to evolving security threats and that we have the right security controls in place.

The following section covers our BAU activity and key programmes which enable us to deliver this outcome.

Continuously improving our in-life operations

Products and Logistics

Our Products and Logistics team works closely with energy suppliers and the supply chain to ensure that communication hub deliveries are maintained. We are committed to ensure we offer a leading network performance and service delivery.

We do this by providing an enhanced understanding of customer demand, improving continuity of supply, and mitigating against changes in supply chain lead times. As we transition to 4G technology, we will continue to work with customers to identify future enduring changes to ordering and delivery rules. This is an area of strategic focus for DCC, with customer engagement underway on the proposed transition approach that aims to transition as swiftly as possible from 4G go-live, ensuring optimum fluidity of communications hubs supply until that point.

We will continue collaborating and sharing information with customers to help investigate communications hubs which have failed to upgrade, or which reside older firmware variants. This will support improved network performance and service delivery, while also reducing costs for DCC and the industry.

Service Assurance

The DCC network is becoming larger and more complex. We want to ensure new services are fit for go-live and   we do this by:

- Controlling all change through quality gates into the live service environment – ensuring service risks are identified and mitigated and that key quality standards have been met

- Ensuring we 'design for service' at the beginning of major change programmes

- Managing the professional transition of service into live

Specifically in 2023/24 we are:

- Transforming Service Assurance ensuring it has the the operating model, capabilities, and processes to protect customer service and DCC Operations as we move to scale

- Actively managing the transition of 'Enduring Change of Supplier' to live – this will see the rotation of certificates in millions of meters – ensuring our network remains safe

- Designing and shaping the Service Requirements for the DSP programme

- Designing the service model for disaggregated Service Management – key for the success of the 4G CH&N programme

Supplier Relationship Management

Our overarching objective is to deliver service stability, reduce failure, drive value, and ensure 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. Some key actions that will allow us to achieve these objectives are:

- Achieving a step change from focusing on contractual Key Performance Indicator (KPI) delivery to focusing on customer outcomes

- Development and delivery of reporting frameworks that allow DCC and supporting suppliers and partners to see and understand the role they play in delivering these customer outcomes

- Engaging earlier in the development of programmes to share experience-based solutions for shaping future contractual frameworks

Network Capacity Planning

The DCC continuously assesses intra-day and inter-day demand across the network to predict and prevent capacity constraints and works with suppliers to ensure that the right capacity is available at the right place and at the right time for DCC users. We work across the supply chain to ensure capacity related interventions are optimised and continue to deliver value-for-money to industry and consumers.

DCC has observed an increase in emerging use cases for smart metering related data and across user groups; we are mindful of the emerging DNO needs, as well as emerging consumer-centric innovations from both energy suppliers and other users which are forecast to drive a significant uplift in demand

This growth will place a greater emphasis on effective demand management and collaboration with DCC customer base, to continuously assess and develop the intelligence needed to characterise new use cases and their impact on future network capacity. DCC continues to work closely with its suppliers to ensure capacity is available where required and to optimise the traffic profile across the network in the medium to long term and to mitigate intra-day capacity constraints proactively.

We continue to work with stakeholder groups and suppliers on both demand and capacity interventions, including the augmentation of capacity channels in the North; network traffic management initiatives including the optimisation of the intra-day network reads and prioritisation of traffic to specific users, and developing the opportunity to reduce the high volume of duplicate data reads through our proposed 'Secure, publish and subscribe' solution.

The cellular networks are currently undergoing a technology evolution. The publication of the 2G/3G sunsetting timeline has necessitated a full assessment of the impact with our suppliers, with whom we are striving to secure assurance and as seamless a transition as possible, whilst we develop the 4G LTE technology in the central and southern regions.

It is DCC's intent to increase and strengthen the cadence of customer engagement on demand and capacity needs to develop improved and timely customer insights. Robust customer, technical and operational engagement will ensure we continue to deliver the future and evolving needs of industry. It is imperative that we do this to build a consensus on the projected future demand of the network.

KEY PROGRAMMES:

SMETS 1 Enrolment and Adoption

Why are we doing this and what benefits will this programme deliver?
This is enabling the migration of millions of 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. The objective is to support competition in the retail market and allow consumers to enjoy the full benefits of products and services which depend on smart metering. Migration also extends the operating life of first-generation metering assets, contributing to reduced waste in electronic goods and improved sustainability.

As part of this programme, key workstreams and the benefits they deliver are covered below:

SMETS1 Enhancements

While the Final Operating Capability (FOC) was delivered in February 2021, there have been ongoing operational deployments as part of a SMETS1 Enhancements workstream. The objective of this programme is to stabilise the FOC platform, maximise the total number of migrations for each cohort to enable the subsequent close-down of Requesting Parties and deliver a Device Swap Out service in FOC.

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

Migration Performance
As of February 2023, more than ten million SMETS1 meters across our three cohorts have been successfully enrolled on the DCC network. We have prioritised migrating the dormant meters we are able to identify and enrol onto the network. The migration of active SMETS1 meters depends upon energy suppliers offering the meter to the DCC and we are continuing to work with customers to ensure remaining meters are migrated.

Enrolled Meters	Initial Operating Capability (IOC)	Middle Operating Capability (MOC)	Final Operating Capability (FOC)	Total
Active	2,312,460	3,184,039	1,733,589	7,230,088
Dormant	1,058,288	1,461,061	1,461,621	3,980,970
Total	3,370,748	4,645,100	3,195,210	11,211,058

Figures accurate as of 19 April 20232

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, the Department, and Ofgem to make sure this happens.

Why is it important to DCC?
DCC has a regulatory obligation to provide this service in an efficient and economical manner and to take all reasonable steps to progress migrations as quickly as possible. It is also DCC's stated and accepted purpose for people in Great Britain to stay connected and live smarter, greener lives, and the SMETS1 migration programme is a centrepiece of achieving this.

Additionally, DCC has an ongoing obligation to assess SMETS1 Installations presently blocked for migration and unblock where possible. If this service is not provided, then Energy Suppliers will be required to visit a significant number of premises to replace working SMETS1 devices with SMETS2+ devices incurring material additional costs.

What's next?
We are preparing for the closure of the DCC's Migration Service and the transition to in-life operations. Energy suppliers have a licence enrolment obligation to have taken all reasonable steps to enrol SMETS1 meters onto the DCC network by 31 December 2022 or within 12 months of the meter becoming eligible. Separately they have a complementary replacement obligation to replace any un-enrolled SMETS1 devices with SMETS2 devices by 31 December 2023

Great Britain Companion Specification (GBCS)

Why are we doing this and what benefits will this programme deliver?
The GBCS sets out data security and other operational standards for communications hubs. The Department continually reviews GBCS standards to ensure that data security is maintained in line with new and emerging threats.

