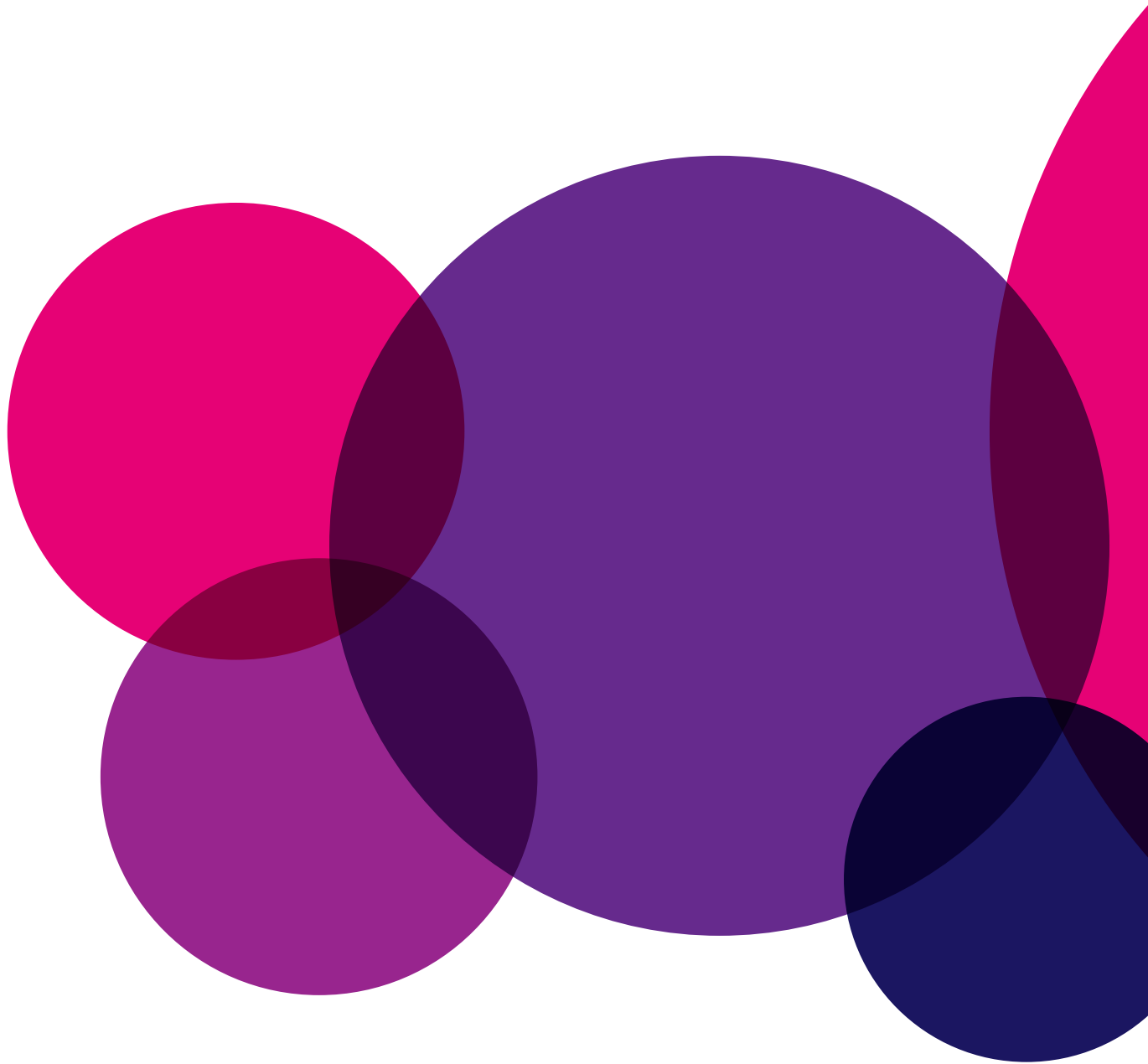


# DCC Business Plan

2017/18 – 2020/21

**Delivering your  
smart future**



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During this period of unprecedented change, we will focus on supporting Users through the transformation of Great Britain's energy system

# Foreword



I am delighted to present the DCC business plan for the period 2017/18 to 2020/21. Our intention is that this business plan will help Users and other industry stakeholders to better understand what DCC will be delivering over the coming months and years and how money is being spent.

2016/17 has been dominated by the integration and launch of the DCC service. This is a major step forward for the Smart Metering Implementation Programme and a vital milestone in DCC's development. It has involved a great deal of effort by both DCC staff and the industry as a whole as they have worked with us to integrate and test systems. We are grateful for their continued support. However, the challenges ahead of us are, if anything, even greater.

Great Britain's energy system is entering a period of unprecedented change. By the end of this business plan period it is planned that SMETS2 smart meters will have been installed right across the country, giving consumers near real-time information on their energy consumption. Estimated bills will be a thing of the past and industry players will be using the insights from consumption data to develop innovative new services and products. Smart meters will also play an important role in enabling the energy system to become smarter and more flexible.

Our focus during this period is to support our Users through this industry-wide transformation. This means scaling our service to best help deliver the smart metering rollout, improving and developing our services and enabling Users to provide the best possible smart experience to their customers.

We also expect to play a key part in addressing interoperability of the legacy SMETS1 smart meters. Subject to Government's decisions in 2017 we anticipate delivering on this requirement during the life of this business plan. We will also continue to assist Ofgem in their programme to allow consumers to switch suppliers faster and more reliably.

In the spring, and after three years at the helm of DCC, I will be handing over the reins to Angus Flett. Angus has extensive experience in the IT and telecommunications sectors where he has successfully managed operations in consumer-facing, business to business and wholesale markets. He brings a proven track record of developing service portfolio and product management businesses.

It has been a privilege and a pleasure to lead DCC from the award of the Smart Meter Communication Licence in 2013 through to the successful delivery of the live service.

**Jonathan Simcock**  
*Managing Director*



In November  
2016, DCC  
launched the  
smart meter  
communication  
service

# Executive summary

Smart meters represent a once in a generation opportunity to transform the energy industry. The rollout of smart meters will help consumers to better understand and manage their energy usage and to make better informed decisions about how they buy their energy. Accurate, near real-time information captured by smart meters will support the transition to a smarter and more flexible energy market.

The DCC smart meter communication service is a crucial enabler for the energy industry. The DCC network connects smart meters to the business systems of energy suppliers, network operators and other authorised Users, such as third party intermediaries. It offers a highly secure, consistent service for all energy suppliers and consumers and avoids the complexity and duplicated costs of energy suppliers procuring their own networks. It provides the information that will enable Users to develop innovative new services and products.

In 2016, Smart DCC Limited (DCC) launched the data communications infrastructure that allows suppliers to install smart meters in every home and small business across Great Britain. This is a major milestone that delivers a first-of-a-kind, coherent and highly secure service for the whole energy industry.

This is a turning point for DCC. We are moving from implementation of a complex solution to operating a live service, as well as managing multiple programmes to deliver new services. We will scale the live service to support the smart metering rollout, improve our services to provide the best possible experience to our Users and develop our services to help realise the industry transformation made possible by smart meters. This requires a shift in our activities and our ways of working.

In this business plan we set out our priorities for the next four years. It is intended to help our Users understand the full range of DCC's activities and how these relate to the costs

set out in the DCC Charging Statement and Indicative Budgets.

Over the period of this business plan, we will focus on the following priorities:

- Completing the implementation of the smart meter communication service, scaling a reliable live service to support the rollout of smart meters and being responsive to solve any issues. We will use evidence based on experience to improve our service and provide the best possible experience for our Users.
- Establishing the enduring model for delivering change to the live service – to help realise the industry transformation made possible by smart meters
- Increasing our level of engagement with Users to understand evolving requirements and to increase the level of stakeholder involvement in decisions – to maximise the value of the service we deliver on behalf of industry

It is also important that we continue to build DCC's expertise and core capabilities over the coming years, including:

- Our knowledge of the real-life capabilities and performance of the live service – assumptions will be replaced with actual experience
- Our ability to successfully deliver change – both to introduce new services and to deliver efficiencies, performance improvements and enhancements to existing services, including

DCC is at a turning point. We are moving from implementing a complex solution to operating a live service and managing multiple programmes



managing multiple, concurrent programmes of work

- Our ability to provide increasing value for money for our Users and the consumer, including maximising value from our Service Providers

Our plans and budgets reflect activities that we know we will need to carry out in the next four years. Due to our role in the energy sector, our services and our capabilities, it is likely that we will be asked to take on additional work during this period. However, where the scope and timing of additional work is highly uncertain, we have not included objectives or costs relating to new areas of work in this business plan. For example, we have not included costs relating

to the introduction of mandatory half-hourly settlement or the Centralised Registration Service Provider. However, we have explained some of the key emerging areas we expect to engage with over the next few years.

Our priorities and key milestones over the next four years are summarised in Table 2 overleaf.

The projected total cost through this period is shown in Table 1.

This business plan reflects the costs set out in the DCC Charging Statement for 2017/18 and the Indicative Budgets for 2018/19 and 2019/20<sup>1</sup>. We also provide an outlook of the expected charges for 2020/21.

Cost Summary - £m	Charging Statement			Indicative Budgets		
	2016/17	2017/18	Variance	2018/19	2019/20	2020/21
Internal Operations	36.4	51.2	14.8	46.2	46.4	43.2
Fundamental Service Providers (1)	185.1	192.9	7.9	219.7	252.8	279.0
Communications Hubs	0.5	12.4	11.9	49.3	68.9	110.9
Relevant Service Providers (2)	6.0	4.2	-1.8	4.2	4.2	4.1
<b>Total Regular Activity</b>	<b>228.0</b>	<b>260.7</b>	<b>32.7</b>	<b>319.4</b>	<b>372.3</b>	<b>437.3</b>
Adjustments (3)	11.3	31.0	19.6	19.2	17.1	15.5
<b>Total Charges</b>	<b>239.3</b>	<b>291.7</b>	<b>52.4</b>	<b>338.6</b>	<b>389.3</b>	<b>452.7</b>

1) Fundamental Service Providers - Data Services Provider, Communication Services Providers

2) Relevant Service Providers - Trusted Service Provider (SMKI provider), Parse and Correlation Service Provider, Enterprise Systems Service Provider.

For the Charging Statement, these costs are shown within the Internal cost lines.

