



# Moving to reliable and fast switching

## Target Operating Model and Delivery Approach v2

**Publication date:** 17 November 2015

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### Overview:

We are leading a programme of work to deliver fast and reliable switching for consumers by 2019.

This document sets out our updated Target Operating Model and delivery approach.

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## Context

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We want to use the opportunities provided by the roll-out of smart metering to make the switching process faster and more reliable for consumers, open up opportunities for time-of-use tariffs and demand-side response, and improve consumer protection (especially for vulnerable consumers), as we move to a more sustainable economy.

Our work on switching builds on the Retail Market Review reforms to make the market simpler, clearer and fairer for consumers and increase engagement. It also supports our March 2014 State of the Market assessment which found that competition, including the switching process, is not working as well as it could for households and small businesses.

We have launched a significant code review and are starting the industry workgroups to design the new switching arrangements. This supports the commitment we made in our Forward Work Programme 2014/5 and 2015/16 to develop the programme to move to next-day switching, and commence work on this important area.

## Associated documents

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- Moving to reliable and fast switching: updated Target Operating Model and Delivery Approach: Decision. Ofgem, 17 November 2015  
<https://www.ofgem.gov.uk/publications-and-updates/moving-reliable-and-fast-switching-updated-target-operating-model-and-delivery-approach>
- Moving to reliable and faster switching: Switching Significant Code Review launch statement and request for expressions of interest to participate in Programme workgroups. Ofgem, 17 November 2015  
<https://www.ofgem.gov.uk/publications-and-updates/switching-significant-code-review-launch-statement-and-request-expressions-interest-participate-programme-workgroups>
- *Moving to reliable next-day switching: Decision*. Ofgem, 10 February 2015  
<https://www.ofgem.gov.uk/publications-and-updates/decision-moving-reliable-next-day-switching>
- *Moving to reliable next-day switching: Target Operating Model and Delivery Approach: Consultation*. Ofgem, 10 February 2015  
<https://www.ofgem.gov.uk/publications-and-updates/target-operating-model-reliable-next-day-switching>
- *Moving to reliable next-day switching: Consultation*. Ofgem, 16 June 2014  
<https://www.ofgem.gov.uk/publications-and-updates/moving-reliable-next-day-switching>

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# 1. Introduction

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1.1. On 10 February 2015 we published our decision to introduce reliable next-day switching utilising a Centralised Registration Service (CRS) to be procured, and run by, the Data and Communications Company (DCC).<sup>1</sup> This will be delivered through a programme of work led by Ofgem (“the Switching Programme”).

1.2. Alongside our decision, we consulted on version 1 of a Target Operating Model (TOM) for the new switching arrangements. We are now publishing version 2 of the TOM which follows our review of consultation responses and further discussion with industry. The main changes we have made to the TOM are to refine the scope and to clarify questions on roles and responsibilities and how some processes are expected to operate. We have also added a new section (Section 5 Consumer Journey) which describes how we want consumers to be able to experience the new switching arrangements.

1.3. The TOM describes, at a high level, how new business arrangements to support switching are expected to operate. Its purpose is to act as a guide and reference document and will be maintained as the more detailed arrangements are developed. It includes:

- The requirements for a reliable next-day switching process, including market design and governance arrangements.<sup>2</sup>
- The requirements for the CRS.
- The delivery approach to successfully establish a CRS and implement the new switching arrangements.

1.4. Our February 2015 decision document sets out the reasons why these new operational requirements are needed.

1.5. In developing the TOM we have taken account of responses to our June 2014 consultation on Moving to Reliable Next-Day Switching<sup>3</sup> and the output of industry discussions at the Change of Supplier Expert Group (COSEG).<sup>4</sup>

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<sup>2</sup> In our February 2015 decision document we said that we would examine “next-day” and “two-day” switching. We think that from a consumer’s perspective both of these options are covered by the idea of next-day switching.

<sup>3</sup> <https://www.ofgem.gov.uk/publications-and-updates/moving-reliable-next-day-switching>

<sup>4</sup> COSEG was established in 2013 to progress switching developments with industry and relevant stakeholders. A summary of findings can be found here: <https://www.ofgem.gov.uk/publications-and-updates/summary-findings-change-supplier-expert-group-coseg>

1.6. Developing more detailed proposals will be an iterative and collaborative process, requiring the active participation of a wide range of stakeholders. Our February 2015 decision document describes, at a high level, how we will operate the Switching Programme to deliver the new switching arrangements. We have, at the same time as publishing this updated TOM, also published a Significant Code Review (SCR) Launch Statement.<sup>5</sup> This launch statement provides further details on how the Switching Programme will operate.

1.7. The design of the new switching process and CRS will develop through the lifetime of the Switching Programme by delivering products that describe this design.<sup>6</sup> As we progress through the Switching Programme, these design products will progress from high level in the first phase of work (the Blueprint phase) to more detailed specifications that will be consulted on, and ultimately become part of the industry governance. We will develop Design Principles to assist this process and drive the definition and evaluation of the design.

1.8. We will define a series of design baselines through the lifetime of the Switching Programme to deliver a consolidation of all of the design products at a particular time as a point of reference (e.g. for stakeholder consultation; collecting data for our impact assessment; or for DCC to contract CRS provider(s) against).

1.9. This is the second version of the TOM to be published and we anticipate that there will be further published versions during the Switching Programme to align with the publication of design baselines.

1.10. Where we have identified likely solutions through discussions at COSEG and industry groups to date, we have incorporated these within this version of the TOM. Elsewhere, we have framed the TOM in terms of the overall requirements that will need to be developed.

1.11. At the end of this document we have provided a glossary.

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<sup>5</sup> <https://www.ofgem.gov.uk/publications-and-updates/switching-significant-code-review-launch-statement-and-request-expressions-interest-participate-programme-workgroups>

<sup>6</sup> Examples of products include a CRS Requirements Specification and Switching High Level Process Maps.

## 2. Objective and scope

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2.1. The objective of the Switching Programme is to: *"improve customers' experience of switching, leading to greater engagement in the retail energy market by designing and implementing a new switching process that is reliable, fast and cost-effective. In turn this will build consumer confidence and facilitate competition, delivering better outcomes for consumers"*. To do this we have established the Switching Programme to deliver the necessary changes.

2.2. The scope of the Switching Programme is the arrangements required to deliver reliable next-day switching for consumers using a new CRS which is procured by the Data and Communications Company (DCC).

2.3. Our primary objective for these reforms is to create new reliable and fast switching arrangements. Our ambition is for consumers to be able to switch the next day. The detailed design of the new arrangements is still uncertain. From a consumer's perspective, next-day switching could include a range of timescales, from agreeing to switch and being with the chosen supplier at the beginning, to the end, of the next day. During the Blueprint Phase, we will assess which approach would provide the best overall outcome for consumers including opportunities to move to next-day switching in stages, once the new centralised systems are put in place.<sup>2</sup>


2.4. We will consider all parts of the switching process from the point when a consumer enters into a contract with a new supplier,<sup>7</sup> until they have received a closing bill from their old supplier and an opening bill from their new supplier or have exercised any right to cool-off, cancel the contract and return to the previous supplier.

2.5. The scope includes:

- Changes to the regulatory framework to facilitate a new CRS, covering all supply points connected to gas and electricity distribution networks, and decommissioning the existing registration services run by electricity and gas networks. This will include DCC price control and CRS charging arrangements.
- Reviewing any remaining network licence obligations linked to registration, including requirements to supply data or to provide enquiry services.

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<sup>7</sup> This includes access to supply point data, by consumers and market participants, which can facilitate entering into a contract and the reliability, timeliness and efficiency of the switching process.



## Moving to reliable and fast switching

- Developing the requirements for a CRS that will provide registration services for the gas and electricity market and the data to support market functions, including energy settlement and network charging.
- Facilitating reforms to the switching process for all domestic and non-domestic gas and electricity consumers (with the exception of those consumer types detailed below) to deliver reliable next-day switching.<sup>8</sup>
- Harmonising the switching arrangements between the gas and electricity markets, where possible, taking into account differences in market requirements.
- Defining and executing a transition and implementation scheme for the CRS and new switching arrangements.
- Implementing the new CRS arrangements with all relevant industry parties who will operate in the new environment.
- Delivering a consumer awareness campaign.<sup>9</sup>


### 2.6. The scope excludes:

- The initial consumer acquisition activities, eg marketing, before the point when a consumer enters into a contract.
- Defining new rules or requirements for how suppliers bill their consumers. But it should ensure that the new arrangements support suppliers in meeting their requirements for timely and accurate billing.
- Security keys are designed and built into smart meters as part of the smart metering installation and roll-out. Transitional arrangements reliant on the DCC exist to support changing the keys to the new supplier during the main installation stage. For the long term however, an enduring change of supplier process which places reliance on energy suppliers is being considered by the Smart Metering Implementation Programme led by the Department of Energy and Climate Change. The CRS will support the new arrangements when they are implemented.
- The switching arrangements for consumers that are directly connected to the national electricity and gas transmission networks. These operate bespoke switching arrangements, and we are focusing on the arrangements for the majority of consumers.

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<sup>8</sup> This includes the switching arrangements for unmetered electricity sites, and licence exempt sites/suppliers.

<sup>9</sup> The consumer awareness campaign is not expected to require changes to industry codes. It is therefore within scope of the Switching Programme but not the SCR.



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- Ofgem’s review of objections. This work is being progressed as a separate project. As described in Ofgem’s 2015-16 Forward Work Plan, we are reviewing the objections process. This will include whether to improve current arrangements so that consumers in debt can get the best deal more easily, while ensuring suppliers are able to take appropriate steps to have debt repaid. The outcome of this work is important to the switching process and will feed into process design in the Blueprint phase of the Switching Programme.
- Ofgem’s Priority Services Register review. This work is being progressed as a separate project. But we expect to incorporate the outcome of that review into the requirements of the CRS, noting that they may be implemented before the CRS goes live.
- Industry code consolidation. The Switching Programme will remove major parts of existing codes, and incorporate new switching rules into the SEC. This could be an opportunity to rationalise some of the industry codes, where significant aspects of particular codes would, going forward, be covered within SEC. This work would be undertaken as a separate project.
- Centralising Data Processing (DP) and Data Aggregation (DA).<sup>10</sup>

2.7. This TOM describes the scope of the Switching Programme in more detail.

2.8. We will refine the scope of the SCR, where we deem it appropriate to do so, in a manner best calculated to further our principal objective and general duties. This could be to ensure our SCR remains in line with developments in domestic and European legislation, industry developments, progress in our thinking, and engagement with stakeholders. Before doing so, we expect to undertake appropriate consultation with stakeholders.