Why is it important to DCC?
The DCC is mandated by the Department to develop, test, and deploy new firmware (FW) to all operational communications hubs in line with each update of GBCS. This is important because these changes ensure that the communications between Smart Metering Devices in consumers premises and DCC are effective and enables continuity of the service. Furthermore, the changes include Issue Resolution Proposals (IRPs) which are requirements to fix problems identified by SEC parties with Communication Hubs.

What's next?
Currently we are working with the CSPs to deliver the GBCS version 3.2 and version 4.1 compliant Communication Hubs. The delivery timetable for 2023 and 2024 is shown below:

Timeline	Status
GBCS 3.2 FW North Dual Band and Single Band CH	CPA has been successfully achieved and mass OTA is planned from March 2023.
GBCS 3.2 FW Central and South Single Band CH	CPA has been successfully achieved and mass OTA is planned from April 2023.
GBCS 4.1 FW North Dual Band and Single Band CH	Currently in testing and mass OTA is planned for November 2023.
GBCS 4.1 FW Central and South Dual and Single Band CH	Currently in testing and mass OTA is planned for Toshiba CHs in September 2023 and WNC CHs in February 2024.

Enduring Change of Supplier (ECoS)

Why are we doing this and what benefits will this programme deliver?
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 change of the security certificates on smart devices (primarily meters) that identify the responsible supplier. This is achieved through the ECoS programme. In August 2019, the DCC was mandated by the Department to deliver an ECoS solution and the corresponding Service Provider procurement process was concluded in 2021

Why is it important to DCC?
ECoS is a Mandated Programme in accordance with Condition 13A.1 of the DCC's Smart Communication Licence. The DCC is directed to establish efficient, economical, coordinated, and enduring arrangements for the changing of Device Security Credentials on or following completion of a Supplier Transfer in respect of premises at which there is a Smart Metering System.

What's next?

1. The Programme is currently completing System Integration Testing, End of Cycle testing. User Integration Testing is scheduled to commence on the 15th May and Go live on the 29th June 2023
2. The Programme is currently on track to meet the agreed Joint Industry Milestones.

Technical Refresh Programme

Why are we doing this and what benefits will this programme deliver?
The DCC architecture has been in operation for over seven years, its scale and complexity has grown significantly, and some key components are now approaching End of Vendor Support. DCC needs to maintain and refresh its key architecture components so that the agreed levels of service and security are provided.

The successful delivery of the Technical Refresh programme will support continuity of the DCC service for our industry users and their consumers, 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.

Why is it important to DCC?
The DCC must maintain an efficient, coordinated, and secure system. Operating and maintaining the core network while adding new functionality and undertaking proactive essential maintenance will become increasingly challenging as technology evolves so it is important that we make targeted interventions in the infrastructure to ensure it does not rely on unsupported hardware or software.

What's next?
DCC intends to continue with the improvements made in 2022 and will provide full justification and visibility of planned outage schedule to TABASC and SEC Operations Group, together with regular updates on progress this year.

Faster and more reliable switching

The delivery of faster, more reliable switching was a significant milestone in the transformation of the retail energy market. It delivered a foundation for increased competition and innovation leading to improved consumer value, experience and engagement with the market. As Ofgem's key delivery partner, the DCC designed and built the Central Switching Service (CSS), which has been in operation since July 2022. This service provides the capability for energy consumers to switch energy supplier on a next-working day basis. The DCC managed the consolidation of 28 existing and new systems and the integration of around 200 licenced parties into the CSS.

Since the CSS went live in July 2022 our focus has been on ensuring the stability and resilience of the service. The consistent stability of the new systems and processes within CSS gave Ofgem the confidence to close the Switching Programme in late 2022, with governance oversight moving to the Retail Energy Code (REC).

Customers shaping our enduring approach

To ensure that the DCC continues to meet its obligations within the REC and help improve switching reliability, DCC has consulted on the approach it intends to adopt for the Regulatory Year commencing April 2023. This approach focuses on improving the quality of address data it has received which cannot be found on the standard address list from Ordnance Survey (OS). The Ordnance Survey address data is a standard set of address data that covers Great Britain. The OS data has been used in order to ensure there was a comprehensive and consistent set of addresses being used for switching purposes. Customers were actively encouraged to participate in that consultation, and this will help shape the address improvement activities within the coming Regulatory Year.

Market-Wide Half-Hourly Settlement (MHHS)

Why are we doing this and what benefits will this programme deliver?

Electricity settlements and trading works using half-hourly interval data today. However, most domestic and smaller non-domestic meter points are settled on a non-half hourly basis. MHHS will mandate energy suppliers to settle all consumers with capable meters on a half-hourly basis. 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 cheap or to support protecting the electricity networks. New and innovative tariff options will help to increase competition for the benefit of consumers and support the Government's ambitions for decarbonisation.

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 the DCC is a party.

Why is it important to DCC?

DCC is a key participant of the industry-wide MHHS Programme and works closely with Elexon as the programme owner/manager and Ofgem as the overall sponsor. DCC is required under licence to comply with the overarching MHHS Governance Framework and cooperate with other participants to implement MHHS without undue delay. In doing so, DCC can support market benefits and innovation that will ultimately reduce energy costs thus providing more benefits for the end consumer.

What's next?

The MHHS SEC Modification MP162 has been approved by Ofgem to introduce a new DCC User (Meter Data Retrieval Agents - MDRA) and Party to the SEC who can retrieve the data on behalf of electricity suppliers for settlement purposes. Additionally, DCC is working with our contracted service providers to fulfil the MHHS requirement of additional capacity to accommodate over 17,000 half-hourly readings per year per meter. The DCC's MHHS required changes are planned to go-live in the June 2024 SEC Release. This supports the wider programme timings, with migration of consumers to half-hourly settlements due to start in 2024 and complete in October 2025 (subject to MHHS re-plan consultations)

Data Service Provider (DSP) Data Systems

Why are we doing this and what benefits will this programme deliver?

The present DSP contract sets out the delivery of several systems and services that sit at the core of our smart metering infrastructure. These data services connect DCC Users (DNOs, energy suppliers and others) to devices at their consumers' premises. This flow of messages between consumer premise and DCC User enables critical functions to take place such as Pre-Payment meter top-up and allows for the collection of data needed in energy supplier billing/settlement or for other industry-wide innovative purposes.

The DSP Data Systems Programme will ensure continuity of service beyond the lifetime of the existing contract, which is due to expire on 31 October 2024. We need to ensure any change is managed in a way that minimises risk to continuity of the service and the security of smart metering. In doing so, the programme will provide the following benefits:

- **Ensure continuity of service**
- **Deliver value for money and best meet customer needs**
- **Reduced service downtime and outages**
- **Faster delivery of change including reduced time for testing**
- **Lower cost of change including reduced cost for testing**
- **Service improvement including improved efficiency diagnostics and improved customer data access**
- **Reduced cost to serve including lower transaction and certification costs**
- **Ability to flex/cope with increased forecasted demand**
- **Reduced Intellectual Property Rights (IPR) risk in core systems and the adoption of open system standards that enhance system flexibility and capability**
- **Future-proofed for the needs of the industry**

Why is it important to DCC?