3) Adjustments are made up of Prudent Estimate, Pass Through, Correction Factor, Margin

Table 1 – Summary profile of expected charges and budgets

1 For the latest budget information, please visit the DCC website: [www.smartdcc.co.uk/charges](http://www.smartdcc.co.uk/charges)



Table 2 – Priorities and key milestones for the next four years

2018/19	2019/20	2020/21
<ul style="list-style-type: none"> <li>▪ 99.35% SMWAN coverage in North Region</li> <li>▪ 97.75% SMWAN coverage in Central and South Regions</li> <li>▪ Consider how to cost-effectively extend coverage to the remaining properties that do not have a signal</li> </ul>	<ul style="list-style-type: none"> <li>▪ 99.40% SMWAN coverage in North Region</li> <li>▪ 97.75% SMWAN coverage in Central and South Regions</li> <li>▪ Supporting tens of millions of meters</li> <li>▪ Deliver improvements and efficiencies to reduce DCC and User unit costs</li> </ul>	<ul style="list-style-type: none"> <li>▪ 99.50% SMWAN coverage in North Region</li> <li>▪ 99.25% SMWAN coverage in Central and South Regions</li> <li>▪ Supporting up to 53 million meters</li> <li>▪ Deliver improvements and efficiencies to reduce DCC and User unit costs</li> </ul>
<ul style="list-style-type: none"> <li>▪ Improve quality and responsiveness of service</li> <li>▪ Deliver any changes to support Alternative Home Area Network (HAN) solutions (if required)</li> <li>▪ Deliver enhancements and new functionality that meet the needs of Users</li> </ul>	<ul style="list-style-type: none"> <li>▪ Deliver enhancements and new functionality that meet the needs of Users</li> <li>▪ Consider how to refresh the technology of the DCC systems and infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>▪ Deliver enhancements and new functionality that meet the needs of Users</li> </ul>
<ul style="list-style-type: none"> <li>▪ Deliver Initial Operating Capability</li> <li>▪ Enrol first cohort of eligible SMETS1 meters</li> </ul>	<ul style="list-style-type: none"> <li>▪ Deliver Full Operating Capability</li> </ul>	<ul style="list-style-type: none"> <li>▪ Operate reliable SMETS1 communication service</li> </ul>
<ul style="list-style-type: none"> <li>▪ Develop CRS technical specification</li> <li>▪ Complete preparation for procurement of CRS capability</li> </ul>	<ul style="list-style-type: none"> <li>▪ Complete procurement of CRS capability</li> <li>▪ Mobilise for Design, Build and Test phase</li> </ul>	<ul style="list-style-type: none"> <li>▪ Implement the CRS (subject to further licence amendment)</li> </ul>
<ul style="list-style-type: none"> <li>▪ Engage with Users on evolving requirements</li> </ul>	<ul style="list-style-type: none"> <li>▪ Engage with Users on evolving requirements</li> </ul>	<ul style="list-style-type: none"> <li>▪ Engage with Users on evolving requirements</li> </ul>
<ul style="list-style-type: none"> <li>▪ Work with Users and Ofgem to evolve performance reporting</li> <li>▪ Agree financing arrangements for next tranche of Communications Hubs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consider future commercial strategy, including how to re-procure the Data Services Provider</li> </ul>	<ul style="list-style-type: none"> <li>▪ Prepare for re-procurement of Data Services Provider</li> </ul>



We will collaborate  
with our  
stakeholders  
to shape our  
future priorities

# The DCC business plan

We published the first DCC business plan in January 2016. The purpose of the DCC business plan is to help our Users and other stakeholders understand and contribute to our priorities over the next four years. The aim is to help our Users understand the full range of DCC's activities and the associated costs as set out in the DCC Charging Statement, Indicative Charging Statement and Indicative Budgets.

In this business plan we set out:

- Who we are and what we do
- A review of our activities in 2016/17
- Our plans for the next four years
- A summary of our budget forecasts for the next four years

We separately publish the DCC Development Plan<sup>2</sup>, which focuses on service development activities across all DCC programmes. This business plan covers the full range of DCC activities, which includes the role of the DCC licensee and service delivery activities, as well as service development.

We want our stakeholders to have an increasingly important role in shaping our future priorities and plans. This year's business plan takes into

account feedback on last year's business plan and feedback from an industry engagement event held in October 2016, where we sought views on DCC's role in the energy industry, DCC's priorities for the next four years and how DCC could engage more effectively with stakeholders in future. Attendees told us that they would like to be engaged more fully in DCC decision making and to receive more and better quality information to support this. They expect DCC to embed continuous improvement practices and realise efficiencies throughout the rollout period.

We continue to welcome your feedback on the DCC business plan so we can make this document more helpful to our Users and other stakeholders.

<sup>2</sup> DCC's current Development Plan is available on the DCC website: [www.smartdcc.co.uk/about-dcc/future-service-development](http://www.smartdcc.co.uk/about-dcc/future-service-development)

# Who we are and what we do

## DCC's role in the energy sector

Smart DCC Limited (DCC), a wholly owned subsidiary of Capita plc, was awarded the Smart Meter Communication Licence ('the licence') by the Secretary of State for Energy and Climate Change on 23 September 2013. DCC is a special purpose vehicle created to carry out the Authorised Business of the licence. In line with our commitment to our Licence Objectives, our primary role is to implement and operate the smart meter communication service through our Service Providers and to deliver our services in a way that encourages competition and innovation in the energy sector, while ensuring value for money and reducing DCC charges.

The company is led by the Board of Directors, including two Independent Directors, whose role includes ensuring that DCC acts independently in accordance with its Licence Objectives.

### A regulated business

We have a unique position in Great Britain's energy market because all domestic energy suppliers will be required to use DCC Services to communicate with smart meters. Due to our monopoly position, DCC is rigorously audited, regulated and governed.

We are regulated by Ofgem and we ensure we are compliant with our licence. This includes assuring that we spend money in an economic and efficient way through the annual ex-post Price Control regime.

The Department for Business, Energy and Industrial Strategy (BEIS) oversees and coordinates the joint industry activity during the implementation phase of the Smart Metering

Implementation Programme (SMIP). We report on our SMIP delivery progress to industry and to BEIS.

We are a party to the Smart Energy Code (SEC). The SEC is a multi-party agreement that provides the regulatory framework for DCC to provide services to the energy industry. It defines the rights and obligations of DCC, energy suppliers, network operators, and other parties involved in the end-to-end management of smart metering. The SEC Panel governs the SEC. BEIS is gradually transferring powers to the SEC Panel and to Ofgem, who will be responsible for managing and approving changes to DCC requirements through the SEC Modifications process.

DCC is just one of many participants in the SMIP. It is crucial that we work with our Users, including energy suppliers, network operators and other authorised third parties, as well as meter manufacturers, Registration Data Providers and others to enable a successful rollout. We do not have a direct relationship with energy consumers.

### A delivery body on behalf of the energy sector

DCC is a highly skilled delivery body that procures and manages delivery of services on behalf of the energy sector. Working with the energy industry, the SEC Panel, BEIS and Ofgem, we aim to help realise policy objectives that will allow consumers to benefit from smart meters and a smarter, more flexible energy market.

DCC will enhance existing services and develop new services to support the transformation of the energy industry. The energy sector can choose to use DCC as the delivery vehicle to

execute the vision of a smart, more flexible energy system.

In our delivery role, we are the intelligent client on behalf of the energy industry. This means that we:

- Work in partnership with the energy sector to identify opportunities for developing and improving DCC's services to support the transformation of the industry
- Develop solutions that meet service requirements
- Procure industry-leading capabilities from external Service Providers who will be responsible for delivering service requirements
- Lead the execution of projects and programmes that will deliver new and improved services to industry
- Manage the operation of integrated services that meet the requirements and expectations of industry
- Work in partnership with our supply chain to maximise the value that industry derives from DCC's Service Provider assets, capabilities and services
- Deliver and operate services that are effective, economic and efficient

### Our Service Providers

DCC delivers services through contracting with Service Providers and assuring their delivery, during both implementation and live operations.

We have a diverse range of Service Providers that will continue to grow as we introduce new services. We procure new Service Providers in line with the DCC Procurement Strategy<sup>3</sup>.

We closely monitor the progress of all contract deliverables, milestones and ongoing change control documents, as well as approving key Service Provider policies. We contract manage our Service Providers in line with the governance provisions in each contract. This includes oversight through a number of management boards defined in the Governance Framework.

To ensure value for money in relation to changes, the DCC commercial team provides significant challenge to quotations received from Service Providers and negotiates hard to ensure good value in the contracts.

The Service Provider contracts also contain specific obligations to achieve additional value for money as the programme progresses into the delivery phase. Where Service Provider contracts extend over a number of years, DCC aims to include provisions for the benchmarking of the service in the contract to ensure continuing value for money. For example, the Smart Metering Key Infrastructure (SMKI) Service, Billing System and Service Desk contracts contain these provisions. DCC has also included break clauses in some Service Provider contracts, such as the Service Desk and Business Intelligence and Management Information, to ensure that there is an incentive on the Service Provider to maintain service levels.

<b>Smart meter communication service for SMETS2 meters</b>	Enables energy suppliers to install and operate smart meters in homes and small businesses across Great Britain. The service will play a key role in enabling the move to a smarter, more flexible energy system
<b>Smart meter communication service for SMETS1 meters</b>	Will ensure consumers with a SMETS1 meter can continue to receive a smart service after switching energy supplier
<b>Centralised Registration Service (CRS)</b>	Will underpin new arrangements for faster, more reliable switching for consumers changing energy suppliers. DCC is a key delivery partner in Ofgem's Switching Programme and we are contributing to the design of the new switching arrangements

Figure 1 – DCC Services

3 [www.smartdcc.co.uk/media/410997/dcc\\_procurement\\_strategy\\_v\\_5.0.pdf](http://www.smartdcc.co.uk/media/410997/dcc_procurement_strategy_v_5.0.pdf)

### Charging for Services

The majority of the costs associated with providing DCC Services are recovered from suppliers and networks based on total market share. Costs for Communications Hubs are primarily based on the number of smart meters enrolled with DCC. For specific services for

individual Users, such as remote test labs and Gateway Connections, costs are recovered through explicit charges. Full details of DCC’s charges are set out in the Charging Statement published on the DCC website. Indicative charges and budgets for future years are updated each quarter.

## DCC Services

DCC’s core service is the smart meter communication service for SMETS2 meters. DCC is also working to introduce additional services. These are summarised in Figure 1.

These services are explained in more detail below.