2.9. Industry code governance is one of the areas being considered by the Competition and Markets Authority (CMA) as part of its ongoing investigation of the energy market. In our response to the CMA’s provisional findings, we set out that we think there are changes to the industry governance regime that can address the issues identified by the CMA, building on the options set out in the CMA’s notice of possible remedies. We noted that a reformed set of institutions would be central to ensuring that the regulatory regime is able to respond to the innovation and change the industry is going to see in the coming years. As we implement the Switching Programme, we will take into account the CMA’s conclusions in this area.

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<sup>10</sup> As part of our work with COSEG, we concluded that centralisation of DP and DA would not be required to improve the speed and reliability of the switching process, so this will not be included in the scope of this programme.



## 3. Participants in the switching process

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3.1. Below we provide a summary of the main participants in the gas and electricity energy retail markets and their roles in the switching process. The interaction between these participants is illustrated in two diagrams at the end of this section.

### Consumers

3.2. Consumers contract with suppliers for the supply of energy to their premises and will pay suppliers for the amount of energy consumed. In the domestic market, many consumers enter into a dual fuel contract with a single company for the supply of gas and electricity.

3.3. A consumer can choose to enter into a contract and be supplied by a new supplier. It can use a third party intermediary (TPI - described below) to help facilitate this choice. The new supplier will manage the switch on the consumer's behalf.

3.4. Domestic consumers typically have 14 calendar days after entering into a contract (the 'cooling off period') to decide whether to cancel that contract.<sup>11</sup>

3.5. Our view is that a consumer has entered into a contract when they make a firm commitment in respect of a supply contract which would result in a binding contract in the event that no further action was taken by the consumer.

### Electricity suppliers

3.6. An electricity supplier will have a contract (or deemed contract) with a consumer to supply them with electricity. When a consumer enters into a contract with a new supplier, it is that new supplier's responsibility to manage the switch on the consumer's behalf. The new supplier will start to bill the consumer after they have completed the switch. The old supplier for that consumer will close down the old account and issue a final bill to the consumer on the basis of a change of supplier meter reading. In some instances the consumer's existing supplier can block a switch (known as an "objection") to a new supplier.

3.7. The supplier will request a switch by sending a request to the relevant electricity registration service. This service holds a record of each supply point and which company is supplying the consumer at that supply point.

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<sup>11</sup> There are no legislative requirements for suppliers to provide a cooling-off period to non-domestic consumers.

3.8. The electricity supplier is responsible for paying electricity generators for the amount of energy used by their contracted consumers. It must also pay a Distribution Network Operator and the Transmission System Operator for using their networks. Consumption data is used to generate these charges via the settlement process.

## Gas suppliers

3.9. A gas supplier will have a contract (or deemed contract) with a consumer to supply them with gas. When a consumer enters into a contract with a new supplier, it is that supplier's responsibility to manage the switch on the consumer's behalf. The new supplier will start to bill the consumer after they have completed the switch. The old supplier for that consumer will close down the old account and issue a final bill to the consumer on the basis of a change of supplier meter reading. In some instances the consumer's existing supplier can block a switch (known as an "objection") to a new supplier.

3.10. A gas supplier must contract with a gas shipper. It is the shipper that sends, and manages, the request to switch with the relevant gas registration service. This service holds a record of each supply point and which company is supplying the consumer at that supply point.

## Gas shippers

3.11. A gas shipper is responsible for purchasing gas and arranging for it to be delivered across a Gas Transporter's network. It does this on behalf of its contracted gas supplier.

3.12. Gas shippers have the primary interface with Gas Transporters. The gas shipper will therefore manage the switching process on the supplier's behalf. Most (but not all) shippers are part of the same organisation as their contracted supplier. Some gas shippers provide services for more than one gas supplier.

## Distribution Network Operators (DNOs)

3.13. Large DNOs and independent DNOs (iDNOs) (referred to collectively in this document as DNOs) own and operate the local electricity networks that deliver electricity to consumers.

3.14. DNOs are required to operate Meter Point Administration Services (MPAS) that facilitate the change of supplier process. They are also required to provide

enquiry services which support the switching process and make data available to relevant parties, for example electricity suppliers.<sup>12</sup>

3.15. Each MPAS holds a record of all of the supply points on the relevant DNO network. This includes address data, the supplier responsible for each supply point as well as other information on the supply point (eg if it domestic or non-domestic and its settlement characteristics).

3.16. Each DNO runs its own MPAS. It operates in accordance with a set of rules that provide equivalent services for electricity suppliers.

## Gas Transporters (GTs)

3.17. Large GTs and independent GTs (iGTS) (referred to collectively in this document as GTs) own and operate the gas networks that deliver gas to consumers.

3.18. GTs are required to operate registration services that facilitate the change of supplier process. They are also required to provide enquiry services which support the switching process and make data available to relevant parties, for example gas shipper and suppliers.<sup>13</sup>

3.19. Large GTs are required to put in place an agent (Xoserve) that operates the registration process on their behalf. iGTs currently run their own registration services although changes are being made to transfer this responsibility to Xoserve as part of Project Nexus. Project Nexus is due to go-live in October 2016. Therefore, for the purpose of this TOM it is assumed that Xoserve is the current provider of registration services for the iGTs and Large GTs (see Figure 1 below).

3.20. The gas registration service will hold a record of all of the supply points on the network. This will include address data, which supplier and gas shipper is responsible for each supply point as well as other information on the supply point (eg if it is domestic or non-domestic and its settlement characteristics). The gas registration service also hold information on the metering technical details and meter reads taken at the premises.

## Data and Communications Company (DCC)

3.21. The DCC is the licensed central body appointed to provide the communications and data transfer and management services required to support smart metering. DCC is expected to go live for smart metering in 2016.

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<sup>12</sup> The on-line enquiry service provided in the electricity industry is known as Electricity Central Online Enquire Service (ECOES).

<sup>13</sup> The service provided by Xoserve of behalf of GTs is known as the Data Enquiry Service (DES).

3.22. The DCC is a critical element of the future switching arrangements, but not an active participant now. We propose to expand the role of the DCC to include the provision of the CRS. This will allow DCC to hold specified registration data and to support switching in the gas and electricity markets. This new registration service would also be required to provide information to support existing market requirements such as settlement and network charging obligations.

## Metering agents

3.23. Suppliers must appoint metering agents (which may be independent or may be 'in-house' ie within the same company or group) to:

- install and maintain meters
- obtain meter readings from meters that are not smart meters operated by DCC, and
- in electricity, to process and aggregate meter reading data to submit into settlement.

3.24. On switching, metering agents exchange data with each other and suppliers to facilitate the above functions and suppliers' ability to bill consumers.

## TPIs

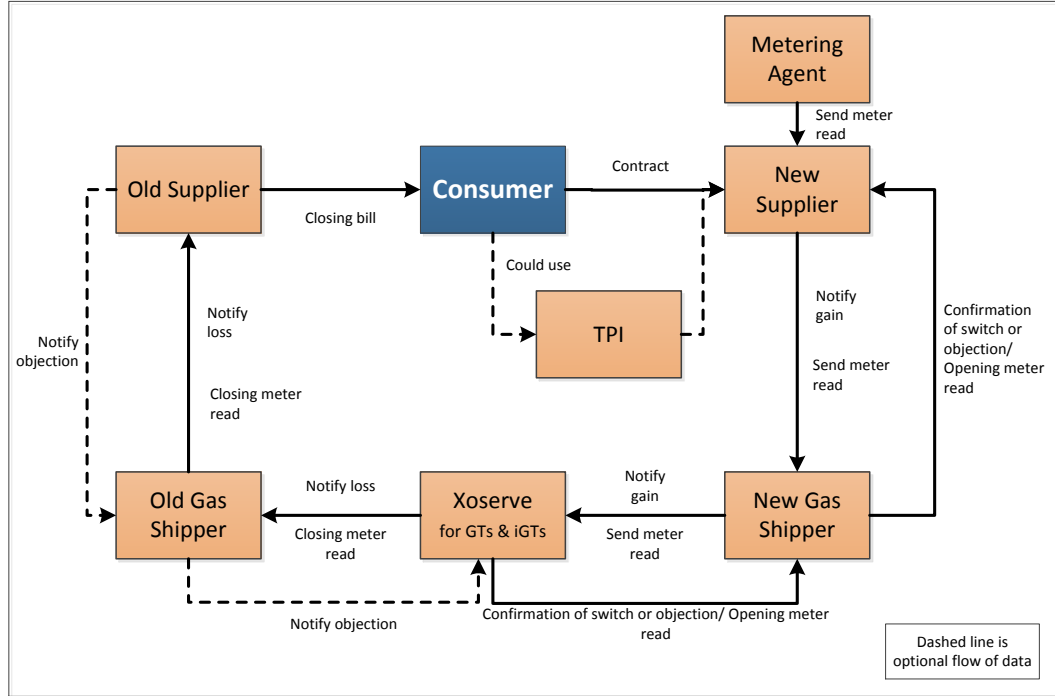
3.25. Third Party Intermediaries (TPIs) include switching websites, energy brokers and energy efficiency advice providers who interact with energy consumers. TPIs can offer advice and products to assist with a range of functions including energy procurement, efficiency and management for both domestic and non-domestic consumers.