As a regulated business, the DCC is required to ensure the maintenance and continuity of this critical service, whilst securing value for money for our customers. The DSP Programme will ensure this continuity with a service that meet the needs of our customers, for example by improving the pace and cost of delivering industry change. The use of more flexible technology will also lower the cost of operation for our customers and enable future re-use of the network for new services.

What's next?

Following the HM Treasury Green Book Business Case approach for the Programme, the DCC is required to obtain confirmation to proceed from the Department ahead of certain procurements that cover core service provision. DESNZ will provide confirmation to proceed in relation to the following milestones in the plan:

- **Outline Business Case (ahead of commencing commercial negotiations): Forecast date June-23**
- **Full Business Case (ahead of DCC signing contracts and commencing development): Forecast Date June-24**
- **Gate completion is targeted for July-24**

Communications Hubs and Networks (CH&N)

Why are we doing this and what benefits will this programme deliver?

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 signalled its intention to retire all 2G WAN services in the UK by 2033, with 3G sunsetting occurring from 2023. In response to these events, the Communications Hubs & Networks Programme has procured a new Long-Term Evolution (LTE) 4G connected communications hub service that will provide secure, flexible connectivity and replace current 2G and 3G services.

The programme will ensure that the 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.

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**

Why is it important to DCC?

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. Whilst we cannot control

the speed of broader technological evolution, including sunsetting of 2G and 3G, we are committed to delivering a high-quality smart meter network to support our customers.

The DCC currently delivers smart metering services over 2G and 3G to enable both SMETS1 and SMETS2 hardware. 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. This will allow them to access the newer 4G network. The CH&N Programme has entered into commercial agreements with several vendors to provide new communication hubs and supporting technology which will collectively provide a 4G smart metering solution.

An efficient transition to 4G communications hubs while maintaining a smooth and continuous roll-out of smart meters is important to the industry and to us. It will also be desirable to minimise the risk of a surplus of 3G communications hubs and to avoid complexity for installers. These considerations require input from across the industry and we are currently engaging with stakeholders to develop a new Communications Hub Transition plan.

Overall, the programme allows DCC to deliver against its General Licence Objectives through the delivery of an economical, efficient, and future proof service for smart metering communication services that will allow service continuity over the long-term.

What's next?
We are currently designing and building the new solution and will start testing during 2023. We anticipate go-live for pilots using the new communications hubs in Q3 2024 and supply at volume of the new communications hubs in Q2 2025. We will be engaging closely with customers and the Department for Energy, Security and Net Zero throughout this period to ensure that the requirements of all parties are met.

PKI Enduring Services (PKI-E)

Why are we doing this and what benefits will this programme deliver?
The Trusted Service Provider (TSP) Public Key Infrastructures (PKIs) provided by BT, provides cryptographic services to the Smart Metering infrastructure. TSP is currently running a "tactical" solution that was deployed during September 2022 and will run until April 2025 with the option to extend a further year to 2026. The PKI-E (*PKI Enduring*) Programme has been launched to ensure that at that point a "strategic" solution will be available to take over on an enduring basis. PKI-E will also rationalise the approach to the major PKIs operated by DCC, according to the direction set by the DCC Strategy.

The new solution will be delivered with minimal impacts to our customers and DCC's live services and programmes, whilst rationalising the PKI ecosystem and providing uniformity to the management layer of the PKI services where possible.

In establishing the programme, the DCC will mitigate the end-of-life risk but will also develop an enduring public key infrastructure platform that will provide the required levels of security, flexibility, and cost-efficiency to support both core services and future enhanced DCC capabilities. The new services will be designed to respond to emerging security needs over a ten-to-fifteen-year time horizon.

Why is it important to DCC?
We have a licence objective to maintain a "secure system for the provision of Mandatory Business Services". TSP provides the fundamental public key infrastructures for the UK smart metering infrastructure and ensures that the Smart Metering Total System can operate with the required level of security and efficiency.

> **What's next?**
> DCC Security has commissioned an independent strategic review of the options available in the market. An RFI has been issued in February 2023 and responses are currently under review. The outcome of the independent review and the RFI results will support DCC in the next phases of procurement for the PKI-E programme.

Scaling and Optimisation

Why are we doing this and what benefits will this programme deliver?

The purpose of this activity is to ensure that the smart meter networks have the capacity to manage the full scheduled roll-out of smart meters, addressing a material gap between the contracted design and the evolved requirements (larger message sizes, increased volumes, and higher levels of message concurrency). The project is covering specific identified gaps in the CSP. North region, delivering a Business Case covering solutions agreed with Arqiva and the Department for Energy Security and Net Zero (the Department).

Why is it important to DCC?

Ensuring that the networks have the capacity to manage the projected network traffic volume is essential to enable DCC to meet its licence and obligations under the SEC, whilst maintaining a critical service for our customers and end consumers.

This activity will identify the work that is required to ensure network scalability, deliver approved solutions, and support Commercial in delivering supplier contract extensions which underpin the service provision.

What's next?
- Re-drafting of the Strategic Outline Case
- Completion of Full Impact Assessments for the agreed solutions
- A timeline, agreed with the Department and Arqiva, of the specific future critical capacity points, with remedial solutions mapped to these

Network Traffic Management (NTM)

Why are we doing this and what benefits will this programme deliver?

Service Request Volumes (SRV) are forecast to increase significantly over future years, with impacts happening from 2023. This driven by a number of areas including: -

- Continuation of SMART meter rollout
- Completing the migration of SMETS1 devices onto the DCC network (and subsequent swap-out to SMETS2)
- Increases to number of SEC parties requesting metering data e.g. DNO's, Other Users
- SEC parties given access to metering data by consumers
- Improved services like Central Switching Service, and new SECMods.

In order to help support the management of this demand, changes are needed in the way traffic is managed across the network both between the DSP and Users (Gamm links), and between the DSP and the Communications Hubs (The Smart Metering Wide Area Network). It is DCC's intent to utilise the existing capacity of the network wherever possible and avoid the incremental cost associated with increasing capacity of the network.

Why is it important to DCC?

DCC needs to be able to manage the demand across its network components in a cost-efficient manner, that also supports operational performance service levels being maintained.

What's next?
- Plans are in train to deliver Northbound Response Delivery (NTM-NRD), that allows users to prioritise traffic they receive from DSP e.g. if they have constrained Gamma link capacity – Forecast July 2024
- Northbound Prioritisation (NTM-NP-A) initiative is intended to avoid traffic congestion and this is planned to be delivered via the MHHS Programme – Forecast October 2023
- Further opportunities are being explored related to Service Request Management and Prioritisation, Alerts Management and Optimisation of Intraday Demand to further enhance the delivery of demand in an optimal fashion

---

Secure Publish Subscribe (SPS)

Why are we doing this and what benefits will this programme deliver?