Our licence allows us to develop further services to support the transformation of the energy industry. We are closely following changes being discussed in the energy sector, including the move to a smarter, more flexible energy system and the ambition to settle domestic and smaller non-domestic consumers on a half-hourly basis. DCC is responding to the recent consultations on these topics.

rollout of smart meters will be the catalyst for the most significant and innovative changes to the energy sector since privatisation.

DCC has built and implemented a brand new, highly secure nationwide network to support data communications with these smart meters. The network connects smart meters to the business systems of energy suppliers, distribution network operators and other authorised Users, such as third party intermediaries. This allows suppliers to remotely carry out functions such as collecting meter readings and updating tariffs and will allow networks to receive power outage alerts. It also allows price comparison websites to help consumers find the best deal based on their actual energy consumption.

### Smart meter communication service for SMETS2 meters

The smart meter communication service is a critical part of the SMIP, which will see energy suppliers install up to 53 million smart meters in around 30 million homes and small businesses across Great Britain over the next four years. The

Providing a single, centralised network avoids the complexity and duplicated costs of energy suppliers procuring their own communications networks. The smart meter communication service is based on common standards to ensure a consistent service for all Users. Suppliers are

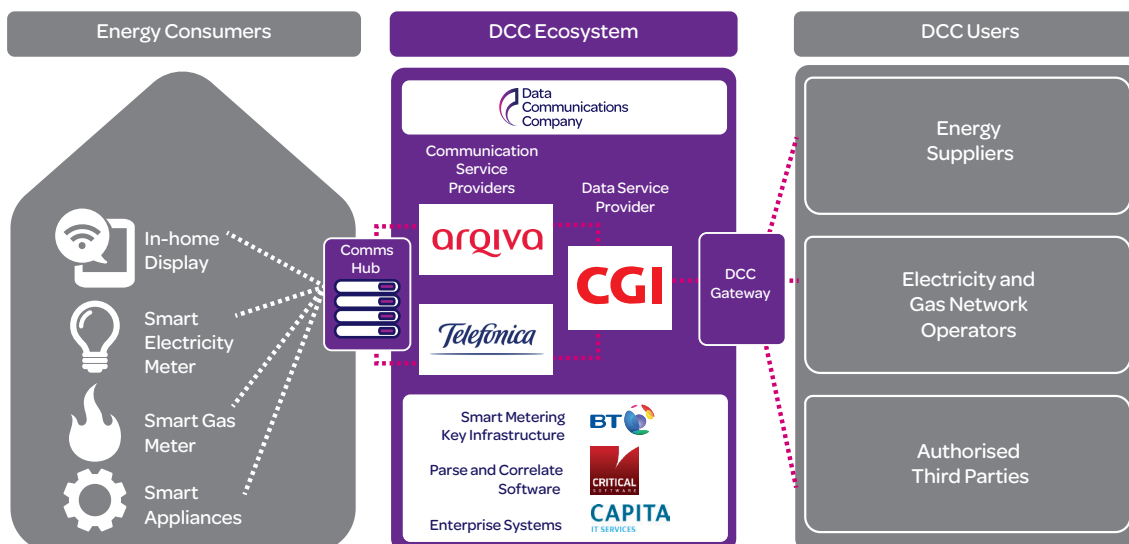


Figure 2 – Key components of the smart meter communication service and Service Providers



installing smart meters based on Smart Metering Equipment Technical Specification version 2 (SMETS2), which is a specification developed by the Government. The end-to-end security model ensures that trust is maintained between the consumer and the DCC User.

The service is critical to the way our Users' businesses operate. The smart meter communication service provides the information that will enable energy suppliers to provide a good service to their customers and to develop innovative new services for consumers, such as time of use tariffs. It will enable distribution network operators access to more granular consumption information, which should support more efficient network management.

DCC will make changes, improvements and enhancements to the service on an ongoing basis. These will support evolving User requirements and maximise the value of the infrastructure to the energy sector.

Figure 2 illustrates the key components of the smart meter communication service. The service is described in more detail in Appendix A.

### **Smart meter communication service for SMETS1 meters**

Some energy suppliers have been installing smart meters prior to the DCC network being available. Many of these meters are based on Smart Metering Equipment Technical Specification version 1 (SMETS1). Each energy supplier installing these meters has set up their own data communications arrangements. This means that when a customer with a SMETS1 meter switches energy supplier, the meter may not continue to work as a smart meter, depending on the data communications arrangements the new energy supplier has in place. Where the new energy supplier cannot operate the meter in 'smart' mode, it will operate like a traditional meter.

While energy suppliers can continue to roll out SMETS1 meters following DCC Live, the Government has set an end date of 12 months

after Release 1.3, after which these meter installations will no longer count towards energy suppliers' rollout targets. Suppliers have advised DCC that, at the end of 2016, there are an estimated two million SMETS1 compliant smart meters installed and that an additional eight million meters will be installed after this time.

The Government has asked DCC to consider how to enrol SMETS1 meters into its infrastructure. This would allow energy suppliers and other authorised parties to communicate with both SMETS2 and SMETS1 meters via DCC. This would mean that a customer with a SMETS1 meter who changes their energy supplier would continue to receive a smart service. The new energy supplier would be able to communicate with the smart meter in the same way as the old energy supplier. This would also reduce the risk that SMETS1 meters will have to be replaced before the end of their operating lives.

On 11 November 2016, DCC published a consultation on a draft Initial Enrolment Project Feasibility Report (Feasibility Report)<sup>4</sup>, which assesses options for how we could provide a smart metering communication service for SMETS1 meters put forward by energy suppliers. Once we have taken responses into account, we will submit the Feasibility Report to the Secretary of State, who will direct DCC to proceed with one or more options.

### **Supporting Ofgem's Switching Programme: the Centralised Registration Service (CRS)**

Ofgem has established the Switching Programme to improve consumers' experience of switching between energy suppliers, leading to greater engagement in the retail energy market. This will be achieved by designing and implementing a new, faster and more reliable switching process, underpinned by a CRS procured by DCC.

DCC is a key delivery partner in Ofgem's programme. Conditions have been introduced to DCC's licence requiring DCC to contribute to the design of the CRS and the broader switching arrangements and to procure the CRS.

4 [www.smartdcc.co.uk/consultations/dcc-consultations/consultation-on-initial-enrolment-project-feasibility-report](http://www.smartdcc.co.uk/consultations/dcc-consultations/consultation-on-initial-enrolment-project-feasibility-report)

We have delivered  
a first-of-a-kind,  
coherent and highly  
secure service for  
the energy industry

# Review of 2016/17 activities

In 2016, our priority was to deliver the smart meter communication service that will enable suppliers to install smart meters.

In last year's business plan we set out two focus areas for 2016/17:

- Integration – bringing the different DCC systems and processes together into a coherent service
- Interoperability – ensuring that Users can interact with our service

In line with these priorities, we have worked hard to bring DCC systems and processes together into a coherent service and ensure that Users can interact with it. This culminated in the delivery of DCC Live in November 2016.

We have also carried out programmes of work relating to SMETS1 meters and Ofgem's Switching Programme.

We have developed a Feasibility Report that explores options for constructing a DCC service that allows consumers with SMETS1 meters to switch energy suppliers and still receive a smart service.

Following changes to our licence, we have been working to scope and plan for our role in contributing to Ofgem's Switching Programme, which aims to introduce faster and more reliable switching between energy suppliers. In parallel, we have supported the early design, delivery, commercial and regulatory work as part of the Blueprint phase.

Our key engagement activities over the year are summarised in Figure 3.

## Smart meter communication service for SMETS2 meters

### Delivering core functionality

We successfully delivered DCC Live in the Central and South Regions on 8 November 2016 and in the North Region on 25 November 2016, through the delivery of Release 1.2. This release provided the core functionality of the smart meter communication service for SMETS2 meters. This marked the point at which DCC was operationally ready and able to manage messages to and from meters on our production platform. This functionality allows Users to roll out smart meters to credit customers and allows networks to access some service requests.

The remaining functionality, including prepayment functionality, will be delivered through Release 1.3 in April 2017.

This was a significant achievement following three years of coordinated effort by DCC, its Service Providers and Users, along with BEIS and the SEC Panel. The smart meter communication service brings together many different complex components in a first-of-a-kind and highly secure solution. This required extensive testing to resolve inconsistencies between systems and ensure that they provide a robust, seamless and highly secure service. This included testing different systems in isolation, testing them together and testing them with different parties including Users.

We delivered broadly within the timescales we had forecast. DCC proposed and BEIS directed a Joint Industry Plan date of August 2016 for delivery of Release 1.2. As a result of the

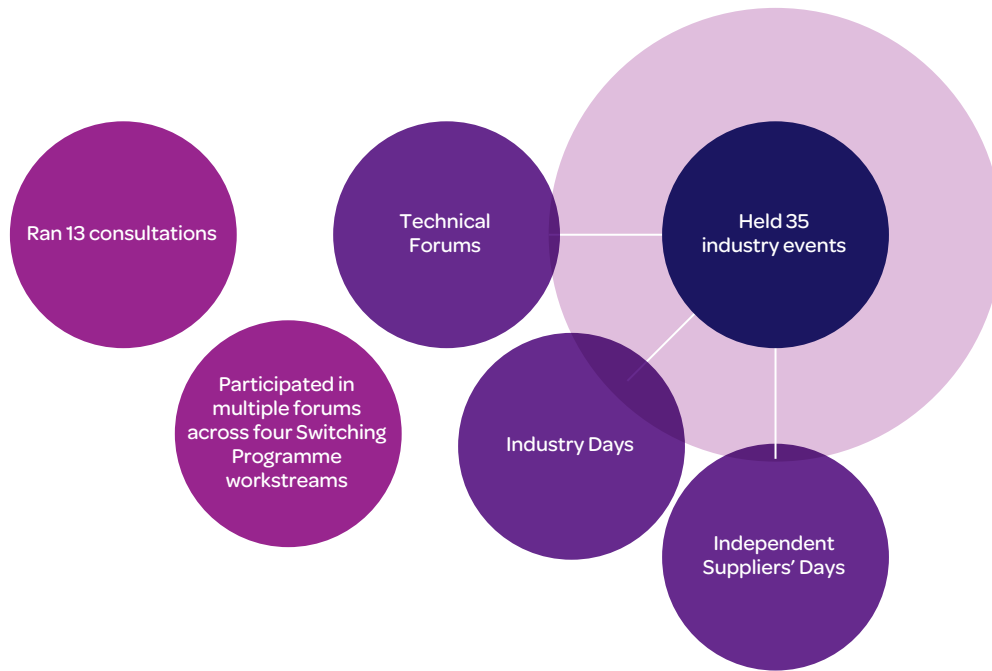


Figure 3 – Key engagement activities April – December 2016



Figure 4– Service Centre metrics in year to 31 October 2016

challenges of testing such a complex service, we called down the contingency that was made available by the Government in March 2015. This resulted in a new target delivery date of the end of October. Following final testing to ensure that the live service would be suitably robust, we delivered the live service in November 2016.