## How participants currently interact

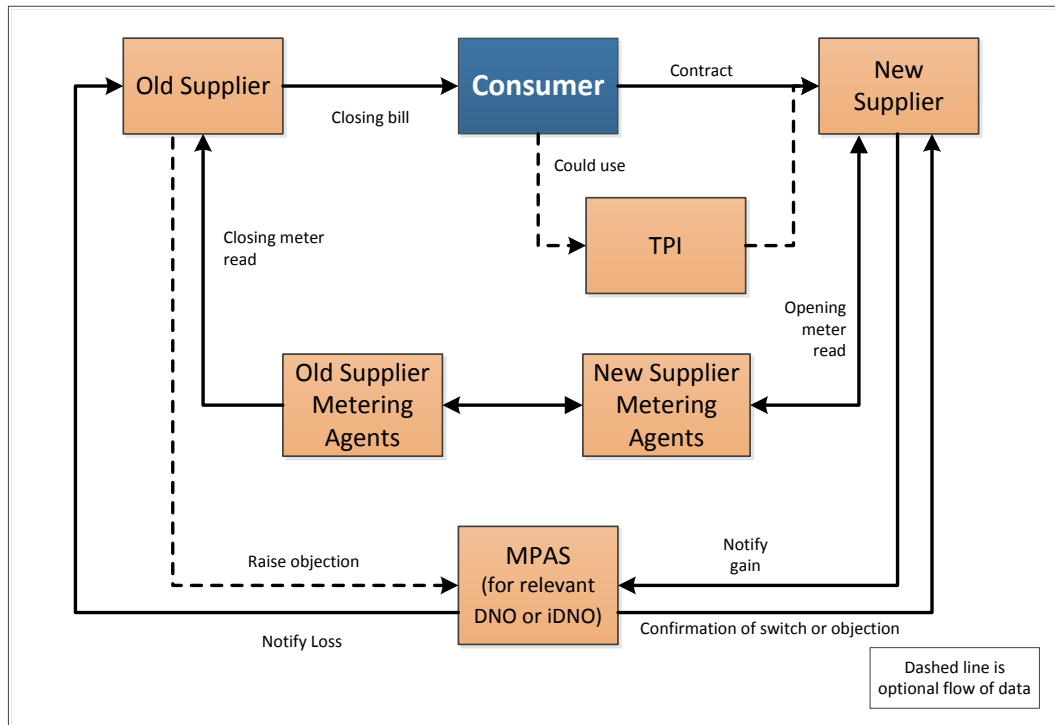
3.26. Figures 1 and 2 provide a high level summary of the role of the key participants in the current gas and electricity switching processes respectively. This is a significant simplification of the actual switching processes which, in reality, are complex with multiple exchanges of data between parties.



**Figure 1: Summary of current switching arrangements for gas**



**Figure 2: Summary of current switching arrangements for electricity**



## 4. Summary of current and proposed switching arrangements

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4.1. The gas and electricity markets operate separate switching arrangements. They share many common features at a high level but the detailed arrangements are different.

4.2. We want to change the existing registration model to a single centralised registration service which provides accurate data and operates common switching arrangements for all gas and electricity supply points on networks operated by licensed GTs and licensed electricity DNOs and supply points on unlicensed networks (if competitive supply arrangements are in operation). We propose that core elements of this service are established and run by the DCC.

4.3. Smart metering and a new CRS provide the opportunity to design systems and processes that will support faster, more reliable switching. It provides an opportunity to join, harmonise and simplify the switching processes and data management that support the retail market. However, different arrangements will continue to be needed in gas and electricity to manage separate wholesale, balancing and settlement processes in both markets.

4.4. The detail of how the switching process will work for consumers with differing metering technologies, payment arrangements and routes through which they enter into new contracts will be developed in the Business Process Design Workstream. We want the processes to be as similar as possible to ensure benefits are realised for all consumers in the energy market. Any differences in outcome must therefore be carefully considered and justified.

4.5. The following section provides a high level summary of the key steps in the current gas and electricity switching processes and compares this to our proposal for next-day switching using the CRS. Further detail on our proposed new arrangements, for example in relation to erroneous transfers and the new supplier loading security keys for smart meters, is set out in Section 7.

### Step 1: Consumer enters into a contract

4.6. **Current process:** A consumer enters into a contract with a new supplier to be supplied with gas, electricity or both. This contract may be entered into via a TPI service. For example, a consumer can enter into a contract through a price comparison website or energy broker.

4.7. **Proposal:** As above, a consumer will enter into a contract with a supplier, including through a TPI. To meet our aim of next-day switching, the TPI will need to ensure its activities to facilitate and support the switching process are based on accurate information and that it passes information to the new supplier in time to enable next day switching.

4.8. A more detailed description of how we want consumers to be able to experience the new switching process is set out in Section 5.

## Step 2: New supplier led switching process

4.9. **Current process:** The new supplier sends a request to the gas and/or electricity registration service to take over responsibility to supply gas or electricity to its contracted consumer's premises. In gas, this request is sent via the gas shipper. For Large Supply Points (LSPs) in the gas market, there are additional steps in the switching process that allow a shipper to send an enquiry to the registration service as well as a "Supply Point Nomination" prior to confirming the request to switch the site. This provides information to the gas shipper and supplier about the characteristics of the site so that they can offer the right contractual terms to the consumer.

4.10. **Proposal:** We will retain the requirement for the gaining provider to make the registration request. This request will be sent to the CRS rather than the network run registration services. A supplier should also be able to send a single request to switch the gas and electricity supply at a consumer's premises. In the gas market, switching requests will be the responsibility, under the SEC, of the gas supplier, rather than the gas shipper. Therefore, the gas shipper will no longer be the licensed party responsible for managing the interaction with the registration service for gas consumers. A gas supplier will, however, be able to nominate a shipper to act on their behalf to manage the switch. We will investigate any requirements for suppliers (and gas shippers) to access information on the characteristics for large sites to help suppliers develop their contractual offers for non-domestic consumers.

## Step 3: Switching speed

4.11. **Current process:** In the domestic market, suppliers have agreed to time their switching request so that the transfer will conclude within 21 calendar days after the contract has been entered into. This is made up of a 14 day cooling off period, during which the switch is initiated and a further three working days to complete the switch.<sup>14</sup> This typically requires a switching request to be sent during the 14 day cooling-off period with the switch completing three days after that. Suppliers have licence obligations to switch consumers within three weeks after the end of any cooling-off period.

4.12. **Proposal:** Suppliers will be able to switch consumers so that, if consumers wish, they can be supplied by their new supplier the day after the contract is entered into.<sup>15</sup> We will examine during the Blueprint Phase whether the switch should be the start or the end of the day after the contract is entered into. Consumers may choose

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<sup>14</sup> The three working days after the cooling off period may straddle weekends and other non-working such as bank holidays, which gives a switching timescale of around 20 calendar days for consumers.

<sup>15</sup> Note that the electricity day starts at midnight. For gas it will start at 5am from October 2015.

to switch at a later date if that better suits their needs. We are not proposing that consumers would be able to switch before the start of the next day.

## Step 4: Cooling-off

4.13. **Current process:** Where a domestic consumer cancels their contract during the cooling-off period, the new supplier will seek to withdraw its switching request. If it is not able to do so (for example, where the switch has already taken place), the new supplier will send a request to the previous supplier asking it to switch the consumer back.

4.14. **Proposal:** A domestic consumer will be able to cancel their contract within the cooling-off period and be returned to their previous supplier on the contract terms they would have been on had they not switched. The requirements for these cooling-off arrangements are covered in more detail in Section 8.

## Step 5: Objections

4.15. **Current process:** The registration service processes the request and notifies the current supplier that a request has been received. The current supplier decides if it has grounds to object in accordance with its licence obligations. If it does, it may block the transfer. It does this by sending a message to the registration service to stop the switch from taking place.

4.16. **Proposal:** Suppliers that want to use the objections process will provide the CRS with an up-to-date and accurate record of which sites they would object to if a switching request was made. This means that the CRS can identify near real-time if the switch should not proceed. We will consider options for suppliers to provide data to the CRS on all sites that they would object to or to submit an objection in response to notification from the CRS of a requested switch to a new supplier. For start of next-day switching (see paragraph 2.03) the notification from the CRS and supplier response would need to happen in near real time. For an end of next-day switching option, a supplier may have longer to respond to a notification from the CRS. As described above, we are currently reviewing the role that objections should play in energy markets.

## Step 6a: Metering arrangements – electricity

4.17. **Current process:** The gaining supplier appoints metering agents to maintain the meter and process meter reads for settlement. It may also need an agent to obtain the read (unless it is an enrolled smart meter with meter reads obtained via the DCC). The losing supplier de-appoints its existing metering agents. The gaining and losing suppliers' metering agents exchange metering data. This is necessary to enable the new agents to perform their functions and to obtain and validate a change of supplier meter read that can be used by the losing supplier for their closing bill and by the gaining supplier to open the consumer's account. This change of supplier meter reading is also used to determine the allocation of settlement and network charges between the suppliers.



4.18. **Proposal:** The CRS will become the master source for supply point data. The CRS is not expected to hold additional electricity metering data centrally (i.e. consumption history and comprehensive meter technical details (MTDs)), but access to this data is expected to improve with the introduction of other reforms, including the roll-out of smart meters. Suppliers will continue to appoint the relevant metering agents to support the switching process and use DCC services to collect meter readings from smart meters.