SRV volumes are forecast to increase significantly over future years. This is driven through a combination of an increase in the installed base of Smart Meters, and the concurrent development of new use cases driving increased SRV volume for the same SRV Data across SEC parties.

There are SRV requests that occur where the same response is carried multiple times in the same day, week, or month, adding potential contention and congestion to the system. These requests may be made either via the scheduled read approach or on-demand.

"Secure, Publish and Subscribe" is an option the DCC is investigating which will reduce the volume of duplicate SRV reads traversing the network over the same 24-hour period. The proposed solution is expected to hold data for 25 hours in cache and serve three to four SRV requests from data held in cache and avoid the duplicate SRV's requests over WAN.

Benefits of implementing SPS

- Reduces the transactions over WAN Network estimated circa 2.5 times by 2030

- Reduction of 2.5 times transaction traffic on WAN network evades an immediate and future need for expensive scale-out of physical CSPs/S1SPs infrastructure

- Minimal impact to the service users

- Mitigate un-forecast growth of duplicate reads which offers a protection mechanism to the core data reads for Smart Metering and mitigates localised congestion for aspects of the install base

- An enabler to support the growth of future innovative meter data-based use-cases and especially for specific DNO use-cases without incurring additional WAN cost driven by increased capacity needs

Why is it important to DCC?

DCC needs to be able to manage the demand across its network components in a cost-efficient manner, and at the same time ensure operational performance service levels are being maintained. Avoiding duplicate traffic via this method is an extremely cost-efficient approach which has already been adopted by several industries such as Broadband network providers in the UK.

In addition, as the solution reduces contention over the network, multiple attempts (retries) are likely to be reduced and therefore the success rate is likely to increase and degradation reduced. This is particularly relevant to time critical and priority messages.

What's next?
We are still in early stages of investigating this option and will continue to engage with the SEC Sub-Committee and the Department to formalise any next steps.

Continuity of Service

Why are we doing this and what benefits will this programme deliver?
Given the challenges associated with performance in the North, and potential risks associated with 3G and 2G sunsetting, DCC is delivering a number of programmes to mitigate these, including 4G CH&N (see page 26) and Scaling & Optimisation (see page 28). DCC has also initiated several additional mitigatory measures through the NTM and SPS programmes (see page 29).

However, there remains a possibility that the above programmes are unable to fully mitigate risk to an acceptable tolerance. Therefore, the DCC is exploring alternative options to help mitigate the residual risk. This is likely to include the possibility of constrained usage, faster deployment of 4G and alternative WAN technology.

This exploration remains at an early stage and is subject to progression through the business case process, but principal benefits of this is the mitigation of residual risk to continuity of service.

Why is it important to DCC?
The DCC has a licence obligation to ensure the continued operation of the network, in a manner that is secure and delivers value for money. Despite a number of mitigating activities underway, there remains a possibility of residual risk to continuity of service. Therefore, we consider it prudent at this stage to explore how further mitigatory actions could be deployed to ensure continued reliable network performance for our customers.

What's next?
DCC is currently understanding the viability of additional options. If the current programmes underway and contractual negotiations with CSP providers are unable to fully address risks to continuity of service, the DCC will progress with these options through the agreed business case process.

Smart Energy Code (SEC) and Retail Energy Code (REC) - In-Life Change

The DCC operates under two industry codes – the Smart Energy Code (SEC) and Retail Energy Code (REC). These govern 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 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 and REC Modifications are industry-wide requests for changes to our services and we are required to deliver two SEC System Releases and two REC System Releases each year in June and November.

Following the successful Go Live of the Central Switching Service we are planning on delivering the first REC Release in June 2023.

SEC Releases Delivered in 2022 and forward look

The June and November 2022 SEC releases were delivered on time, at the agreed cost, and with no defects after Go-Live. In a similar fashion, we are on track for delivering the June 2023 SEC and REC Releases, as are preparations for the November 2023 SEC and REC Releases.

Furthermore, Market-Wide Half Hourly Settlement (MHHS) changes have been approved by Ofgem and are aligned to be delivered in the June 2024 SEC Release.

In the coming year, we are carrying out benchmarking to review the efficiency of delivering the SEC Releases, including GBCS changes, for the purpose of demonstrating year on year efficiencies but also to identify further improvements to our delivery methodology.

Improving processes and governance

There are several improvements planned which will increase the pace of delivery and provide cost efficiencies, for example, the introduction of the Test Automation Framework.

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 which allowed us to resolve emerging issues (for more information see Market-Wide Half-Hourly Settlement in section xx). We will apply the same successful collaboration approach we have used on the MHHS solution design to future SEC and REC Releases.

3.4. Outcome 2: Operate responsibly and efficiently, delivering value for money

The DCC is a unique organisation, operating at the heart of a changing energy landscape to enable a fundamental shift in energy usage and engagement on the path to net zero. We take this mandate very seriously, striving to continuously improve how we operate for the benefit of our customers and ultimately end consumers.

At scale, the smart metering network will run in > 53m meters in over 30m homes. As its operator, this means we need to make prudent, responsible decisions on what is best for the network. It means we need to operate efficiently and systemically if we are to deliver continued and reliable performance. It means we need to be as economical as possible to ensure we deliver value for money. We recognise this responsibility is even more important at a time when energy bills are high and cost of living pressures continue to impact household spending. As we mature into a more stable, stable operating business with a longer-term view of its cost base we will be able to take a more proactive approach to cost efficiency.

Ultimately, as with many organisations, we believe it is important to embody our purpose, and ensure the decisions we make internally reflect the impact we strive to make and the value we seek to deliver.

The following section covers our key programmes and BAU activity which enables us to deliver this outcome.

Business Accuracy Programme

Why are we doing this and what benefits will this programme deliver?

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 at its highest since DCC was established. We have quadrupled the amount of programme activity and we are managing a growing installed smart meter base.

As a result, the Business Accuracy Programme was established in 2022, with implementation spanning across 2023. The programme ensures that DCC has a core set of processes, systems and data which can support this level of complexity and provide integrated business plans and performance reports to track progress.

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

- Improved transparency of reporting - Improves our ability to respond to customer information needs while providing an improved framework for reporting and monitoring business performance
- Accuracy of delivery and costs through better ability to provide resource at the right time, quality, and cost
- Performance metrics - enable us to focus on continuous improvement and build benchmarks that can identify efficiency opportunities and improve delivery of value for money for our customers
- Better governance of activities – quicker and more agile processes which span the organisation
- Increased staff engagement - This allows teams to access data more effectively and efficiently, provides clarity of process, clear understanding of roles and responsibilities, improves collaboration and the ability to manage workloads proactively

Since initiating the Business Accuracy Programme, we have already delivered many of its core objectives. These include an improved business planning framework, transparency of reporting, documentation of core processes and development of a 'Change Roadmap' and 'Front Door' to create a single point of entry for new programmes.