### Operation of the live service

During 2016/17 we carried out extensive work to ensure that the operation is prepared to support the core service delivered at Release 1.2. The operational readiness function ensured that all activities and artefacts required to support the live service were identified and completed. This included ensuring that:

- All testing, including Operational Acceptance Testing and Business Acceptance Testing, had been completed
- All operational processes, user guides, training and work instructions had been identified, created, formally accepted and handed over to operations

At the time of writing, the volume of activity in this early life phase is very low. Users are still testing their integration with DCC and their end-to-end processes and some are awaiting the release of the prepayment functionality through Release 1.3 before commencing their rollout activities. We are using this period as an opportunity to capture learnings from installations to improve our systems and to ensure the interface between DCC and Users is working seamlessly.

Prior to the delivery of Release 1.2, we had been providing live services for over a year. These early services included:

- DCC Gateway Connection ordering and configuration – for Gateway Connections that allow Users to communicate securely with DCC systems
- Remote Test Services – test participants can order Communications Hubs for testing and install these in a ‘remote test lab’ at a

location of their choice, along with their own meters. This allows test participants to test the operation of different types of meters with the DCC systems. Users can also carry out end-to-end tests between their back office systems, the DCC network and smart meters

- SMKI Registration – the steps that organisations need to follow in order to gain access to SMKI services, which ensure secure end-to-end communications with devices in the home

The Service Centre has been live throughout 2016. In the year to 31 October 2016, the Service Centre has delivered 100% availability. Figure 4 summarises Service Centre contacts, which primarily related to live services and processes, in the year to 31 October 2016.

### Security

The security controls are a critical part of the smart meter communication service. They ensure that smart metering data is only accessible to authorised organisations. We have focused on ensuring that the design, build and testing of the DCC solution is appropriate and that we are compliant with our requirements. The DCC solution has been independently assessed and we have achieved our planned accreditations, namely ISO27001:2013 and tScheme (for the SMKI service). We have delivered our target operating model which will continue to mature as we learn more about the ways in which the system will be used.

### Delivering full functionality and change

#### Release 1.3

Further functionality is due to be delivered as part of Release 1.3 at the beginning of 2017/18. This will allow suppliers to roll out smart meters to prepayment customers, provide alerts to network operators, support half-hourly readings and provide the remaining service requests. This will complete the core smart meter communication service as prescribed in the SEC.

On 20 December 2016, BEIS approved DCC’s proposed delivery plan for Release 1.3. The

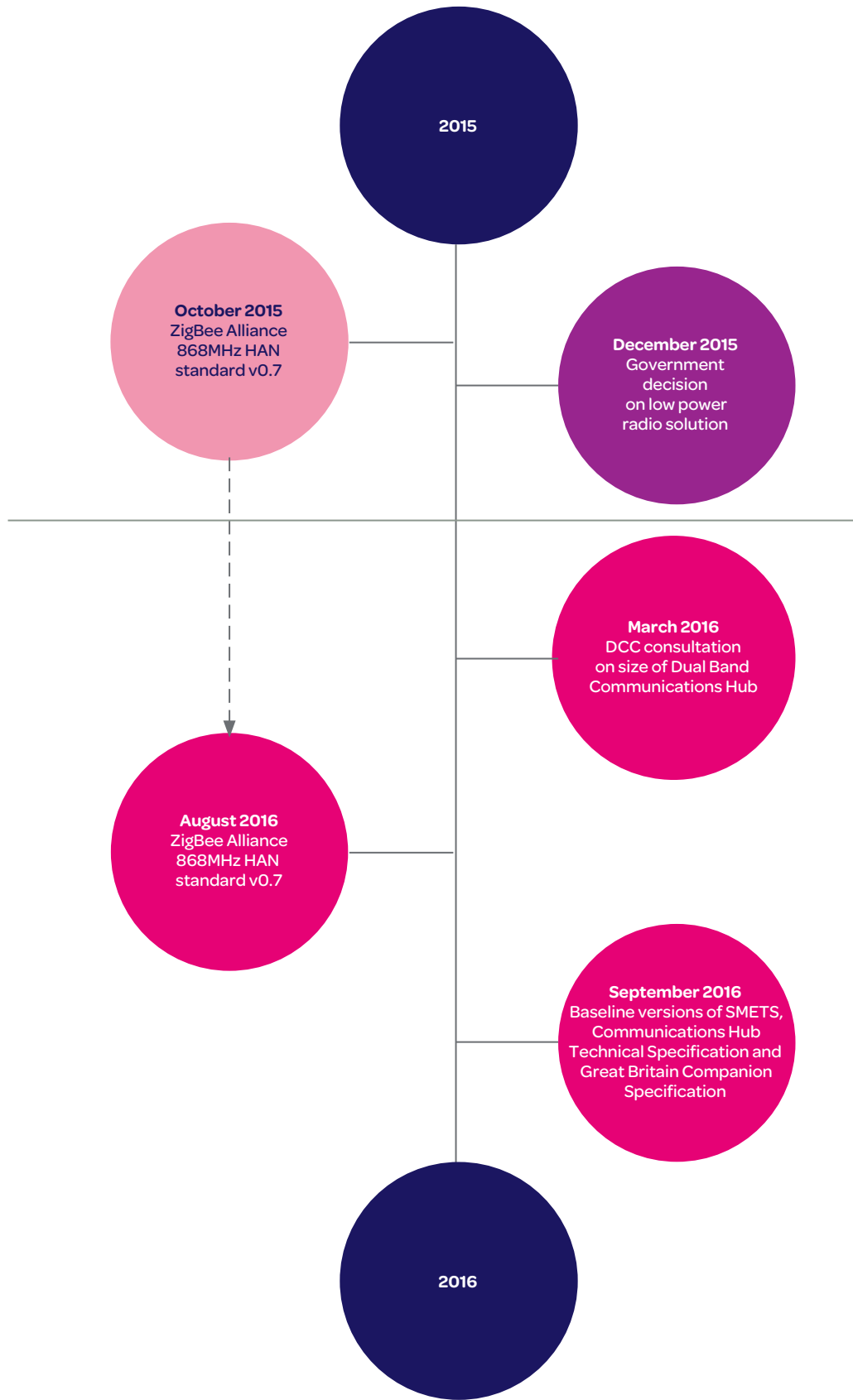


Figure 5 – External inputs to the Dual Band Communications Hub impact assessment

plan specifies that Release 1.3 functionality will be available for Users in the End-to-End environment on 6 March 2017 and available in the production environment on 10 April 2017. Four weeks of contingency will be held by DCC. We are incorporating lessons from delivering Release 1.2 to deliver Release 1.3 more efficiently.

### **Future change**

We are also preparing to deliver changes and optimisations to the service. These will include SEC Modifications, Secretary of State led changes, optimisations and defect fixes.

As of 6 January 2017, 30 SEC Modifications have been raised since the Modifications process was activated in February 2016. DCC has mobilised a small team of regulatory and design specialists to support the SEC Modifications process. DCC has provided representatives to every Working Group to date, as well as to the SEC Panel and the Change Board.

At the time of writing, DCC has provided seven preliminary assessments and four full impact assessments to support the assessment of Modifications. We expect that the first set of DCC changes resulting from SEC Modifications will be delivered in the June 2018 release.

During the implementation of Release 1.2 and the early period of live operation, at a time when we are also assessing significant Secretary of State led changes, we have faced challenges in delivering the volume of additional change associated with SEC Modifications. We will work to improve our ability to respond to these new changes as the live service stabilises.

We are working to define the enduring delivery model for release management. We are providing information to support the SEC Panel's decision making on the SEC Panel Release Management Policy.

### **Dual Band Communications Hubs**

BEIS estimates that the standard, single band Communications Hub will allow a viable Home

Area Network (HAN) to be established in around 70% of properties. The HAN allows smart metering data to be communicated within the home through wireless connection of the devices. BEIS estimates that the introduction of a Dual Band Communications Hub, which includes an additional 868MHz radio, will mean that a viable HAN can be established in up to 96.5% of properties. The introduction of an 868MHz HAN solution is therefore necessary to allow suppliers to complete their rollouts. The remaining 3.5% of premises will be serviced by an alternative solution acquired by energy suppliers, known as Alternative HAN, through AlthANCo.

The Government has directed DCC to develop an impact assessment for introducing a Dual Band Communications Hub that includes an 868MHz radio. Once this is approved, DCC will contract for the Dual Band Communications Hub with the Communication Services Providers and manage its delivery.

The impact assessment is dependent on a number of external inputs as shown in Figure 5.

To mitigate the impact of slippage to delivery of the ZigBee standard, which is outside DCC and Government control, the Communication Services Providers have commenced the hardware design of the Dual Band Communications Hub in advance of the firmware design. We have completed the high level hardware design and are moving into iterative optimisation of the prototype. DCC is in the process of establishing a full impact assessment with the Communication Services Providers and expects to receive this in Q1 2017.

### **Managing our Service Providers**

Over the last year, our key focus in managing our Service Providers has been driving the delivery of Release 1.2 and agreeing a revised plan for the delivery of Release 1.3. We have also laid out the commercial foundation for the early subsequent releases, which commence in 2017/18.

## Smart meter communication service for SMETS1 meters

During this year we have produced a Feasibility Report that assesses options for how we could provide a smart metering communication service for SMETS1 smart meters put forward by energy suppliers.

The Feasibility Report takes into account technical, commercial, financial, operational, security and implementation considerations across a number of different existing SMETS1 smart meter solutions. It sets out the feasibility, costs and risks of different options for providing a DCC smart meter communication service for SMETS1 meters.

To provide early proof of concept evidence to support the Feasibility Report, we carried out

Enrolment Options Testing to prototype the communication with different types of SMETS1 meters based on the different options being considered. The objective of this work was to reduce the risk associated with a purely paper-based Feasibility Report and provide evidence to support the evaluation of options.