## Step 6b: Metering arrangements – gas

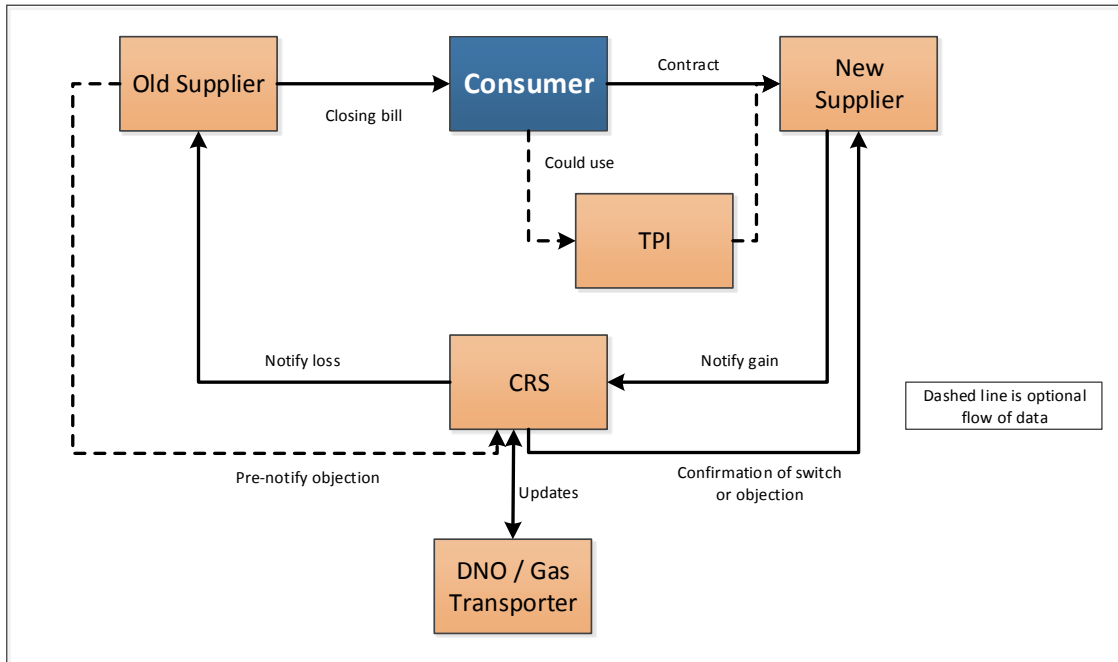
4.19. **Current process:** In the gas market, the registration service holds metering data and validates the change of supplier meter read provided by the gaining supplier. Where a read is rejected, or is not provided, it generates an estimate and sends that to both suppliers.

4.20. **Proposal:** The CRS will become the master source for metering equipment data, site data and other technical metering data currently accessed from the registration service. Suppliers will continue to appoint the relevant metering agents to support the switching process and use DCC services to collect meter readings from smart meters. The new supplier will, via its shipper, provide an opening and closing meter read to Xoserve so that it can be validated for settlement and consumer billing purposes.

## Proposed switching model: Summary diagram

4.21. The following diagram provides a summary of how the proposed new switching process would operate for both the gas and electricity markets. There will continue to be interactions between suppliers and metering agents and the DCC, as highlighted above. These are intended to be simplified and the precise nature of these interactions will still depend on the fuel type, meter type, whether the consumer is domestic or non-domestic, and on the range of data available centrally. For simplicity, interactions with metering agents and the change of supplier meter reading process is not included in this diagram, nor are any required interactions with gas shippers.

**Figure 3: Summary of future switching arrangements for electricity and gas**



## 5. Consumer journey

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5.1. This chapter describes our vision for how consumers will experience the new switching arrangements.

5.2. Setting out expectations from a consumer's perspective allows us to:

- Focus on delivering outcomes that meet consumers' requirements
- Set expectations for what we want to achieve in a clear way
- Identify issues that will need to be resolved to meet consumers' requirements.

### Approach

5.3. All consumers, regardless of their metering technology or how they pay their bills, should have access to a reliable and fast switching process. We recognise that there are likely to be differences in the process for specific customer groups. We aim to ensure that any differences are minimised and justified.

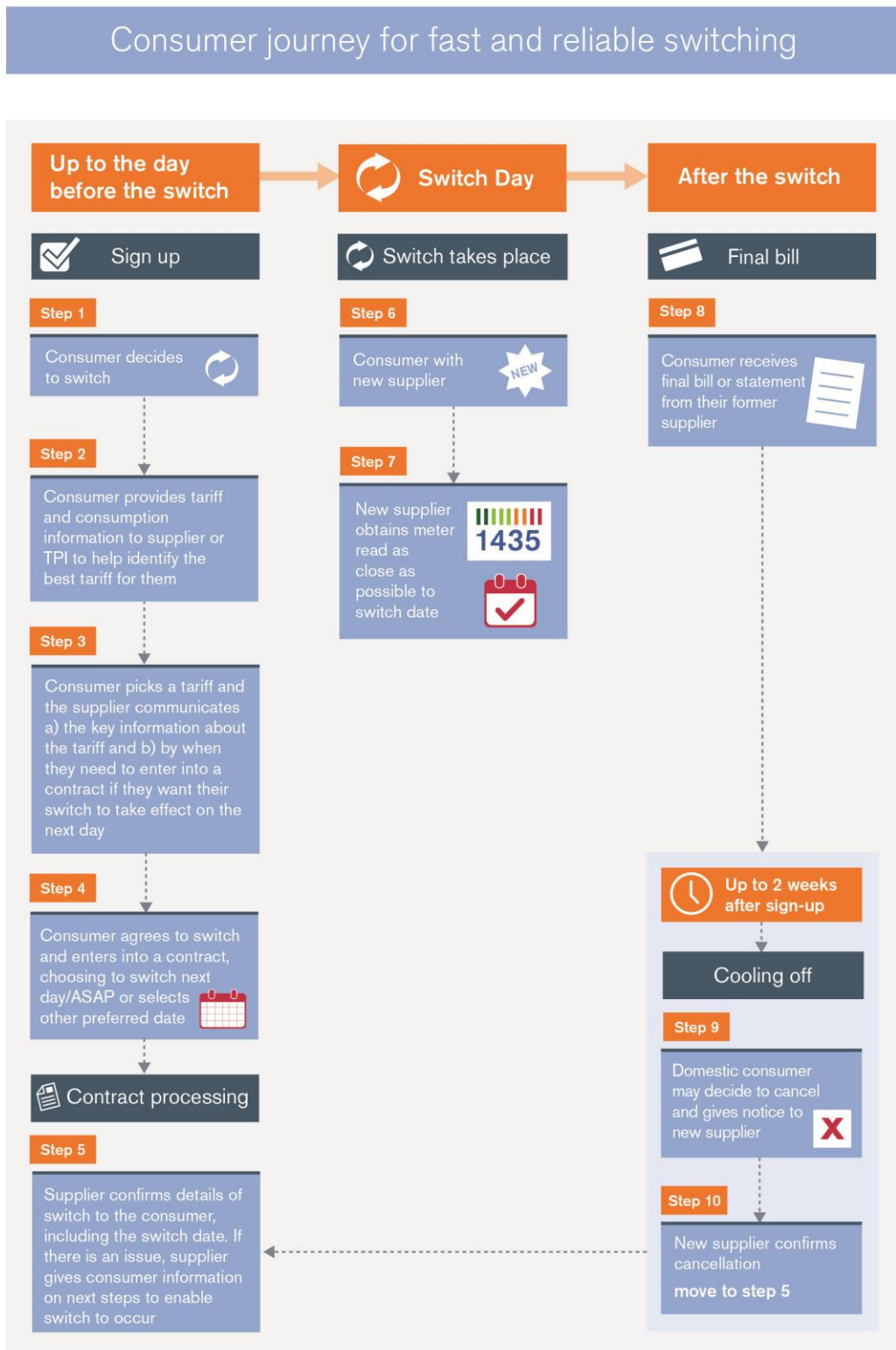
5.4. We have examined the specific switching requirements of consumer groups. We have paid particular attention to the following differentiators:

- **Domestic vs non-domestic consumers:** These different consumer types have different energy requirements, engage with the market in different ways (although there are similarities between micro business and domestic customers) and suppliers have different obligations to meet when serving each sector.
- **Metering type:** The functionality of smart, Automated Meter Read (AMR), and traditional metering differs and this necessitates variation in the new switching process.
- **Payment method:** Suppliers have different obligations to meet when serving credit and prepayment meter (PPM) consumers and these will need to be accounted for in the design of the switching process.

5.5. Figure 4, below, sets out our high level vision for the switching journey that consumers should be able to choose. This is broken down into activities that will occur before the switch, at the point of the switch and after the switch.

5.6. In the remainder of this section we describe these activities in more detail and highlight how our vision is expected to work for the different consumer groups noted above.

**Figure 4: The consumer journey**



## Activities prior to the switch

5.7. In this section we review the activities that will occur prior to the switch. In Figure 4 above this incorporates “Sign up” and “Contract processing”. Our expectation is that these activities should be capable of being completed on the day before the switch, but in practice could take place earlier with the consumer agreeing to a “switch day” in the future.

### Sign-up

5.8. The scope of the Switching Programme starts from when a customer decides to switch. Prior to that, the customer may receive prompts or otherwise decide to engage in the market to see if they can get a better deal. Consumers can shop around; they may do this directly with a supplier over the phone, on the web, via face-to-face marketing or an alternative route, such as through a collective switch scheme. To help a consumer pick the right deal, they should be able to provide potential new suppliers and TPIs with information on their consumption pattern. For consumers with smart meters, they will be able to provide consent to a supplier or TPI, such as a price comparison website, to access tariff and consumption data on their meter.

5.9. Once the consumer has notified the supplier (or its agent) of their intention to switch, the supplier will (directly or via its agent) communicate key information to the consumer,<sup>16</sup> this includes the principal terms<sup>17</sup> of the contract and, for domestic consumers, the tariff information label.<sup>18</sup>

5.10. Under the new switching arrangements we expect the supplier (or its agent) to clearly communicate the time by which a customer must have entered into a contract for the switch to take place the next day. We want consumers to be able to choose to switch either: the next day, as soon as possible or to select a specific date that best meets their needs. For example, this might be when they expect to move into a new property or when their existing fixed term deal ends.

5.11. In Table 1 below, we have highlighted some key differences that consumer groups are expected to experience in the switching process.

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<sup>16</sup> The information that suppliers have to communicate is set out in the supply licence

<sup>17</sup> Principal terms include but are not limited to: the charges for gas and electricity, any requirement for a security deposit, length of contract, rights to end contract, circumstances when a supplier would alter charges or payment method.