Why is it important to DCC?

Given the significant increase in scope of work, we need to ensure we remain fit for purpose as the work we are tasked with grows and customer needs evolve. The Business Accuracy Programme allows us as an organisation to adapt and run an effective business through better reporting, accurate delivery, performance metrics to make relevant efficiencies, and an engaged workforce. The Business Accuracy Programme has provided the foundation for our shift from a more 'programme' centric operation into a mature, well-planned, and governed organisation.

What's next?

- The implementation of the new Business Planning tool to complement the new Business Planning process
- The new Commercial Lifecycle Management Tool - managing the 3rd party engagement process through procurement and contract management
- The programme will deploy its final deliverables in FY 23/24

Test Automation Framework (TAF)

Why are we doing this and what benefits will this programme deliver?

The Test Automation Framework (TAF) 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.

Why is it important to DCC?

The Test Automation Framework will deliver significant economies of scale to DCC and our customers through:

- Reducing lead time from Test preparation into Execution for SIT Regression and UIT Proving test phases
- Moving to a 24/7 test operation using robotics executing a fully automated test suite
- Improved Defect identification through use of increased Device Model Combinations and Test Scenarios
- Fixed cost per test cycle providing greater certainty over cost to customers

What's next?

We received SEC Test Advisory Group (TAG) endorsement of our approach in September 2021. A full Business Case was submitted to the Department in June 2022. The programme is now in Design and identifying the most appropriate technical release in Q1 2024 to carry out parallel testing to prove the capability.

DCC Cloud

**Why are we doing this and what benefits will this programme deliver?**

The DCC infrastructure footprint has increased significantly over the last three years and comprises a mix of private hosting and private cloud, with greater adoption and use of public cloud services. The DCC Technology Function is preparing a strategy roadmap which presents DCC with the opportunity to cultivate a secure infrastructure estate designed to deliver improved infrastructure use while improving security, operations, compliance, and system governance. This will also ensure the delivery of improved business outcomes and solution availability, resilience, and scalability. The business accuracy through a service framework will create a more competitive, and more cost-efficient infrastructure estate, following best practice and public sector policy.

These opportunities build momentum towards a structured infrastructure-agnostic cloud strategy aligned to critical national infrastructure best practice. As the DCC network scales, adopting the right capability now will allow these opportunities to be leveraged more fully, more quickly, and at lower transformational cost and risk.

The DCC Technology Function has delivered the DCC Cloud Adoption Framework (CAF), now at version 2.0. It lays out a set of guiding principles to be considered by all parties when designing, procuring, and operating cloud-based systems. It answers three questions:

1. What does "good" look like in the Cloud and how can teams ensure they are implementing cloud best practice which is right for DCC?
2. How can supplier and internal solutions be repeatably evaluated against this definition of good?
3. What considerations should be made across DCC now to ensure decisions promote a more cloud-ready infrastructure estate and commercial landscape?

The CAF lays the foundation to establish a standardised best practice cloud capability, ensuring the right people, processes and technologies are available to all DCC projects across Fundamental and Relevant Service Capability services. Key Relevant Service Capability services hosted in the public cloud, such as those which underpin the Technical and Security Operations Centres, are currently maintained and supported by internal DCC teams. There is a risk that the internal capacity and expertise to fully support these services is not available within DCC.
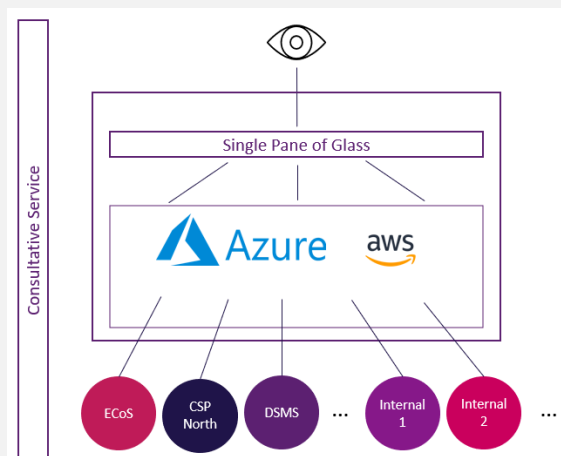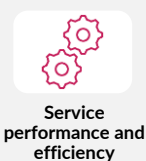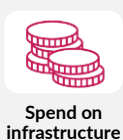
This presents an opportunity for DCC mitigate and transfer internal cloud service risk while laying the foundations for an aggregated, governed cloud capability.

To accomplish this, the DCC Technology Practice is developing the DCC Infrastructure Managed Service Solution (IMSS): an aggregated multi-cloud capability which will be considered the default hosting option for all DCC solutions. The IMSS will comprise three offerings:

1. Centralised enterprise landing zone architecture, IaC repositories and CI/CD deployment pipelines.
    a. Landing zones are created and configured by the IMSS on request and made available to solution providers.
    b. DCC owns top-level public cloud subscriptions, with solution providers managing their services within sub-tenants.
2. Transparent governance through a single pane of glass
    a. DCC has full transparency of data (e.g., performance, billing, security) across the public cloud estate via GUI and API, driven by the guiding principles set out in the DCC Cloud Adoption Framework.
3. A consultative strategic partnership
    a. An on-demand consultative resourcing service will augment DCC's internal transformation and cloud best practice expertise.

Why is it important to DCC?

DCC can leverage cloud native data to improve business accuracy by stepping away from black-box service assurance combining application design and management with infrastructure provisioning. With access to rich data from infrastructure environments, DCC can better understand:

What makes up the DCC Network   Spend on infrastructure   Service performance and efficiency   Environmental impact of infrastructure

DCC can cultivate an aggregated, standardised infrastructure estate, moving away from siloed infrastructure contracts, broken up by service. This will enable

Cost optimised licence management

Leverage of economies of scale

Cost effective transformation

By leveraging well-architected public cloud hosted services, DCC can move away from always-on, on-premises hosting, enabling greater:

Availability

Access to non-prod environments

Reduced lead times

Reduced supplier lock-in

What's next?

The DCC Technology function has laid the foundations for its Platform solution (Infrastructure Agnostic Hosting). We will commence consolidation of environments based on business needs and required outcomes through the next few years working with key service partners, and where appropriate through transparent and open industry consultation and business case development. Go-Live is forecast for the end of the calendar year.

Responsible Business Framework

The DCC is a purpose-led responsible business which is focused on serving its customer community and is held to high standards of performance and value for money. During 2022-23, we developed a Responsible Business Framework to formalise our efforts to be a sustainable business on a more structured, long-term footing.

The framework draws together an array of environmental, supply chain and social aspects of how we work, based on the principles of 'ESG', into a coherent whole. It encompasses all aspects of DCC's carbon footprint and sustainable behaviour, including our supply chain, our people, and the contribution we make to communities.