We published a consultation on the Feasibility Report on 11 November 2016<sup>5</sup>. Industry views on the options described in the Feasibility Report will provide valuable insight for BEIS policy decisions and DCC design. Following the consultation, we will submit the updated Feasibility Report to the Secretary of State, who will direct DCC to proceed with one or more options.

## Supporting Ofgem's Switching Programme

DCC is a key delivery partner in Ofgem's Switching Programme, which aims to design and implement a faster and more reliable process for consumers to switch energy supplier. The new arrangements will be underpinned by a CRS which will be procured by DCC. Ofgem has introduced conditions to the licence that require DCC to contribute to the design of the CRS and the broader switching arrangements and prepare for and execute the procurement of the CRS.

We have produced the DCC Switching Business Case, which sets out DCC's forecast activities and costs and our proposed margin and incentives relating to our role in supporting Ofgem's Switching Programme. The DCC Switching Business Case covers the period from 1 April 2016 up to the point of contract signature for Fundamental Registration Service Capability to deliver the CRS (referred to as the Transitional Phase). Ofgem published a consultation on the DCC Switching Business Case on 24 November 2016<sup>6</sup>. Following this consultation, the DCC Switching Business Case

will be baselined in March 2017. DCC will report its actual and forecast costs to Ofgem on a regular basis throughout each regulatory year. DCC is also required to justify its expenditure on the Switching Programme through its annual ex-post Price Control reporting.

DCC's role and responsibilities in the Switching Programme continue to evolve. The DCC Switching Business Case will be revised and updated at key points in the programme to take account of the increasing level of certainty about design and delivery decisions and planned activities, timelines, resource requirements and costs.

During the Transitional Phase, DCC is required to:

- Provide resource to support Ofgem-led activity to define the design, delivery, commercial and regulatory arrangements for switching
- Prepare for and deliver the procurement of the CRS

<sup>5</sup> [www.smartdcc.co.uk/consultations/dcc-consultations/consultation-on-initial-enrolment-project-feasibility-report](http://www.smartdcc.co.uk/consultations/dcc-consultations/consultation-on-initial-enrolment-project-feasibility-report)

<sup>6</sup> [www.ofgem.gov.uk/publications-and-updates/draft-dcc-business-case-dcc-activities-during-transitional-phase-switching-programme](http://www.ofgem.gov.uk/publications-and-updates/draft-dcc-business-case-dcc-activities-during-transitional-phase-switching-programme)



- Support development of the Ofgem and DCC Business Cases

During 2016, we have established a dedicated DCC team of specialists to contribute to Ofgem’s Switching Programme. We have participated

in Ofgem-led workstreams (Business Process Design, Delivery Strategy, Commercial and Regulatory Design) by leading and contributing to the development of products that define the new switching arrangements. The products we have delivered are illustrated in Figure 6.

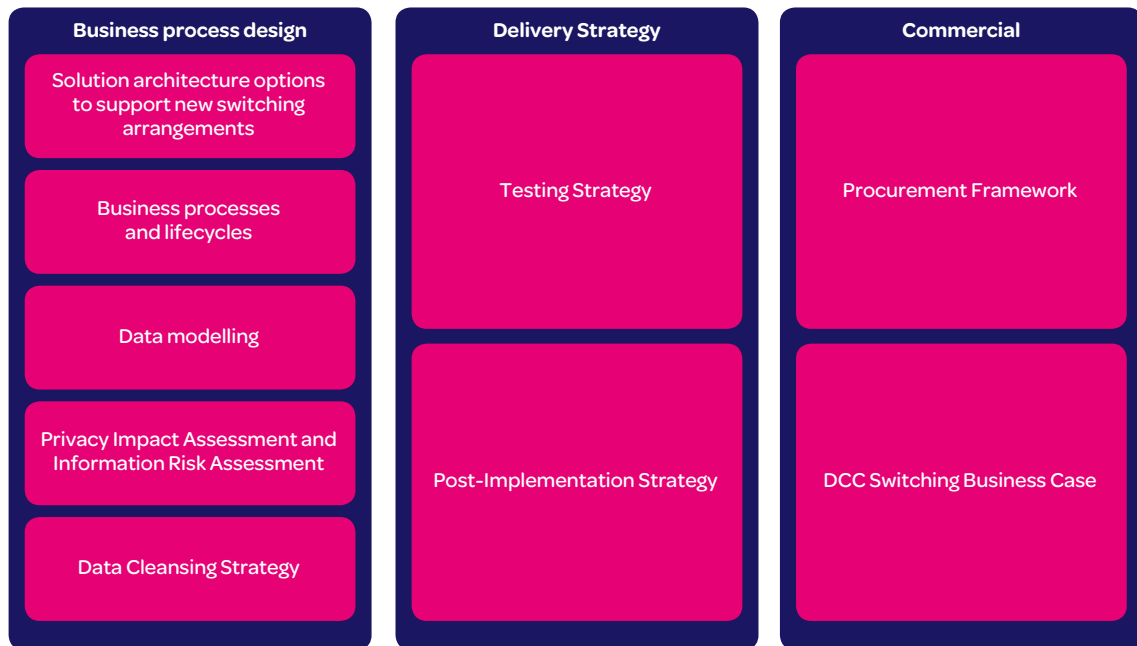


Figure 6 – Products delivered into the Switching Programme

We will engage  
with our Users to  
understand how  
best to support  
competition and  
innovation in the  
energy sector

# Our plans

## This section explains our plans for the next four years.

These plans reflect the General Objectives defined in our licence and the Development Objectives set out in our Development Plan. We will ensure that we carry out all of our activities in compliance with the licence and the SEC.

Our plans and budgets reflect activities that we know we will need to carry out in the next four years. Due to our role in the energy sector, our services and our capabilities, it is likely that we will be asked to take on additional work during this period. However, where the scope and timing of additional work is highly uncertain, we have not included objectives or costs relating to new areas of work in this business plan.

The delivery of DCC Live marks a turning point for DCC. We are moving from implementing a complex solution to operating an industrial scale live service, as well as managing multiple programmes to deliver new services, all of which are crucial to the transformation of the energy sector.

This requires a shift in our activities and our ways of working. We will focus on the following priorities:

- Scaling the live service to support the rollout of smart meters, be responsive to solve any issues and be able to adapt and improve based on experience – to provide the best possible experience for our Users
- Establishing the enduring model for delivering change to the live service – to help realise the industry transformation made possible by smart meters

- Increasing our level of engagement with Users to understand evolving requirements and to increase the level of stakeholder involvement in decisions – to maximise the value of the service we deliver on behalf of industry

It is also important that we continue to build DCC's expertise and core capabilities over the coming years, including:

- Our knowledge of the real-life capabilities and performance of the live service – assumptions will be replaced with actual experience
- Our ability to successfully deliver change – both to introduce new services and to deliver efficiencies, performance improvements and enhancements to existing services, including managing multiple, concurrent programmes of work
- Our ability to provide increasing value for money for our Users and the consumer, including maximising value from our Service Providers

Our priorities and key milestones for the next four years are summarised in Table 2 in the Executive Summary and are explained in more detail below.

## Priorities for 2017/18

### **The live service: scalability and reliability**

Our top priority is to deliver a reliable smart meter communication service that scales to meet increasing User demand as the smart meter rollout progresses. We will deliver Release 1.3, which will provide the remaining functionality. We will focus on adapting DCC systems and processes and providing a consistent service that Users can rely on.

During 2017/18, we expect the rate of the rollout to increase. We will support Users in their day-to-day use of the DCC service, including bringing new Users on board, Communications Hub ordering and logistics, and resolving incidents. We understand that the stability of the live service is essential to supporting rollout at scale and enabling suppliers to meet their rollout obligations.

### **Learning from early experience**

Smart metering systems are spread across multiple organisations and supply chains and the service is based on a new specification. For the first time, Users will be connecting their systems with the DCC systems and communicating with meters in a real life environment. As a result, it is realistic to expect there will be some challenges during early life, despite the thorough and rigorous testing we have undertaken. We are keen to work with and support Users to find pragmatic ways to address any problems. We recognise the importance of regular communication with Users during this early period.

We will learn a huge amount during our first full year of operations and in particular, the period when the first 50,000 smart meters are installed. Our plans for scaling the service are currently based on assumptions about how Users will actually use the service. During 2017/18, our assumptions will be replaced with real life experience.

We will need to be flexible and use actual usage information to improve the service. To achieve this, we will carry out data analysis and diagnostics to identify recurrent problems

and understand how best to fix them. We will monitor key efficiency measures to support this, such as average call handling time and cost per transaction. We will also embed continuous improvement practices to support ongoing improvements.

It is critical that industry and consumers are confident that data is communicated securely. We will continue to monitor and maintain the DCC systems and share knowledge of risks and incidents with all of our stakeholders to support their own activities. We will continually improve our ability to identify anomalous activity within the system and ensure we are efficient in our incident recovery procedures. We will support all DCC programme activity and ensure that new functionality is designed and implemented appropriately and does not adversely affect the security controls within the system.

### **Dual Band Communications Hubs**

We currently expect to deliver the Dual Band Communications Hub no earlier than the first half of 2018. This will allow suppliers to install smart meters in premises where it is not possible to establish a viable HAN with a standard single band Communications Hub. The indicative delivery plan developed by the 868MHz Project Board will be confirmed once the full impact assessment is complete. Note that DCC is dependent on the delivery of v1.0 of the ZigBee standard to certify the Dual Band Communications Hub.

### **Establishing the enduring release delivery model**

Delivering change is central to DCC's role. Introducing enhancements and improvements to the live service will be crucial to enabling the industry transformation made possible by smart meters. Changes may be externally-driven, as a result of User requests (not affecting the SEC), policy decisions and SEC Modifications; or changes may be identified internally by DCC or our Service Providers.

Changes will be delivered through regular releases to the DCC service. The first release of changes to the live service will be delivered in November 2017 and will primarily deliver internal system changes and changes directed by BEIS. The first release to include changes resulting from SEC Modifications will be delivered no earlier than June 2018.

Establishing the enduring release delivery model is a priority for 2017/18 and we will carry out this work from early 2017. To ensure change is implemented successfully, we will need to work closely with industry and other stakeholders to prioritise the development and release of changes through appropriate governance. The release delivery model will need to be underpinned by internal processes that support overlapping development of multiple releases.

We are developing proposals for additional environments to support the enduring release delivery model. This is intended to allow Users to test changes and fixes to their systems and for DCC to develop and test multiple releases in parallel.