<sup>18</sup> The tariff information label is information set out in prescribed format to enable consumers to compare tariffs. The information includes but is not limited to: tariff name, payment method, unit rate, standing charge, tariff comparison rate exit fees, expiry date for tariff

**Table 1: Key variations in sign-up**

Steps	Consumers impacted	Potential variation
1-5	<i>PPM consumers with traditional metering</i>	<p><b>Timing of sign-up</b></p> <p>In most instances customers will be able to sign-up and switch the next day. PPM consumers with traditional metering will require a new key to be sent to them so that they can top-up their PPM meter using the new supplier's tariff. A supplier may therefore build in time to send a new key so it arrives the day before, or the day of, the switch. These customers may therefore enter into a contract around four days before the switch occurs. We will continue to investigate during the Switching Programme if this timescale can be reduced.</p>
3	<i>PPM consumers with traditional or smart metering</i>	<p><b>Provision of information by suppliers</b></p> <p>Suppliers are required to provide PPM customers with additional information prior to the switch occurring. However we do not consider that this should delay the switch. The information they are obligated to provide includes:</p> <ul style="list-style-type: none"> <li>• The advantages and disadvantages of PPM</li> <li>• Information relating to how their smart meter operating in PPM mode works, including the process for topping up</li> <li>• How the consumer can access help if their smart PPM meter stops working</li> <li>• The procedures the supplier will follow when removing or resetting the smart PPM meter, including the timescale and any conditions for removing or resetting it.</li> </ul> <p>In addition, the supplier must ensure it is safe and reasonably practicable for their smart meter to be operated in PPM mode.</p>
1	<i>Non-domestic consumers</i>	<p><b>Contract negotiation</b></p> <p>Non-domestic consumers, particularly very large consumers with complex portfolios, are likely to negotiate deals over a longer period of time. These consumers may use an energy broker or conduct a competitive bidding process to find the best deal. This is likely to occur longer than a day before the switch, however once the deal has been struck, we expect that the switch should be capable of being processed as quickly as it would for domestic consumers. This may be particularly relevant for smaller non-domestic consumers and those on deemed contracts. Some domestic customers may also engage with the market over a longer timeframe (than the day before a switch) before choosing the right deal and entering into a contract.</p>

## Contract processing

5.12. After the consumer enters into the contract, the supplier will process it to prepare for the switch. If the customer signs up via a TPI, such as a switching website, that TPI will need to provide the contract details to the new supplier accurately and in time to support next day switching.

5.13. A supplier’s processing of the contract may include verification of the address details and credit checks, amongst other things. We consider that these activities can happen quickly. If further work is required, for example a security deposit is required or the supplier needs to make further checks to ensure that it is transferring the correct customer (and not making an erroneous transfer), that could prevent the switch taking effect the next day.

5.14. A consumer should receive a confirmation message once the contract has been processed informing them that the switch will occur as planned. If the supplier’s processing highlights an issue with the proposed switch then that should also be communicated quickly to the consumer. Depending on how the consumer chooses to engage with the supplier the confirmation message could be provided by email, text or over the phone.

5.15. We have not identified any key differences here on how the different identified consumer groups should experience this part of the switching process.

### Activities at the point of the switch

5.16. In this section we review the activities that will occur around the point that the consumer starts to take supply from their new provider.

#### Switch takes place

5.17. Responsibility for the consumer’s electricity supply will transfer to the new supplier at midnight. Responsibility for the gas supply will transfer at 5am. For consumers with smart meters, this should be the point that their new tariff is uploaded to the meter and the new charges will be visible on the IHD or other consumer device connected to a smart meter that is capable of providing the customer with access to this information.

5.18. The new supplier will attempt to obtain a meter read as close to this switching point as possible. This reading can be used to start the consumer’s billing account with the new supplier and close the billing account with their previous supplier. Table 2, below, highlights how this will differ for consumers based on their *metering type*.

**Table 2 – Key variations in obtaining meter reads**

Steps	Consumers impacted	Potential variation
8	<i>Smart meters and AMR meters</i>	<b>Remote reading</b> With smart metering a supplier can obtain meter reads remotely. Consumers will therefore not be asked to provide the switching meter read.
8	<i>AMR meters</i>	<b>Remote reading, meter reader or consumer provided meter read</b> A supplier can also obtain a remote read for consumers with AMR meters. We note that the current arrangements do not

		necessarily support the new supplier in obtaining a meter read quickly using the existing AMR equipment. Where this is not possible a new supplier may choose to replace the metering close to the switching day, send a meter reader or ask the consumer to provide a reading.
8	<i>Traditional credit and PPM meters</i>	<p><b>Consumer provided meter read</b></p> <p>Consumers with traditional metering are typically asked to provide a meter read close to the switching day. This may be taken and submitted several days either side of the switch. With next-day switching we think that consumers could provide a read at the point that they enter into a contract or the following day (ie the day of the switch). As consumers are actively engaging with the supplier at this point, we think that consumers may be more willing to provide a meter read. If the consumer does not provide this information, their bills will be estimated using historic data.</p>

## Activities after the switch

5.19. In this section we review the activities that will occur after the consumer has switched. This includes the previous supplier sending a final bill and the potential for a consumer to cancel their contract during the cooling off period.

### Final bill and cooling off

5.20. For most consumers the final part of the switch will be receiving and paying the final bill from their previous supplier. We want final bills to be sent to consumers as soon as reasonably practicable. We expect that this should be, at most, around two weeks after the switch. Billing as soon as practicable completes the process quickly for consumers. It can also allow consumers to financially plan more effectively than is currently the case.

5.21. The timing of when a final bill should best be sent may depend on the arrangements for consumers to cancel a contract during the cooling off period. Domestic consumers have a 14-day period after entering into a contract within which they can cancel. This is not a legal requirement for non-domestic consumers. Further work during the Blueprint phase is required to identify when final bills should best be sent to consumers where there is the potential to cancel the contract. This work will identify if there are benefits to billing before the cooling-off window has expired or whether this creates adverse consequences for those consumers that change their minds and want to reverse the switch.

5.22. As noted above, the arrangements for obtaining a change of supplier meter read also may vary depending on the metering technology. This could influence the speed with which final bills are sent. For example, where remote reads can be obtained through a smart meter, a final bill could be sent within a few days.



## 6. Summary of current and proposed regulatory framework

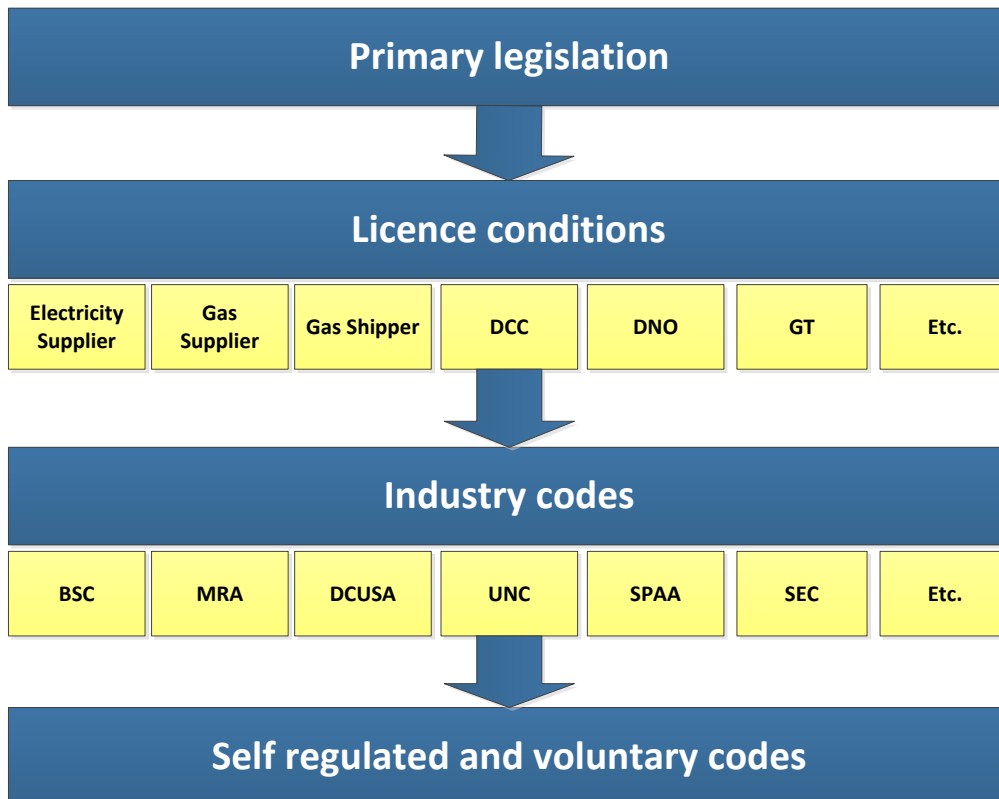
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6.1. The regulatory framework for the gas and electricity industry in Great Britain is set out in European and domestic legislation, licences and industry codes. The key obligations linked to the switching process are set out in licence and industry codes.

### Regulatory Instruments

6.2. Figure 5 below shows the hierarchy of regulatory instruments in the energy industry.

**Figure 5: Hierarchy of domestic regulatory framework**



## Primary Legislation

6.3. Primary legislation provides the foundation of regulation in the electricity and gas industries, particularly through the provisions of the Electricity Act 1989, the Gas Act 1986, the Energy Acts 2004, 2008 and 2010, the Enterprise Act 2002 and Utilities Act 2000.<sup>19</sup>

6.4. The Gas Act and Electricity Act make it unlawful to carry out certain activities without holding a relevant licence. These activities are described in legislation and include generating, transmitting, distributing and supplying electricity and transporting, shipping or supplying gas. They also include interconnection and smart meter communication.

6.5. Primary legislation can provide the powers to implement significant policy change through licences and other regulatory instruments.

## Licences

6.6. Electricity and gas suppliers, gas shippers, GTs, DNOs and the DCC are required by legislation to be licensed<sup>20</sup> and to operate in accordance with the obligations set out in licence conditions.