A set of core principles have informed the level of ambition we set in the framework. We will:

- Decarbonise our operations progressively to live our Purpose, make a difference, and help deliver Britain's Net Zero targets
- Create a responsible business framework for the DCC drawing on best practice, complying with all legislation and mandatory reporting across our operations
- Achieve our ambitions in the most efficient manner possible, with a continued focus on delivering value for money for our customers
- Make this personal as well as corporate – so every DCC employee knows how they can contribute with the greatest impact
- Encourage greater diversity at all levels and create an inclusive environment which attracts the best talent to support our company goals

The target outcomes for DCC's responsible business activity fall under four ambitions, which are at different levels of maturity and development:

1. Progressively reduce our environmental footprint, using robust, validated science-based measures

2. Lead a collective effort across our supply chain to achieve, embed and evidence high standards of sustainability in all activities
3. Build a diverse, inclusive business which prizes equality and fosters employee engagement and pride
4. Leverage our unique skills and expertise to accelerate our purpose and drive social good

Environment	Supply chain	People	Communities
Progressively reduce our environmental footprint, using robust, validated science-based measures	Lead a collective effort across our supply chain to achieve, embed and evidence high standards of sustainability in all activities	Build a diverse, inclusive business which prizes equality and fosters employee engagement and pride	Leverage our unique skills and expertise to accelerate our purpose and drive social good

Much of the initial year of the Responsible Business Framework will centre on data gathering to set appropriate baselines against which to set credible targets for the future. In parallel, we continue to measure, audit and validate our carbon emissions and aspire to maintain carbon neutrality for the period before we have agreed science-based targets. We look forward to sharing progress with our customers as we evolve and implement the framework.

3.5. Outcome 3: Provide a quality experience for our customers and our people

Providing a quality experience for our customers, and our people alike, is integral to the running of our organisation.

We aim to provide service levels that meet our customers', and ultimately consumers', requirements and enable an effective delivery of their services. We are also always looking for opportunities to improve delivery of services and subsequently enable our customers to improve performance. Ultimately, we recognise that we operate as a monopoly and therefore want to ensure we offer our customers the best possible service and experience.

To do this, it is important that our people feel that DCC is a great place to work. Our people are pivotal to the success of our business and delivering our mandate. In what remains an extremely competitive market, we want to ensure we can attract and retain the best talent.

The following section covers our BAU activity and key programmes which enable us to deliver this outcome.

Customer Relationship Management

Through regular service reviews with our customers, we provide data and insights to help them improve their own performance. We undertake this activity primarily to be the voice of the customer within DCC and at the same time the voice of the DCC to the customer. Building relationships with our customers enables us to drive improvements across the industry.

Initiatives such as Standardised Customer Analytics Reporting demonstrate how we are trying to achieve this, and this programme is covered in more detail below. During 2023/24, 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. Using monthly service reviews and

appropriate industry forums, we will work with customers and help them realise the wider benefits of DCC's smart metering proposition.

Standardised Customer Analytics Reporting

Why are we doing this and what benefits will this programme deliver?

Our customer-facing analytics will enable customers to diagnose performance failings across the DCC ecosystem.

Reporting will enable customers to:

- Identify their own performance against key customer business processes

- Benchmark their performance against other customers

- Diagnose issues within their own estate which are causing poor performance

Why is it important to DCC?

The DCC ensures to provide customers with a quality customer experience which accounts for their needs and requirements. The reporting will enable customers to create a roadmap of improvements based upon their individual business priorities.

What's next?

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. We are working with SEC governance to identify which 2023 release is most appropriate for the Modification to go live in, subject to relevant approvals.

DNO programme completed

The DNO Transformation Programme was established to ensure there is a focus on meeting DNOs' specific requirements in relation to Smart Metering and in particular, consistent and accurate reporting of power outage alerts.

The DNO Transformation Programme completed successfully in November 2022. DNOs can leverage DCC services as an enabler to deliver a cost-effective and quality service to their customers improving fault response and assisting in targeting network investment.

The DNO Customer Relationship Management Team in Operations now own the day-to-day relationship with DNOs to ensure that DCC continues, and where relevant, improves the service we offer to this customer base.

We have made significant progress over the last year and driven a step change in our performance through regular Service Reviews and Senior DNO stakeholder bilaterals, ensuring we work collaboratively together to align priorities, challenges and both tactical and strategic plans.

Looking ahead, the key focus for DCC is to:

- Provide continuity of service and demonstrate value of Smart Metering Data to DNOs

- Capture DNOs requirements and demand of the DCC Network/Data, especially as DNOs transition to DSO

- Synergies Across DNO/DCC Strategic Plans

- Capacity Management - obtain DNO requirements and demand

DCC Service Management Systems (DSMS)

Why are we doing this and what benefits will this programme deliver?
This programme will provide a replacement IT Service Management System (ITSM) and ensure continuity of our Service Management capabilities when the current system ends its Service Life. Whilst rolling out this capability, we will simplify the ITSM landscape and make use of new technology – enabling efficient change and automation to improve operational efficiency and provide a better overall customer experience.

Why is it important to DCC?
Procuring a new Service Management System allows the DCC to maintain our obligations with regards to making efficiencies and at the same time, deliver a service which offers value for customers. Improved operational efficiency ensures an effective delivery of our services for our customer base.

What's next?
The Initial Outline Business Case has been produced and the Final Business Case is due by 23 May 2023. Expected Go-Live is April 2025.

Customer-led System Enhancements

One of our key objectives is to help our customers improve the efficiency of their systems and processes, to improve the customer experience of working with DCC and enable the development of innovative 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, 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 the DCC's core services.
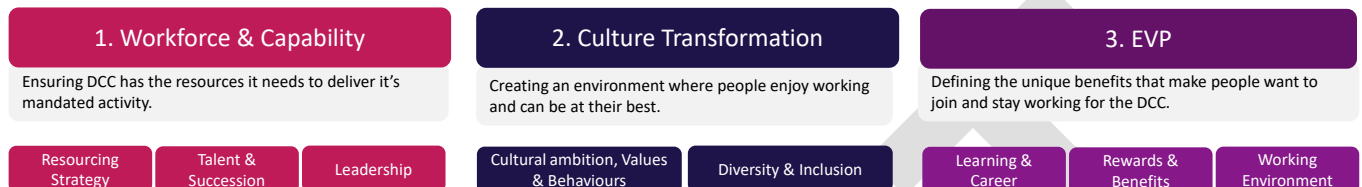
Our People Strategy

The people who work at the DCC are pivotal to the success of our business and delivering our mandate. We want to ensure we continue to deliver our services as efficiently as possible; it is therefore critical we attract and retain the best quality talent.

We continue to implement against our agreed people strategy, which aims to deliver the following outcomes:

- **Improved employee retention leading to reduced recruitment costs, better knowledge retention within the business and improved efficiency**

- **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 delivery our strategy remains through our three key people pillars that will be the enduring focus for the future.