We are providing information to support the SEC's decision making on the SEC Panel Release Management Policy. Our input will set out options relating to release management approaches, together with the release capability, cost and risk associated with each option.

We will ensure appropriate commercial arrangements are in place with our Service Providers to support the enduring release delivery model. We will also strengthen the Systems Integrator capability to ensure robust management of integration of our Service Providers.

We will continue to engage in and support the SEC Modifications process on an ongoing basis.

### **Developing the smart meter communication service for SMETS1 meters**

Subject to Secretary of State direction following submission of our Feasibility Report, we will

commence work to develop the communication service for eligible SMETS1 meters. Our draft Feasibility Report sets out three implementation options with estimated timescales. Based on these options, we expect to focus on two key areas of activity in 2017/18:

- Establishing commercial relationships with Service Providers. This is likely to be a combination of procuring new Service Providers, negotiations to enter into commercial relationships with Service Providers who are already supporting the eligible SMETS1 meters and impact assessment of changes with our existing Service Providers. We will seek to ensure value for money in any new or revised commercial arrangements
- Overseeing the design, build and test of the SMETS1 Service

### **Supporting Ofgem's Switching Programme**

Based on the indicative timeline included in the draft DCC Switching Business Case, and subject to further joint planning between DCC and Ofgem, we currently expect that during 2017/18 we will:

- Contribute to multiple Switching Programme workstreams, including business process design, delivery strategy and commercial, to support the design and implementation planning of faster and more reliable switching arrangements
- Undertake a multi-phase design proving exercise to inform the detailed end to end specification of switching arrangements. This activity is intended to identify any issues or areas for improvement within the design so that they can be resolved at an early stage, when they are less costly to fix
- Prepare for procurement of the CRS, including developing the Procurement Plan and carrying out market engagement activities

- Develop and agree with Ofgem the principles and necessary details of fair and satisfactory Price Control arrangements for future phases of the Switching Programme. Note that DCC's involvement in those future phases will be subject to further amendments to DCC's licence

### Engaging our Users

As we move into operating an industrial scale live service as well as delivering a series of major programmes and system updates, we recognise that open communication with our Users and other stakeholders will be crucial.

We will take a consultative approach to decision-making, in particular involving industry more closely in discussing potential trade-offs between factors such as cost, quality of service, time and scope. We recognise that decisions will have an impact on different types of Users and on consumers and that we need to take these impacts into account. To support this we will build on the level of information we share so that Users can more easily inform the choices we make.

We will engage with our Users to understand evolving requirements, including those driven by emerging policy developments, to understand how DCC can best support competition and innovation in the energy sector. This will include engaging on emerging areas such the move to mandatory half-hourly settlement, supporting demand side response and the move to a smarter, more flexible energy system.

### Providing value for money

DCC's centralised position is intended to make us a cost-effective route for resolving industry problems. We are designed to be a source of simplification and harmonisation in the energy sector, enabling the industry to provide better services and reduce costs.

Users expect DCC to provide ongoing value for money. As explained above, we will aim to identify and implement efficiencies based on early experience in operating the live service. We also intend to increase the ratio

of permanent to contractor staff as our activities relating to SMETS2 become more stable and predictable.

The vast majority of DCC's costs relate to our Service Provider contracts. During 2017/18, we will focus on the following priorities in relation to our Service Providers:

- Agreeing fixed plans for the delivery of the November 2017 release and a further release in 2018
- Agreeing an acceptable plan and price for the introduction of a Dual Band Communications Hub
- Putting in place appropriate commercial arrangements to support the enduring release management delivery model
- Strengthening the Systems Integrator capability to ensure robust management of integration of our Service Providers
- Enhancing our partnerships with all Service Providers, and welcoming new Service Providers as required for the SMETS1 programme

We will look to refinance some existing charges, at lower rates, so as to reduce DCC costs. We will also explore new sources of funding to deliver new projects at a lower cost of finance.

During 2017/18 we will also work towards establishing the enduring economic regulation arrangements for DCC, focusing on the Operational Performance Regime and the Price Control regime.

The early period of live operation will provide us, for the first time, with data on the actual usage and performance of the live service. We will monitor this closely against the service levels set out in the interim Operational Performance Regime, which is subject to Ofgem consultation<sup>7</sup>. We will report on our performance to our Users. During 2017/18 we will work with

<sup>7</sup> [www.ofgem.gov.uk/publications-and-updates/dcc-operational-performance-regime-final-proposals](http://www.ofgem.gov.uk/publications-and-updates/dcc-operational-performance-regime-final-proposals)

Users and Ofgem to develop proposals for the enduring Operational Performance Regime and a set of additional performance measures that will be valuable to Users.

We will consider the options for alternative Price Control arrangements and the timescales for introducing any new arrangements.

## Priorities and key milestones: 2018/19 – 2020/21

### Smart meter communication service for SMETS2 meters

#### Operating the live service

In 2018/19, we expect the smart metering rollout will have reached full momentum, with tens of thousands of meters being installed every day. After more than a year of live operations, our service will be stable and dependable. We will be considering our technology strategy to inform the future development of the service.

By 2019/20, the DCC service will be supporting tens of millions of smart meters as the rollout nears completion in 2020. By this time we will increasingly focus on improving how we provide services, based on our operational experience of the previous two years. We will improve the performance of the DCC systems and processes by carrying out data analytics to identify improvement opportunities. Performance improvements should reduce DCC unit costs as well as User unit costs, for example by reducing the time an installer has to wait for messages to be received by the smart meter during installation.

#### Extending the reach of the network

##### Smart Meter Wide Area Network

During 2018/19, our Communication Services Providers will be approaching maximum contracted Smart Meter Wide Area Network (SMWAN) coverage levels across Great Britain. We will be working on how to extend coverage in a cost effective way to the remaining properties that do not have a signal. By 2021, our Communication Services Providers will have delivered the maximum contracted coverage levels of at least 99.5% in the North

Region and at least 99.25% in the Central and South Regions.

#### Home Area Network

We will also make any changes required to support any alternative HAN solutions being developed by industry. These will enable a HAN to be established in the remaining premises where a standard or Dual Band Communications Hub is not suitable.

#### Delivering change

By 2018/19 we expect to have a growing pipeline of enhancements, performance improvements and efficiencies. These will include change from external sources, such as SEC Modifications, as well as internally-identified changes to improve the quality and responsiveness of the services we offer. We will introduce new functionality and efficiency improvements through our release based approach to change. We will also consider how to refresh the technology of the DCC systems and infrastructure.

It is crucial that DCC adapts to support the evolving needs of the energy industry and to encourage further innovation and competition in the sector. The volume and type of new functionality that Users wish us to build will depend on several factors, in particular how energy suppliers choose to develop their products and offerings. Innovative consumer technology that connects to the Communications Hub could also influence User demand for new functionality.

### Smart meter communication service for SMETS1 meters

Subject to a Secretary of State direction following submission of the Feasibility Report, we expect

that we will deliver Initial Operating Capability for eligible SMETS1 meters during 2018/19.

Depending on the implementation option directed by the Secretary of State, we expect to deliver Full Operating Capability between 2019 and 2020 and subsequently to operate a reliable communication services to support enrolled SMETS1 meters.

### **Support Ofgem's Switching Programme**

Based on the indicative timescales set out in the draft DCC Switching Business Case, we expect that during 2018/19 we will develop the technical specification for the CRS, based on the design work led by Ofgem during the Detailed Level Specification phase. The technical specification will form the basis for our procurement of the CRS.

We expect to complete our preparations for procuring CRS capability during 2018/19 and to complete the procurement during 2019/20. Subject to licence changes and the agreement of appropriate Price Control arrangements to enable DCC to participate in the Design, Build and Test and Live Operations phases, we will also mobilise for implementation.

### **Engaging our Users**

Over the coming years we will continue to engage with Users and the wider energy sector

to understand evolving requirements, identify the problems and opportunities we should be addressing and identify how best to manage them. This may lead us to introduce new functionality and enhancements to our existing services and to develop new services to support competition and innovation in the energy sector.

Over time, we intend to play a more facilitative role with Users and other stakeholders and create a forum for discussions to help shape the smart transformation of the energy sector.

### **Providing value for money**

We aim to maximise the value of DCC services and activities to the energy sector, including ensuring our costs are economic and efficient. We expect that improvements and efficiencies will further reduce the unit costs of DCC services over time.

During 2018/19, the enduring Operational Performance Regime will come into effect. We will work with Users to continue improving the performance reporting that we provide. We will also agree the financing arrangements for the next tranche of Communications Hubs.

During 2019/20, we will consider our future commercial strategy, including our approach to re-procuring the Data Services Provider in 2021.



# Financial summary

## Overview

This business plan reflects the four year outlook of expected charges relating to DCC's internal operational activities, external Service Provider agreements and other adjustments.

These charges relate to the design, delivery and operational activities of:

- The smart meter communication service for SMETS2 meters (including Dual Band Communications Hubs)
- The smart meter communication service for SMETS1 meters
- Supporting Ofgem's Switching Programme

The financial information is aligned with the latest Indicative Charging Statement and Indicative Budgets at the time of writing. In addition, we have provided an outlook of the expected charges for RY 2020/21<sup>8</sup>.

The periods covered in this business plan are:

- RY 2017/18 – aligned to the Indicative Charging Statement published on 9 January 2016; these charges will come into effect from April 2017
- RY 2018/19 and RY 2019/10 – aligned to the Indicative Budget published on 9 January 2017
- RY 2020/21 – outlook of expected charges; this will be formally revised in the Indicative Budget published in April 2017

The plan reflects the profile in which DCC will invoice Service Charges to Users, rather than the profile in which DCC incurs costs.

The Indicative Charging Statement and Indicative Budgets are published on a quarterly basis, following a review of our ongoing activities and future plans. To support this, we carry out a monthly review of internal activities and ongoing reviews of external Service Provider activities. These reviews generate a four-year outlook of our planned activities and associated costs.

This section outlines the expected cost of internal and external activities as well as adjustments due to Price Control, Pass-Through Costs, the Prudent Estimate and Correction Factor. These costs are recovered from suppliers and networks through fixed charges based on market share data. We generate fixed charges by converting the total cost for the year into specific unit costs (per meter per month) for each of the predefined Charging Groups.

Costs associated with delivering Communications Hubs will be recovered from suppliers through Communications Hub Fixed Charges based primarily on the number of smart meters enrolled with DCC. For specific services for individual User consumption, costs are recovered through Explicit Charges. These include remote test labs, Gateway Connections and some peripheral Communications Hubs services such as aerials and Communications Hubs for testing. Full details of DCC's charges are set out in the latest Indicative Charging Statement.