6.7. The DNO and GT licences require them to establish and operate registration services for the supply points on their networks. In moving to a CRS, we expect these licence obligations to be significantly modified and for new licence obligations to be placed on the DCC.

6.8. Suppliers have specific licence obligations on switching speed.<sup>21</sup> Licence obligations also specify when a supplier is permitted to block a switch and requires the outgoing supplier to send a final bill to the consumer within six weeks of the switch taking place.

6.9. Licences also contain requirements to comply with industry codes. These codes contain the detailed rules on how the switching process operates.

6.10. Failure to comply with the licence obligations carries the risk of enforcement action by Ofgem, which could result in financial penalties, enforcement orders or licence revocation.

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<sup>19</sup> Sitting above this domestic legislation are European rules. These include the Third Package of energy reforms and the Consumer Rights Directive.

<sup>20</sup> Unless exempt and subject to the relevant requirements under the Gas and Electricity Acts.

<sup>21</sup> Suppliers are required by SLC 14A of the Supply Licence to switch consumers within three weeks of the relevant date. The relevant date is the day that the contract is entered into, or where there is a cooling off period, the earlier of; the end of the cooling off period, the date that the consumer and supplier agree to switch during any cooling off period or 14 days after when the contract was entered into.

## Industry codes

6.11. Industry codes are typically multi-party agreements that describe the detailed operation of the market including the switching process. These codes have arrangements which allow for changes to be made to the processes set out in the codes. In some cases these changes require Ofgem's approval, whilst others can be determined by code parties.

6.12. There are a number of existing industry codes that describe the current switching process (further information is provided in the glossary):

### Electricity

- Master Registration Agreement (MRA)
- Balancing and Settlement Code (BSC)
- Distribution Connection and Use of System Agreement (DCUSA)

### Gas

- Uniform Network Code (UNC)
- Supply Point Administration Agreement (SPAA)

6.13. The new Smart Energy Code (SEC) has been established to support smart metering. Unlike the codes described above, the SEC covers both the gas and electricity markets. It is in this code that we expect to set out the obligations on DCC to operate the CRS and to describe the switching process although there may be supporting requirements set out in other existing industry codes.

## Self-regulated and voluntary codes

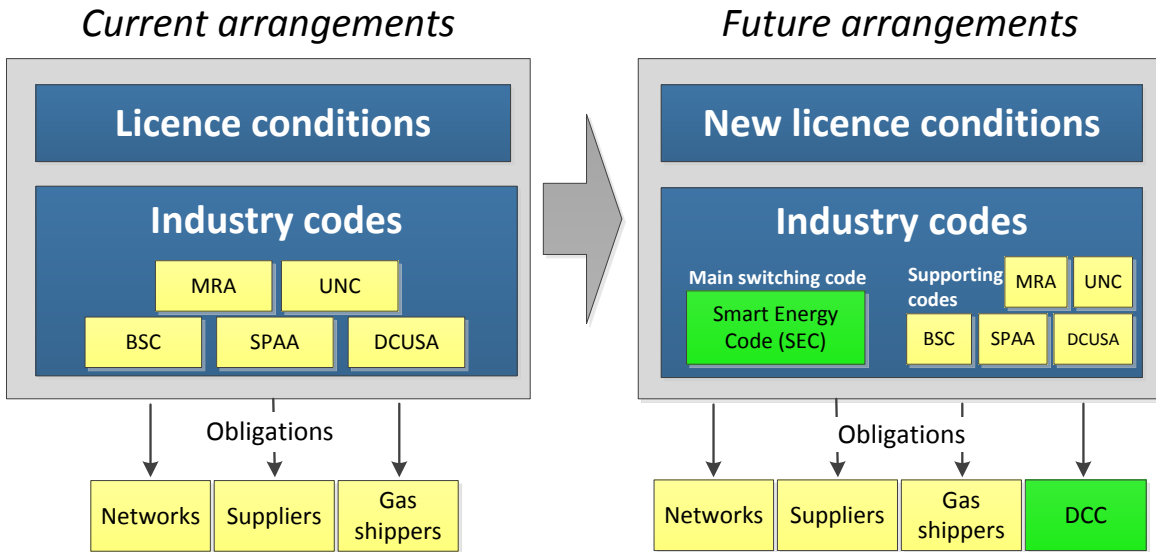
6.14. There are a number of self-regulated and voluntary codes that have been established by industry to deliver good practice (e.g. Code of Practice for Accurate Bills). We have not assessed any requirements for self-regulated codes at this stage and would expect to consider this through the Switching Programme as part of future developments. It is possible that new self-regulated and voluntary codes and changes to existing codes may be required.

## Summary of current and proposed new governance framework for switching

6.15. Figure 6 below summarises the current governance structure for switching and registration and how we expect this to change to deliver our proposals for reliable next-day switching on a CRS.



**Figure 6: Summary of current and future governance framework**



6.16. The target is to set out the bulk of the requirements in the SEC to deliver a single, coherent description of the switching process for both gas and electricity in one place. Some supporting elements of the switching processes might need to be retained in the current industry codes.

6.17. As described in the scope, the Switching Programme will not be undertaking wider consolidating of other elements of industry codes. This would be done by a separate project.

## 7. The Central Registration Service (CRS)


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7.1. This section describes the scope, role and characteristics of the CRS. During the Blueprint Phase we will determine the specific role of the CRS in holding and providing access to the supply point data that facilitates the administration of gas and electricity supply points and switching.

### Functional service requirements

7.2. The CRS will provide a range of functional services. For the purposes of this document, a functional service is an activity, or set of activities that the CRS will be required to perform. This will include:

- *Register of supply point data*: The CRS will hold relevant data for each supply point connected to a licensed gas or electricity network. The specific types of data that it will be required to hold are described in more detail below. The CRS will incorporate arrangements for new supply points to be added and removed as notified by GTs and DNOs.
- *Switching service*: The CRS will receive, hold and provide access to data to support the switching process (as highlighted in the 'Data Requirements' section below).
- *Smart metering support*. The CRS will hold and provide certain data, including the supplier identity, to support the operation of smart metering arrangements.
- *Reporting requirements*. The CRS will provide information to parties to support the operation of the market. This will include reports to Ofgem on market and individual party performance.
- *Balancing and settlement support*. The CRS will provide access to data to support balancing and settlement. This will include providing the supply point data that a new supplier needs to purchase gas and electricity and meet its balancing and settlement requirements. The CRS will not perform balancing and settlement functions. These will continue to be undertaken by Xoserve and Elexon in the gas and electricity markets respectively.
- *Network charging support*. The CRS will provide access to data to support network charging, thereby allowing DNOs and GTs to calculate and invoice suppliers (and/or gas shippers) for use of the gas and electricity networks.



## Moving to reliable and fast switching

- *Green Deal support.* The CRS will provide access to data as required to support the Green Deal arrangements. This will include verification of which metering points are linked to a Green Deal.<sup>22</sup>
- *Enquiry services.* The CRS will support the provision of on-line data enquiry services to defined market participants. We will also examine how other enquiry services, such as telephone enquiries from consumers, should be managed. We will examine if the responsibility for providing any enquiry services should be moved to DCC.
- *Provide access control to relevant data for authorised parties.* The CRS will control access to data to ensure that only appropriate parties (eg suppliers, gas shippers, GTs and DNOs, metering agents, MAPs, TPIs, PPMIPs) have appropriate rights to view, create, update or delete data. We will consider if providing access to a party is in consumers' interests. Data is expected to be accessed for:
  - *Safety purposes:* The CRS will provide DNOs and GTs with access to address information to facilitate them meeting their safety requirements.
  - *PPM payment allocation:* Current registration systems support the re-allocation of traditional PPM top ups made to the wrong supplier. The CRS will provide equivalent support.
  - *Priority Services Register (PSR):* Subject to Ofgem's current review of the PSR requirements, the CRS will facilitate access to PSR data to relevant parties.
- *Supplier of Last Resort.* The CRS will support the ability to appoint a Supplier of Last Resort quickly and efficiently. We will examine if the CRS should have functionality to quickly and efficiently split the portfolio of a failed supplier between more than one supplier of last resort.
- *Licence Exempt Networks (LENs).* Where requested by LENs, the CRS will hold and provide data as required to facilitate supply point switching on these networks.
- *Related Meters.* The CRS will be able to identify related meters in the electricity industry (including twin element smart meters) and, where appropriate, prevent one being switched without the other.
- *Non-switch days.* The CRS will have the flexibility to declare non-switching days where, for example, other activities require this to be temporarily suspended.

7.3. The CRS will provide access to the data required by industry participants in a timely manner. An appropriate analytical technique will also be used to capture and

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<sup>22</sup> We will review what changes are required to the regulatory framework for Green Deal to facilitate the CRS performing the functions currently required of MPAS systems.

further define a full set of functional requirements (eg Use Cases).<sup>23</sup> The appropriate capacity of the CRS will be determined to meet its functional requirements.

7.4. We will examine the CRS' role in delivering a high quality switching experience for consumers. For example, we will consider its role in proactive flow management and monitoring each switch to help to ensure that industry meets its requirements on accuracy and timeliness. We will examine the role that the CRS can play in providing a platform for participants in a switch to understand its progress and identify any issues.

## Non-functional service requirements

7.5. There will be a set of non-functional service requirements for CRS and we expect that appropriate analytical techniques will be used to capture and further define these non-functional requirements. We are likely to review DCC and its service providers' non-functional requirements, and those of parties that provide the data accessed via the CRS, as an input into this process. Examples of non-functional requirements may include performance standards, capacity, usability, reliability (including integrity, audit and data retention), security and supportability.<sup>24</sup>

7.6. The CRS will be designed to meet data protection requirements.

7.7. The CRS will be designed to be flexible and adaptable to be able to reflect future change (eg electricity settlement reform).

## CRS access requirements

7.8. The first phase of the Switching Programme (the Blueprint phase) will examine who is responsible for submitting and maintaining each data item accessed via the CRS. It will need to identify who should be able to view that data and how any access permissions will be managed. Currently, there are different approaches in gas and electricity to the management and access of data items.