1. Workforce & Capability	2. Culture Transformation	3. EVP
Ensuring DCC has the resources it needs to deliver it's mandated activity.	Creating an environment where people enjoy working and can be at their best.	Defining the unique benefits that make people want to join and stay working for the DCC.
Resourcing Strategy / Talent & Succession / Leadership	Cultural ambition, Values & Behaviours / Diversity & Inclusion	Learning & Career / Rewards & Benefits / Working Environment

Workforce & Capability

We continue to refine our workforce strategy which will ensure that we have access to the right resource at the right time. As part of this, we are focusing on identifying the skills and capabilities that will help us deliver the five-year plan.

In developing this strategy, we have considered the following:

- **Enhancement of our employer brand through a dedicated DCC careers website**

- **Optimising our resourcing approach with a focus on improving time to hire and reducing cost to hire through direct hiring**

- **Taking a proactive approach to building talent pipelines and addressing longer-term resource demand**

We have also strengthened our leadership bench strength this year through enhanced focus on succession planning, development of our senior leadership team and acquisition of talent needed to deliver on our mandate.

One of the key areas of focus this year is developing our wider leadership capability. We have designed and started to deploy a leadership programme to provide our leaders with the skills they need to deliver the best outcomes for our customers and our people. We have developed a new leadership profile setting clear expectations of our leaders aligned to our values and behaviours. The development programme is designed to enhance the capability and confidence of leaders to achieve the best outcomes from their people and ensure consistency of leadership across the business. It includes a range of different modules developing areas central to the achievement of our cultural ambition i.e. driving accountability, collaboration and coaching.

Culture Transformation

Earlier this year, we commenced a culture programme to evolve the culture of DCC as we continue our journey of maturing as an organisation.

During the last year, we have spent time analysing the culture of DCC, understanding the strengths and opportunities to enhance our effectiveness for stakeholders, customers and colleagues. A new cultural ambition and values and behaviours were co-created with colleagues at all levels of the business.

Since then, communication to colleagues of the new values and behaviours has commenced, introducing our cultural ambition as an important foundation in achieving our purpose and goals. Positioned as the first step in our cultural evolution, we have committed to a programme of embedding these values and behaviours in the fabric of our processes and ways of working, which will be a sustained focus for the next 18-24 months.

Leadership is the single most important influence over the cultural shift we wish to make. As outlined above, we have initiated a programme of interventions to re-energise leadership at all levels, aligned to the values and behaviours we have identified.

Employee Value Proposition (EVP)

Our Employee Proposition is an important part of our people strategy, to ensure we create an environment that attracts and retains the best talent for our business.

We continue to run quarterly engagement surveys with our people to understand how they feel about working at DCC. A significant focus on listening and engaging with colleagues and responding to feedback has been in place this year and has seen positive results. Development of our employee engagement champions across the business enabling us to understand what matters most to our people and adjust our employee value proposition accordingly.

Important elements of our EVP include:

- Offering enhanced learning opportunities for our people

- Ensuring our rewards and benefits remain efficient yet competitive

- Implementing initiatives focused on recognition, wellbeing and inclusion.

- This will continue to be a priority for the business this year to ensure we retain an engaged and capable workforce.

Overall, we continue to make good progress across our strategic initiatives with a steady and continual improvement in our key people metrics:

- Engagement scores (eNPS) increasing by 28 points during the year

- Attrition levels declining to below tech industry norms

- Significant improvement in engagement in the areas of culture, wellbeing, inclusion and leadership.

3.6. Outcome 4: Re-use the network for public good

The climate is changing and there is an urgency to deliver Net Zero commitments through the transition to a digital, flexible energy system. This is core to enabling the decarbonisation of energy and allowing us all to lead smarter, greener lives. The energy crisis has also highlighted the impact energy has on vulnerable customers and the need to support them through the energy transition.

Working with our key stakeholders, we want to ensure our vision is fully aligned with the energy transition. We want to support, enable and accelerate government polices to reach Net Zero, deliver greater benefit to society and reduce unit costs for DCC's existing customers, all in line with our vision and licence obligations.

We aim to do this through maximising use of our infrastructure. We have a unique combination of network and system capabilities, run by an expert organisation providing programme delivery and in-life operation that can be used as a platform for policy interventions in support of the energy system transition. Working with our stakeholders, the DCC can be utilised in the delivery of wider public benefits and social value.

For our customers, we are focused on ensuring the smart metering network provides them with what they need to develop innovative new products and services, while also seeking to help off-set operating costs of the total system through onboarding new customers and potential new services.

Below, we set out specific areas designed to help maximise the potential for our customer base as we support the energy system transition.

● Platform for policy and innovation – increasingly we are seeing Government and Ofgem progress policy objectives either through industry activity (e.g. consultations) or through market stimulation (e.g. government funding) in areas that are directly related to the smart metering system and the data generated.

● New market opportunities – 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 will be assessed subject to the outcome of Ofgem's DCC Licence Review.

Platform for policy and innovation

Working with our customers and partners, the 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 our 2022 Business and Development Plan was published, activity in several policy areas has progressed. Significant industry initiatives such as the Market-Wide Half-Hourly Settlement Programme are continuing to advance and will provide the foundation for the next wave of energy system propositions such as Time-of-Use Tariffs.

In addition, we have responded to the Government's policy proposals for a Smart & Secure Electricity System which identified the potential role of DCC and its cybersecurity capabilities could play in underpinning the interoperable demand side response services that will be needed to support the energy system transition.

We will also continue to participate in several government-funded innovation competitions – particularly under the Flexibility Innovation Programme (part of the Government's £1bn Net Zero Innovation Portfolio).

In parallel, DCC's own data access initiative, termed 'Data for Good' is seeking to increase access to smart meter data particularly for public interest purposes – in alignment with the work of the Government and the regulator to explore the potential of this vital data set.

We continue to support these opportunities to help our stakeholders and industry understand the potential of the system in contributing towards key policy priorities and viability of doing so, while remaining cognisant of the absolute priority to focus on our mandated obligations.

A summary of these activities is provided below.