<sup>8</sup> All figures included in financial tables are rounded to the nearest £100,000

We aim to  
maximise the value  
of DCC services  
and activities to  
the energy sector

## Scope

This section sets out the costs included and excluded from the budgets.

DCC's cost structure consists of items termed as Regular Activity and other adjustments allowed under the conditions of our Licence.

### Regular Activity

#### Internal Operations

These costs reflect the functional activities carried out within DCC. The main drivers behind internal operational costs relate to the headcount, systems and operational activities of Smart DCC Ltd.

#### Fundamental Service Providers

DCC contracted with the Fundamental Service Providers (the Data Services Provider and Communication Services Providers) when we were awarded the licence. These costs relate to the planning, design, implementation and operation of the core components of the smart meter communication service. These costs account for original base contracts and subsequent changes that are agreed with each Service Provider. In addition, we have included provisions for future activities to deliver enhancements to the smart meter communication service for SMETS2 meters as well as indicative forecast costs relating to the smart meter communication service for SMETS1 meters.

The costs of Communications Hub orders that are forecast to be delivered in each regulatory year to Service Users are also captured in this line. These costs relate to the development and delivery of the Communications Hubs by the Communication Services Providers. The profile of Communications Hub costs is based on the latest available rollout forecast that is received from each User.

#### Relevant Service Providers

DCC has procured additional External Service Providers to deliver key systems such as the Smart Metering Key Infrastructure Service, Parsing and Correlation Service, Service Centre, billing platform, and business intelligence and management information systems.

#### Adjustments

We include a number of adjustments in our charges. These are:

**Pass-Through Costs** – These are costs incurred by Ofgem, the Smart Energy Code Company Ltd and AltHanCo for activities associated with smart metering and Alternative HAN activities. DCC's charging mechanism is used as a vehicle to pass these costs to Users.

**Correction Factor** – This is an adjustment to account for the over or under-recovery of charges for prior years. This is the difference

Cost Summary - £m	Charging Statement			Indicative Budgets		
	2016/17	2017/18	Variance	2018/19	2019/20	2020/21
Internal Operations	36.4	51.2	14.8	46.2	46.4	43.2
Fundamental Service Providers (1)	185.1	192.9	7.9	219.7	252.8	279.0
Communications Hubs	0.5	12.4	11.9	49.3	68.9	110.9
Relevant Service Providers (2)	6.0	4.2	-1.8	4.2	4.2	4.1
<b>Total Regular Activity</b>	<b>228.0</b>	<b>260.7</b>	<b>32.7</b>	<b>319.4</b>	<b>372.3</b>	<b>437.3</b>
Adjustments (3)	11.3	31.0	19.6	19.2	17.1	15.5
<b>Total Charges</b>	<b>239.3</b>	<b>291.7</b>	<b>52.4</b>	<b>338.6</b>	<b>389.3</b>	<b>452.7</b>

1) Fundamental Service Providers - Data Services Provider, Communication Services Providers

2) Relevant Service Providers - Trusted Service Provider (SMKI provider), Parse and Correlation Service Provider, Enterprise Systems Service Provider.

For the Charging Statement, these costs are shown within the Internal cost lines.

3) Adjustments are made up of Prudent Estimate, Pass Through, Correction Factor, Margin

Table 3 – Summary profile of expected charges and budgets

between what DCC has charged and the costs DCC has actually incurred. We forecast a balancing figure when the Charging Statement is finalised and the actual Correction Factor is finalised after the end of the Regulatory Year.

**Prudent Estimate** – The prudent estimate provides DCC with operating liquidity to ensure we remain cash positive and can meet our ongoing financial commitments. DCC will return any surplus in the prudent estimate to Parties through the Correction Factor.

**Other Charges** – These charges consist of:

- **Baseline Margin** – The amount of additional revenue, over and above the sum of DCC's internal and external costs, that is included in the Licensee's Allowed Revenue

- **Baseline Margin Adjustment** – This represents DCC's adjustment for allowed incremental margin for activities outside of the original Baseline Margin Values
- **Price Control Adjustments** – These account for the cost of activities that have been amended or disallowed following Ofgem's Price Control determination
- **External Contract Gain Share** – an upward adjustment to the amount of the Licensee's Allowed Revenue that reflects a part of a reduction in External Costs resulting from amendments to the External Service Provider contracts

### Exclusions

We have not included costs relating to the areas in Table 4.

Excluded cost area	Rationale
External costs associated with the Centralised Registration Service	The scope and shape of the Centralised Registration Service has yet to be defined
Costs for activities beyond the Transitional Phase of the Switching Programme	The scope of DCC's role is yet to be defined and is subject to amendments to DCC's licence and the agreement of appropriate Price Control arrangements
Costs or benefits associated with delivering Value Added Services	There are no current indications of the likely scope, timing or scale of potential Value Added Services
Financing for subsequent tranches of Communications Hubs	The financing arrangements for the first tranche of Communications Hubs are in place. Beyond this point further financing will be required – we currently expect this will be in place by mid-2018

Table 4 – Excluded cost areas

Cost Summary by Programmes - £m	Charging Statement 2017/18	Indicative Budgets		
		2018/19	2019/20	2020/21
SMETS2 Delivery and Operations	264.7	269.1	268.4	282.1
Communications Hubs	12.4	49.3	68.9	110.9
SMETS1	5.1	12.2	46.0	59.7
Switching	9.5	8.0	6.0	0.0
<b>Total Charges</b>	<b>291.7</b>	<b>338.6</b>	<b>389.3</b>	<b>452.7</b>

Table 5 – Summary profile of expected charges and budgets by programme

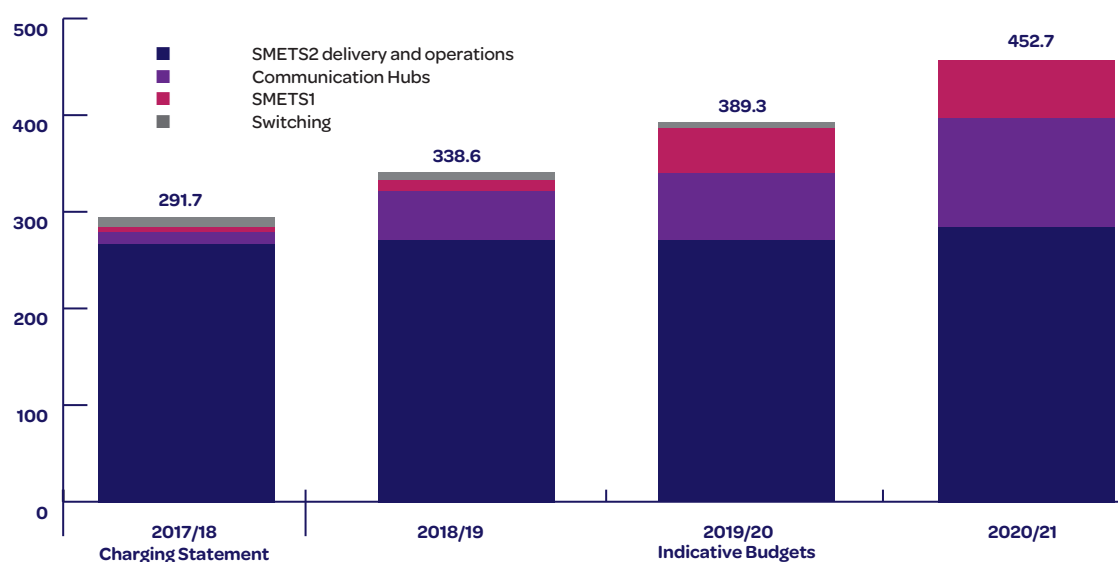
## Cost Summary

The total projected cost of DCC Services through this period is shown in Table 3.

Table 5 summarises DCC's projected costs across the three key programmes of activity we are currently undertaking. The majority of the costs relate to the smart meter communication service for SMETS2 meters. The increase in RY 2017/18 reflects the peak of delivery activities in the year in which the DCC Service becomes fully operational. The projected volume of orders for Communications Hubs will become a key factor in the significant increase of future year's costs from £12m in RY 2017/18 to £111m in RY 2020/21. In addition, forecasts include expected costs relating to the introduction of

the Dual Band Communications Hub and the delivery of future releases. Note that until the enduring delivery release model is agreed there is a degree of uncertainty relating to the cost of future releases.

Costs relating to the smart meter communication service for SMETS1 meters are forecast to increase from RY 2019/20 onwards as we expect to take on additional Service Provider contracts and make changes to existing Service Provider contracts. These costs are only indicative and subject to a Secretary of State direction following submission of our Initial Enrolment Project Feasibility Report.



Graph 1 – Breakdown of DCC's costs by Programme

Internal Operations Costs - £m	Charging Statement			Indicative Budgets		
	2016/17	2017/18	Variance	2018/19	2019/20	2020/21
Staff Payroll Costs	17.0	32.1	15.1	32.4	31.8	31.0
Contractor Costs	12.2	2.1	-10.1	0.6	0.3	0.1
Consultants Costs	3.9	7.8	3.9	3.1	3.6	2.3
Other Staff Costs	1.2	2.8	1.6	2.8	3.0	2.8
IT and Systems Costs	2.1	6.4	4.3	7.3	7.7	7.1
<b>Total Internal Operations Costs</b>	<b>36.4</b>	<b>51.2</b>	<b>14.8</b>	<b>46.2</b>	<b>46.4</b>	<b>43.2</b>

Table 6 – Internal Operations Costs

Costs relating to DCC's role in supporting the Switching Programme reflect the indicative programme budget set out in the draft DCC Switching Business Case, which is subject to consultation at the time of writing. The DCC cost of this programme is forecast as £30.1m with £6.6m of activities expected to be delivered in RY 2016/17. No costs relating to the Switching Programme are included in RY 2020/21, as activities beyond the Transitional Phase would be subject to further licence amendments.

The tables and commentary below explain the cost profiles in more detail.

### Internal Operations Costs

The majority of Internal Costs pay for the permanent staff and contractors who work in DCC. Internal Costs are summarised in Table 6.

Table 7 provides a breakdown of Internal Costs by programme in RY 2017/18.

Headcount is set to peak during 2017 as we manage the delivery of the remaining functionality via Release 1.3 while also ramping up operational resources to support the live service. Beyond RY 2017/18, the headcount supporting the smart meter communication service for SMETS2 will stabilise as we transition into enduring live operations. In parallel, we expect to increase the level of resource assigned to delivering the smart meter communication service for SMETS1 and supporting Ofgem's Switching Programme.