7.9. This work will be an opportunity to identify any requirements that industry parties who have traditionally not been able to access registration data may have. These may include non-domestic consumers, TPIs, Meter Asset Providers (MAPs), other metering agents and other parties, such as microgeneration installers, working on behalf of consumers and suppliers.

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<sup>23</sup> Use Cases are used in system analysis to identify, clarify and organise system requirements. A Use Case is made up of a set of possible sequences of interactions between systems and users in a particular environment and related to a particular goal.

<sup>24</sup> These examples have been taken from Schedule 2.1 of DCC requirements, which relate to the DSP [http://www.smartdcc.co.uk/media/6076/3\\_Schedule\\_2.1\\_\(DCC\\_Requirements\)\\_\(\\_DSP\\_version\)\\_\[\\_v.1\].pdf](http://www.smartdcc.co.uk/media/6076/3_Schedule_2.1_(DCC_Requirements)_(_DSP_version)_[_v.1].pdf).

## Data requirements

7.10. The CRS will replace functions provided by the current MPAS and gas registration systems and will hold relevant details for each registered gas and electricity supply point on GT and DNO networks. The CRS will provide access to registration data required by DNOs and GTs to undertake their regulatory requirements, including those related to safety.

7.11. The CRS will be the master source of the industry data needed to support the switching process. This will include:

- The identity of the relevant supplier, shipper (gas only), GT, DNO and relevant metering related information (including the identity of metering agents and the MAP) linked to each supply point.
- Accurate address data for each supply point including, where appropriate, the Unique Property Reference Number (UPRN).
- Relevant settlement data requirements (currently held on MPAS and Xoserve's systems).

7.12. Currently, there are different approaches in gas and electricity to the management and access of these data items. The Switching Programme will look for opportunities to harmonise the way data is held between the two markets, where doing so benefits consumers, including through improving industry efficiency.


7.13. The Switching Programme will examine what additional data items should be accessible through the CRS. Examples of new data items are expected to include:

- *Non-standard supply points*: The CRS will flag when a site has a non-standard arrangement that would be to the customer's benefit if a new supplier or network provider was aware of it. This will allow the new supplier to confirm with the customer whether it is able to support the site. It may also signal that specific switching arrangements are required. Examples in the gas industry include unique and complex sites.<sup>25</sup>
- *Traditional PPM*: We will consider if the CRS should provide additional information to a new supplier to indicate if a supply point has a traditional PPM. This is important for a new supplier so that it can make sure it sends the top-up key to the customer and meet its other obligations for customers with a PPM.
- *Priority Services Registers (PSR)*. As noted above, and subject to Ofgem's current review, the CRS will provide access to PSR for relevant parties.

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<sup>25</sup> Unique sites include shared supply points and short haul tariff connection. Complex sites include primes and subs and twin-stream meters.





## Moving to reliable and fast switching

- *Load Managed Areas (LMA) and Security Restriction Notices (SRN)*. Suppliers will be able to access LMAs and SRNs (maintained by DNOs) via the CRS for each MPAN. This will enable suppliers to understand how the supply point should be treated and what contractual offers can be made.
- *Rota Load Disconnection Codes*. Suppliers will be able to access Rota Load Disconnection Codes (maintained by DNOs) via the CRS for each MPAN. .

7.14. A guiding principle will be that, where appropriate, and where it better supports reliable, fast and efficient switching, the gaining supplier should not be dependent upon the losing supplier (or their agents) to obtain the information they need to make the switch and supply their new customer. We recognise that there may be circumstances where this may not be possible (eg linked to process for the new supplier to load its security key onto a smart meter) or appropriate (in the case of consumption history and comprehensive MTDs for traditional and AMR electricity meters), but this remains the guiding principle.

7.15. The accountability for the accuracy of the data accessible through the CRS will be defined in the SEC, although, as previously noted, there may be some complementary requirements that would be more effectively retained in the existing industry codes. DNOs and GTs will remain responsible for setting up the initial data for a supply point where a new connection is made and removing the data where the supply point is removed from their network.

7.16. The SEC will include access and amendment restrictions preventing unauthorised editing of records. The responsibility for determining which industry party should be responsible for maintaining and updating data will be determined in the Blueprint Phase.

7.17. The Switching Programme will consider where data should be stored, eg by the CRS or other industry parties, and how it can be accessed most effectively, mindful of the overall objectives of centralising registration for gas and electricity.<sup>26</sup>


7.18. As noted above, the SEC will govern the business processes and management of data for the operation of the CRS.

## Communications interfaces

7.19. The CRS will support interfaces with users so that the CRS can send, receive, access and update service requests. The interfaces will be specified to meet the requirements of the business processes defined in the SEC.

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<sup>26</sup> One example being the inventory of smart metering data held by DCC.



## Moving to reliable and fast switching

7.20. Data to be stored by the CRS and interfaces to support the creation, updating and reporting of this data will be identified in the more detailed capture of functional service requirements.

7.21. Privacy, security and any requirements for loading the new supplier's security key onto a smart meter as part of a switch, as well as service levels for the CRS, will be considered once the service requirements are better understood.

7.22. We anticipate that different classes of CRS Users, and different aspects of the switching process and wider CRS' role, will have very different requirements in terms of the speed of managing service requests, volumes of data and machine-to-machine connections. The SEC will specify the connection options available to CRS Users.

7.23. To support the data required for switching and CRS processes we anticipate that it will be necessary to update the existing architecture to support near real-time service requests. We expect to consider a number of options including, but not limited to, the existing DCC User Interface and the managed file transfer service currently used by registration systems. All options will need to be assessed for delivery feasibility, timing and cost.

7.24. Existing industry communications incorporate peer-to-peer data exchange as well as sending data between market participants and a central body (a 'hub and spoke' model). We will review whether the CRS should incorporate a hub and spoke model to manage all communications between organisations, or whether some should remain as peer-to-peer data exchanges. We will also examine which parts of the switching process require near real time data exchange and which elements can be sent over a longer period without compromising the Switching Programme's objective.

## 8. New switching arrangements

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8.1. This section describes the new switching arrangements. It builds on the high level explanation provided in Section 3 and 4.

8.2. The new switching arrangements will comprise a number of functional requirements described in the SEC and delivered by the CRS.

8.3. We want all domestic and non-domestic consumers to be offered next-day switching. Where this is not possible, any differences should be minimised and justified. During the Blueprint stage we will consider whether it is necessary to build in any different arrangements to manage any specific consumer requirements.

8.4. To illustrate how the process might work in practice, we have made some working assumptions in this section, largely around the timing for activities. These are not definitive and timings will need to be assessed as part of the Switching Programme:

- We have set a working assumption that registration requests will be sent to CRS by 17:00 hours. This is illustrative to demonstrate that we expect activities and processes to be completed in time for registrations to become effective the next calendar day (either at the start or at the end of that day).
- We have illustrated that requests may be responded to by CRS within 60 seconds. This will have to be subject to impact assessment for technical feasibility, cost and impact on delivery timescales, but it sets an expectation of the order of magnitude of service performance.

### **Consumer enters into a contract with gaining supplier**

8.5. A consumer will be able to enter into a contract on one day and to start being supplied by their preferred new supplier the next day. Consumers will be given a choice of a longer switching period so that they can pick a start date that meets their specific needs (eg linked to the end of a fixed-term contract or timed to coincide with when they will be moving into a new premises).

8.6. Consumers may enter into contracts with a gaining supplier through TPIs such as price comparison websites or brokers. TPIs will need to be able to send confirmation of a consumer's request for supply to suppliers quickly so that the supplier can undertake any further checks it requires before sending a switching request to the CRS.

8.7. In designing the CRS, there is an opportunity to consider how the relationship between suppliers and TPIs is best managed to support next-day switching and the extent to which TPIs can have access to the CRS services (eg supply point data).

## **Gaining supplier registers the switching request**

8.8. The gaining supplier will be able to submit a switch request to the CRS on any calendar day up to a specified time (eg 17:00 hours). The switch can be scheduled to take place the next calendar day (or on a later date if requested by the consumer). We will consider the potential for a supplier to specify the “next available switching date”. This may be preferable to a rejection for switching requests that are made close to a cut-off time.

8.9. A gaining supplier will be able to send a single switch request to the CRS to coordinate the switching of both gas and electricity supply points. The switch request will contain the necessary information relevant to the switching of both supply points including the MPAN and MPRN.

## **CRS rejects the switching request**

8.10. Where the transfer request is rejected by the CRS system (eg due to a data error), the gaining supplier will be notified quickly by the CRS (eg within 60 seconds).

8.11. The gaining supplier will therefore be able to determine quickly if the switch will proceed. For start of next-day switching, the switch should be capable of being effective from 00:00 hours the following day for electricity or 05:00 hours for gas (or at some future date agreed with the consumer). For end of next-day switching, the switch should be capable of being effective from midnight the following day for electricity or 05:00 hours the day after that for gas.

8.12. The CRS would also reject the request if the switch date was during a lock out period. A lock out period is a period after a switch when a further switch cannot take place. This is discussed further below.

8.13. We will examine if a dual fuel switch should be rejected in its entirety if there is an issue with one fuel. An alternative could be to allow suppliers to choose how best to meet the requirements of their consumers.

## **Losing supplier blocks the switching request (objections)**

8.14. If objections are to be permitted under next-day switching, a radical change to the objections process is needed. Our proposal for start of next-day switching is that the CRS will hold information for each domestic and non-domestic supply point that determines whether a proposed transfer request is or is not blocked. The current supplier will be responsible for maintaining the status of that data. We will also consider an option for start of next-day switching whereby the current supplier would be required to respond and object to a pending switch notification from the CRS in near real time.

8.15. Where the objections process is retained and the transfer request is blocked by an objection from the current supplier, both suppliers will be notified of the objection by the CRS within 60 seconds of a transfer request being submitted.

8.16. Any objection to a transfer request must be made in accordance with Supply Licence Condition 14 (SLC14) of the gas and electricity supply licence conditions. The incumbent supplier will notify the consumer that they have objected to the proposed transfer in accordance with their licence obligations.