Policy priorities	Summary	Timescales
Smart & Secure Electricity System	Continuing to support the Department with proposals for the potential use of DCC capabilities to deliver 'Common Systems' for cybersecurity including Public Key Infrastructure and Anomaly Detection.	- Working groups expected throughout 2023 - Government decision making and implementation of common systems proposals expected 2024
Vulnerable customers, in particular fuel poverty	Following successful participation in the Modernising Energy Data Applications (MEDApps) competition we are seeking to increase appropriate access to smart system data at an aggregated level to enable further support services to those at risk of fuel poverty. We will also continue discussions with Ofgem and government and potential insights from this data set	Potential 'Permitted Purpose' extension to 2025/26
Flexibility	We will continue to support the Automatic Asset Registration into prototype phase. The project is seeking to develop an automatic secure data exchange process for registering energy smart appliances consolidating data on those assets in a central registry. We will also support industry, as requested, on the Interoperable Demand Side Response programme (ISDSR). The Demand Flexibility Service (DFS) is a critical scheme that supports delivering of net zero, promotes the reuse of our current systems and technology, and is the first stage of a new demand flexibility energy market. The DFS also aims to change consumer attitudes towards energy usage via smart meters and DCC's communication systems.	- Government decision on Phase 2 project (s) Spring 2023 which concludes at the end of 2023/24 - ISDSR Phase 2: June 2023-March 2024 and Phase 3: April 2024-Ocotber 2024 - We are continuing to engage with the ESO to ensure we can support the continued evolution of the DFS
Energy Efficiency	We will continue to help determining the feasibility of connecting sensor devices (temperature and humidity) as part of the Smart Meter Internet of Things programme. We are also exploring the potential role energy data when combined with these additional data sets could play in supporting in Green Finance initiatives.	- Government decision on Smart meter IoT Phase 2 Spring 2023 - Phase 2 concludes summer 2024/24

Data policy and services	We will continue to participate in projects to determine the technical and commercial feasibility of both a smart meter energy data repository and a 'Digital Spine' for the energy industry. We will continue to explore how we can help organisations innovate and develop public interest use cases with smart meter data – both through access to DCC's smart meter 'system data' and through potential enhancements to the access regime for 'message contents'. Further details will be provided in our forthcoming update of the "Data for Good" White Paper.	• Phase 2 ending in May 2023 • Enduring access to anonymised smart meter system data for fuel poverty support – Autumn 2023/24 • Data for Good Paper launched Spring 2023-24 • Progressing Data for Good proposals through to 2024/25
Future policy areas	Early stage of understanding potential for smart metering system to support future policy initiatives (e.g., hydrogen metering).	• We will continue to support various future policy areas such as the hydrogen metering. However, this is not a DCC priority and will be undertaken as requested by Government or 3rd parties

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 non-mandated activity must be without detriment to our core services, deliver measurable benefits, and be supported by our existing customers and stakeholders.

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

We are planning to have mechanisms in place 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.

3.7. Appendix 1: "You said we did"

This section reflects feedback received at the February 2023 BDP engagement sessions with customers, alongside DCC comments in response.

Breakout Room Topic / Outcome	Questions Posed at Engagement Day	DCC Comments
Operate responsibly and efficiently, delivering value for money	How are the DCC planning to improve commercial transparency?	We regularly review the information we provide to the quarterly forums to ensure this provides sufficient visibility on commercial considerations, and we continue to look for new approaches to ensure this information is communicated appropriately.
	How can more information and a supplier roadmap be provided in upcoming Customer Reports?	DCC continues to review what information we can provide in all customer reporting.
Re-use the network for public good	Would be good to have somewhere to download all papers, is a more digital friendly document going to be available?	All documents will be uploaded to the website and a PDF version of the BDP will be available for download. In addition, this year, we are also aiming to have a digital and interactive version of the BDP on the website.
	Market wide interoperability is essential to achieve net zero for example through time of use tariffs. In terms of culture, culture of collaboration across marketplace is key. Can DCC highlight collaboration across industry and building a culture of collaboration in BDP?	DCC firmly believes in a culture of collaboration. We exist to serve our customers, and ultimately end consumers, and could not do what we do without our suppliers. The importance of engagement and collaboration with stakeholders and industry participants has been highlighted throughout the document.
Deliver reliable network performance, ensuring security and resilience	Can DCC highlight WAN related projects in BDP and planning information?	In Section 5, under Outcome 1, we have included relevant programmes such as Communications Hubs and Networks (CH&N).
	What is happening outside the DCC environment over the next 5-10 years to ensure we are ready for the future - e.g. National Grid ESO future scenarios?	Section 3 "Our Operating Context" outlines how market dynamics are shaping our thinking and planning.

	What doesn't come across in the BDP is the work DCC is doing to advance technology. What does future technology of the network look like?	Our technology vision is included in Section 4 "Our Strategy" covering the four key principles adopted to evolve out technology infrastructure.
	Have any learnings on how the DCC systems, network, technology has operated to date taken into account?	Every project is closed with a lessons learnt and areas to improve report which incorporated in the architecture for future projects.
	Can DCC to highlight Pre-Payment meter (PPM) related projects in BDP and planning information?	Where relevant, information on our efforts to support pre payment meters have been included throughout the document.
	Does the Comms Hubs & Networks (CH&N) section of the BDP include information on 4G transition?	We have included updates regarding 4G in the Communications Hubs & Networks Programme section. A new Long-Term Evolution (LTE) 4G connected communications hub service has been procured that will provide secure, flexible connectivity and replace current 2G and 3G services.
	Focus on anything security related, especially Public Key Infrastructures (PKI) as critical infrastructure is important. Will this information be covered in the BDP?	Section 4, "Our Strategy", has a dedicated section on security. Furthermore, in Section 5, under Outcome 1 "Deliver reliable network performance, ensuring security and resilience", we have included updates on PKI as a key programme.
	Market Hourly Settlement (MHHS) is estimated to offer consumer 1.5 billion pounds in overall cost benefits, what can DCC do to help deliver those benefits?	The role of DCC in delivering MHHS is set out in Section 5, Outcome 1.
Provide a quality experience for our customers and our people	Can DCC highlight more information around customer experience in the BDP?	We want to ensure we deliver a quality service and experience for all our customers and meeting their requirements is central to everything we do. While we have outlined a dedicated outcome in the BDP this year on customer experience, all the activity we undertake inevitably has a degree of customer experience involved.
	What is the progress on Customer Analytics Reporting and SEC Modification 176?	This programme is covered in section 5 under Outcome 3.

	What will the benefits be for stakeholders until the license renewal?	**The DCC is currently awaiting the outcome of Ofgem's DCC's licence renewal consultation. However, regardless of the decision, the DCC will continue to deliver towards the outcomes outlined in this document, and we have sought to be clear on the benefits of each programme within Section 5.**
	Customers keen to hear more on the benefits that DCC is delivering, what benefits programmes will deliver and what benefits are realised against what was promised. Can the link between the Annual Report and the BDP show benefits realisation in the year against what was previously said?	**This year we have changed the way we report programmes in section 5 in order to clearly set out the benefits. We will continue to work on and include parallels to the annual report, and track updates in the BDP on subsequent progress and changes.**
	What ways can customer feedback be shared with the supply chain?	**Our customer engagement team work closely with our commercial and operations team to ensure feedback is cascaded appropriately. We continue to look for ways to drive further transparency and collaboration across all our partners.**
	How can DCC Service Management Systems (DSMS) categorise device vs DCC network issues?	**The DSMS programme is currently underway, and is outlined on page 38 of this document.**