DCC uses consultancy services to provide specialist expertise and independent assurance across programme, finance and commercial

Internal Costs RY 2017/18 - £m	SMETS2 inc DBCH	SMETS1	Switching	Total
Resource Costs	28.4	2.6	3.3	34.3
Consultants Costs	5.9	-	1.9	7.8
IT and Other Systems Costs	7.6	0.5	1.0	9.2
<b>Total Internal Operations Costs</b>	<b>41.9</b>	<b>3.2</b>	<b>6.2</b>	<b>51.2</b>

Table 7 – RY 2017/18 Internal Operations Costs by Programme

Fundamental Service Provider Costs - £m	Charging Statement			Indicative Budgets		
	2016/17	2017/18	Variance	2018/19	2019/20	2020/21
External Setup	139.0	110.0	-29.0	90.0	70.5	64.6
External Operations	36.5	51.5	15.0	62.5	73.4	83.1
Performance Incentives	8.1	-	-8.1	-	-	-
Inflight Changes	-	6.5	6.5	5.0	5.0	4.6
Future Release Provisions	-	2.2	2.2	12.9	22.9	33.1
New Programmes (1)	-	2.0	2.0	24.3	58.5	72.6
Impact Assessment/Projects	1.5	4.3	2.8	4.3	4.0	4.0
Other	-	16.4	16.4	20.5	18.5	17.0
Communications Hubs	0.5	12.4	11.9	49.3	68.9	110.9
<b>Total Fundamental Service Providers</b>	<b>185.6</b>	<b>205.3</b>	<b>19.7</b>	<b>269.0</b>	<b>321.7</b>	<b>389.9</b>

1) New Programmes - DBCH, SMETS1 and Switching programmes

Table 8 – Fundamental Service Provider Costs

streams. The selection and procurement of consultancy services is governed by DCC's Procurement Strategy<sup>9</sup>.

Other Staff Costs include training, recruitment, travel and subsistence. The IT and Systems costs relate to the cost of computer systems and equipment that DCC staff use in their daily operations.

### Fundamental Service Provider Costs

The costs set out in Table 8 relate to Fundamental Service Provider activities as they plan, design, build, test, integrate and operate components of the smart meter communication service for SMETS2 meters, including the Dual Band Communications Hub. The Data Services Provider develops and operates the data services that direct and schedule the messages that are sent across the network. The Communication Services Providers develop and operate the nationwide communications network and also provide the Communications Hubs that are installed in the home alongside the smart meters and the In-Home Display.

External Setup costs relate to the design and implementation of systems, infrastructure and processes. The cost profile for these activities reflects the original Service Provider contracts under which live operation was set to commence in October 2015 as well as contract changes since the contracts were awarded in 2013. Payments for these costs are aligned to specific milestones agreed with each Service Provider and the repayment profile that is agreed for each activity.

External Operational costs cover the ongoing operation and maintenance of the service. Over the period of the rollout, operational costs are set

to increase as we support a growing number of meters and messages.

Performance Incentives relate to payments agreed with Service Providers for achievement of key milestones in line with contracted terms.

Inflight Changes relate to Change Requests that are agreed and in the assessment, delivery or authorisation phase of the change management process. As these activities are finalised and authorised, the costs will move across to Setup and Operational lines.

Future Release Provisions relate to expected costs of new activities that are planned to be delivered through the enduring release delivery model over the coming years.

Costs for New Programmes relate to expected external costs associated with the delivery of the smart meter communication service for SMETS1 meters (subject to Secretary of State direction) and the introduction of the Dual Band Communications Hub.

Impact Assessment and Projects costs reimburse Service Providers for producing detailed resource breakdowns and activity plans for impending contract changes and for undertaking specific projects. We have included provision for impact assessments and projects based on the previous history of changes agreed and our current best estimate of the volume of change in future years.

Communications Hub costs relate to the development and delivery of the Communications Hubs by the Communication Services Providers. The profile of Communications Hub costs is based on the latest available rollout forecasts.

Relevant Service Provider Costs - £m	Charging Statement			Indicative Budgets		
	2016/17	2017/18	Variance	2018/19	2019/20	2020/21
<b>Total Relevant Service Providers</b>	<b>6.0</b>	<b>4.2</b>	<b>-1.8</b>	<b>4.2</b>	<b>4.2</b>	<b>4.1</b>

Table 9 – Relevant Service Provider Costs

9 [www.smartdcc.co.uk/media/410997/dcc\\_procurement\\_strategy\\_v\\_5.0.pdf](http://www.smartdcc.co.uk/media/410997/dcc_procurement_strategy_v_5.0.pdf)

We will continue improving and developing our services for Users to provide the best possible smart experience to their customers



Adjustments - £m	Charging Statement			Indicative Budgets		
	2016/17	2017/18	Variance	2018/19	2019/20	2020/21
Margin	2.1	5.2	3.1	3.8	3.3	2.0
Pass-Through	5.2	13.9	8.6	15.4	13.7	13.5
Correction Factor	-9.1	-2.7	6.4	0.0	0.0	0.0
Prudent Estimate	13.1	14.6	1.5	0.0	0.0	0.0
<b>Total Adjustments</b>	<b>11.3</b>	<b>31.0</b>	<b>19.6</b>	<b>19.2</b>	<b>17.1</b>	<b>15.5</b>

Table 10 – Adjustments

Note that no external costs relating to the Centralised Registration Service are included in these forecasts.

### Relevant Service Provider Costs

Relevant Service Provider costs relate to the delivery and operation of other DCC systems including the Smart Metering Key Infrastructure Service provided by BT, the Parsing and Correlation Service provided by Critical Software, and the Service Centre, Billing system, and business intelligence and management information systems provided by Capita. The costs reflect the milestone payments for finalising the delivery of these systems and subsequent operational costs for future years. These costs are summarised in Table 9.

### Adjustments

Adjustments are summarised in Table 10. For RY 2017/18 DCC has received notifications of £7.9m Pass-Through Costs from Smart Energy Code Company Ltd, £6.0m from AltHanCo for work associated with delivery of Alternative Home Area Network and nil from Ofgem.

The forecast Correction Factor for RY 2017/18 is a return of £2.7m to Users. This consists of a final under recovery balance of £2.4m for RY 2015/16 and forecast outturn over recovery of £5.1m for RY 2016/17.

For RY 2017/18 the Prudent Estimate is £14.6m. This represents three weeks of average working capital charge relating to the SMETS2

programme, calculated as a proportion of Regular Activities across all its projects.

In RY 2017/18, the amount of Baseline Margin is £5.2m. This represents margin and gain share associated with the delivery of the smart meter communication service for SMETS2 meters, forecast margin for our role in the Switching Programme and adjustments made as a result of Ofgem direction. In addition, in July 2016, DCC applied to adjust the External Contract Gain Share term to reflect a reduction in External Costs which DCC helped to achieve through refinancing of baseline contracts and changes agreed to date. In November 2016, Ofgem proposed to accept DCC's application to adjust the External Contract Gain Share term. This is subject to a final direction by Ofgem in February 2017.

## Getting in touch

We would be delighted to hear your views or questions about the DCC business plan.

Please contact us at  
[contact@smartdcc.co.uk](mailto:contact@smartdcc.co.uk)

# Appendix A

## Key components of the smart meter communication service for SMETS2 meters

### Communications Hubs

Our Communication Services Providers provide Communications Hubs to connect the smart meter, In-Home Display and other smart devices in homes to the DCC smart metering network. Suppliers order the Communications Hubs from DCC and install them along with the smart metering equipment they procure themselves. DCC's Communications Hub services include supporting Users to submit forecasts and orders for Communications Hubs. We also provide operational support through the DCC Service Centre, for example to resolve incidents relating to Communications Hubs.

We will also introduce a Dual Band Communications Hub which will allow suppliers to install smart meters in a greater proportion of properties across Great Britain.

### Messaging services

We provide the data and communications service that allows Users to send and receive service requests, service responses and alerts to and from smart meters. This will include 115 Service Requests, 46 DCC Alerts and 165 Device Alerts. Messages can be scheduled to be sent at a particular time, or can be sent on an ad hoc basis. DCC transmits messages over a nationwide secure telecommunications network that will provide coverage to 99.5% of domestic premises in the north of England and Scotland and 99.25% coverage in central and southern England and Wales by the end of 2020.

### End-to-end security

To ensure secure end-to-end communications with devices in the home, DCC provides the SMKI Service. DCC also provides a Parsing and Correlation Service which enables Users to

convert messages from one format into another and ensure that the message has the same meaning after it has been converted.

All messages containing energy consumption data are encrypted. DCC does not store, analyse or have access to consumption data.

### User Entry Services

To support organisations to become Users, we provide User Entry Services. These services include ordering and configuring DCC Gateway Connections that allow Users to communicate securely with DCC systems, testing activities and registration for Key Infrastructure services.

### Testing Services

DCC provides testing services so that organisations can become authorised Users and test that their own systems can communicate with meters via the DCC network. While some testing is mandatory for Users, such as User Entry Process Testing, some other testing services are optional and allow Users to test the interoperability of different types of meters and to test their end-to-end business processes with DCC systems. To reduce the level of integration risk, we have also provided a Great Britain Companion Specification (GBCS) Integration Testing (GIT) tool to industry. This allows meter manufacturers to test that they have implemented GBCS in a way that is consistent with how DCC's Service Providers have implemented the specification.

### Operational support

DCC provides a Service Centre and self-service tools to support Users in their day-to-day use of the smart meter communication service. The Service Centre is already in place and supporting

Users. Operational support for the live service includes order management to ensure Users have the equipment they need to install and incident management to support Users to resolve any issues as quickly as possible. The operation is responsible for ensuring Users receive the best possible service from DCC.

### **Our Service Providers**

To deliver these services, we have contracts with two Communication Services Providers, Arqiva and Telefonica, and a Data Services Provider, CGI. Arqiva provides the network infrastructure

in the north of England and Scotland, while Telefonica provides the network across central and southern England and Wales. Telefonica and Arqiva also provide the Communications Hubs that are installed in the home alongside the smart meters and the In-Home Display. CGI provides the data services that direct and schedule the messages that are sent across the network.

BT delivers the SMKI Service and Critical Software provides a Parsing and Correlation Service. Capita IT Enterprise Services provides enterprise systems to support DCC's operations.