8.17. As with the current arrangements, a new supplier will only be able to identify if a site would be objected to by entering into a contract with a consumer and submitting a switching request that is accepted by the CRS.

8.18. We will also examine the potential for a compressed objection window – the time period in which a supplier may object to a transfer. For example, a one-day objection window would support an end of next-day switching process (ie without the need to implement a central objections database referred to above).

8.19. As noted above in Section 2, Ofgem is reviewing the role that objections play in energy markets.


8.20. The new arrangements will incorporate rules to allow a new supplier to flag if the customer is a new occupant. This will limit the current supplier's ability to object to a switch where the objection grounds relate to the previous occupant. These arrangements will need to be robustly governed to ensure the accuracy of the information provided.

## **Consumer cancels the switching request**

8.21. Domestic consumers typically have a statutory 14-day cooling-off period during which they may cancel a supply contract.

8.22. The CRS will support a process for returning a consumer to their previous supplier in the event of a contract cancellation. Where the consumer sends a cancellation notice within the cooling-off period, the gaining supplier will initiate a switch back to the losing supplier. The consumer will return to their previous supplier on the contract terms and conditions that they would have been on had they not switched. The use of this process will be governed in the SEC and will require a change to the supply licence conditions to require a term in supply contracts so that they do not terminate if the customer cancelled the contract with the new supplier during the cooling-off period. Key features of the process are:

- The consumer need only contact the gaining supplier to notify them that they have terminated the contract.
- The gaining supplier will initiate the process to switch the consumer back to the losing supplier.



## Moving to reliable and fast switching

- The losing supplier will contact the consumer to notify them that they are again their supplier and confirm the contract terms on which they are being supplied.
- Consideration will be given to the use of meter readings and the processing of metering data in this process, including for settlement.
- Consideration will be required on the timing of final bills and how this interacts with a customer's ability to cancel a switch.
- Consideration will be required on which supplier will be responsible for billing the consumer for energy consumed while they are with the new supplier. In particular, should the new supplier bill for that short period of supply or should there be continuous billing from the incumbent supplier.
- Arrangements will be defined for consumers that cancel during the cooling off period and want to switch to a different supplier.

8.23. We will consider if this process could also be adapted to return a consumer's supply point to the original supplier following an erroneous transfer.

## **CRS notifies and completes the switching request**

8.24. Shortly after a transfer request has been received by the CRS (that is not rejected or objected to), the CRS will notify the losing supplier of the supply start date and any other relevant information. Our working assumption is that the CRS will send this notification within 60 seconds.

8.25. The CRS will ensure that all relevant industry parties are informed when a switch has taken place. As well as confirming to the gaining and losing supplier and relevant GT or DNO, there will be the option for including notifications directly to metering services providers, other third parties appointed by the consumer, settlement parties and the DCC in respect of its smart meter access control requirements.

8.26. The current electricity arrangements prevent a supply point from switching again in the two weeks following a switch. This sought to ensure that both the gaining and losing suppliers were able to manage the complexities of a switch, including the appointment and de-appointment of metering agents (see below) and consumer billing. Consideration will be given in the Blueprint stage as to whether this lock-out period is required, following electricity and gas switches. Our aim is to only include lock-out periods where necessary and to minimise the length of any lock-out periods that might be required. We will also examine if the rules for lock-out periods should be varied to quickly correct an erroneous transfer or allow a customer that has cancelled a contract during the cooling off period to switch back to their previous supplier.

## Change of supplier meter reading process

8.27. The Change of Supplier meter reading process must be efficient<sup>27</sup> and reliable. Processes must be defined for all consumer and metering types within scope of the Switching Programme.

8.28. To ensure that there is continuity in billing and settlement and consumers are only billed once for units consumed when switching supplier, the meter reading used by the losing supplier for closing their customer's account should be from the same point in time as that used by the gaining supplier for opening their customer's account. The consumer should also be in a position to understand their meter reads and bills such that they can be confident they have been accurately billed.

8.29. The Change of Supplier meter reading should be timed to allow consumers to begin benefiting from their new tariff as close as possible to when the switch takes place. Access to the meter read must facilitate timely and accurate billing, and the timely transmission of appropriate data into settlement.

## Arrangements for accessing consumption history and MTDs in electricity

8.30. For the reasons stated in the February 2015 decision document, we do not think that holding consumption history and comprehensive MTDs centrally for smart, AMR and traditional electricity meters is necessary to support reliable next-day switching.<sup>28</sup> However, in the event that existing reforms, or any further incremental improvements, are shown to be insufficient, and there is a compelling case made by industry, there could be scope for further review of centrally held metering data during the Switching Programme.

## Meter agent processes

8.31. The flow of information between meter agents and the access to relevant data will be considered, to enable meter agents to support fast and reliable switching. We will review how we can design processes which allow suppliers to meet their obligation around MOP appointments and provide MAPs with the data required to efficiently charge for asset use.

## Erroneous transfers

8.32. Erroneous transfers occur where a consumer has been switched by a supplier against their wishes. The new switching arrangements will be designed to ensure, as

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<sup>27</sup> This includes minimising a supplier's dependencies on agents and competitors, where this delivers benefits.

<sup>28</sup> It should be noted that some MTDs are already held on central systems, such as meter serial number. We envisage that these data items would continue to be held centrally.

far as reasonably practical, that the gaining supplier only switches the supply point for the consumer with whom they have a valid contract.

8.33. We have identified two areas that can improve on the current arrangements, and which we will explore:

- Linking gas and electricity address data. There is an opportunity for cleansing address data where existing dual fuel suppliers can ensure that the address data held for both fuels match. In addition, Unique Property Reference Numbers (UPRN) can be used to match supply points with geographic locations; a particular benefit where the supply point does not have a postal address.
- Where a smart meter is installed there may be opportunities to use two-way communication so that the gaining supplier can confirm the correct gas Meter Point Reference Number (MPRN) or electricity Meter Point Administration Number (MPAN) with the consumer.<sup>29</sup>

8.34. This will require further exploration with DCC, DCC Service Providers and industry within the Switching Programme.

8.35. We will explore whether there are any other aspects of the design of the CRS services that can support suppliers in meeting requirements to switch the correct supply point, for example in how TPI services may obtain and use registration data from the CRS.

## Transfer of gaining supplier security credentials

8.36. As noted above, security keys are designed and built into smart meters as part of the smart metering installation and roll-out. Transitional arrangements reliant on the DCC exist to support changing the keys to the new supplier during the main installation stage. For the long term however, an enduring change of supplier process which places reliance on energy suppliers is being considered by the Smart Metering Implementation Programme led by the Department of Energy and Climate Change. The SCR will support the new arrangements when they are implemented.


## Additional switching issues

8.37. We will review the existing registration documentation in industry codes to ensure that all relevant processes are incorporated and are consistent with the new switching arrangements. We will also look to improve these processes where possible. These processes will include:

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<sup>29</sup> Each supply point will have a unique reference number known as the MPRN and MPAN in the gas and electricity markets respectively.





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- Processes for returning erroneously transferred consumers.
- Processes for amending a change of supplier meter read, for example when it is disputed.
- Processes for assignment of debt.

8.38. On assignment of debt we will look to further simplify the current process so that PPM customers with debt can switch quickly and avoid the current constraints that require the old supplier to object, even where the consumer has given prior permission for relevant data to be exchanged between suppliers for the purpose of debt assignment. We will also consider any requirements on assignment of debt that are identified as part of Ofgem's review of objections.

8.39. In designing the new arrangements there will also be a need to identify and acknowledge the range of supporting contractual and working arrangements that are expected to be necessary to facilitate reliable next-day switching, for example, in relation to the appointment of metering agents.

## 9. Governance arrangements

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9.1. This section describes the governance arrangements for the new switching requirements and the CRS.

### **DCC and GT/DNO licence obligations**

9.2. Existing licence requirements on GTs and DNOs to provide registration services will be removed.

9.3. DCC licence obligations will be modified to incorporate responsibility for providing the CRS. The DCC licence will contain obligations for DCC to establish and maintain an efficient, economical and secure CRS that would provide a platform for fast and reliable switching for all Supply Points in the GB market. The licence condition will define the scope of the service.

9.4. The DCC licence will have obligations to provide a CRS that, among other things, facilitates a reliable, fast and cost-effective switching process and effective competition between market participants.

9.5. The DCC licence will set out obligations on CRS funding and charges, procurement, and regulatory reporting (eg quality of service and price control).<sup>30</sup>

9.6. We will review if the GT and DNO obligations to provide enquiry services should be moved to DCC.

9.7. The governance arrangements will establish obligations and incentives for DCC to deliver the registration services to CRS Users that meet required performance levels and do so efficiently. Key outputs will be identified to serve as performance metrics and be backed by financial incentives.

### **Supply licence obligations**

9.8. All suppliers will be required to sign and comply with the SEC. This will require a change to the licences of non-domestic suppliers who are not currently required to do this (although they can do so on a voluntary basis).

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<sup>30</sup> In July 2015 we consulted on DCC's transitional licence obligations and funding arrangements up to the point that the CRS is procured. <https://www.ofgem.gov.uk/publications-and-updates/dccs-role-developing-central-registration-service-and-penalty-interest-rate-proposals>

## SEC structure

9.9. Currently the SEC has been prepared to support the implementation of smart meters and the provision of DCC's services. However, the market participants who will have an interest in registration services are not exactly the same set that will use DCC's smart metering services. For example, suppliers who only deal with high-volume metering points and gas shippers are not currently parties to the SEC. All suppliers will be users of the registration services.


9.10. Consideration will therefore need to be given to how the SEC should be structured, for example, to permit market participants who only have an interest in registration services to be a party to the SEC in respect of those services only. The advantage of this approach would be to remove those market participants from the SEC obligations associated with entry testing and security that are needed for the operation of smart metering. It would also segregate the charging for services, so that parties only pay for the services that they are using.

9.11. Introducing a partition in the SEC (or other such mechanisms) that separates smart metering services from registration services will introduce complexities. For example, it may be necessary to operate different arrangements for managing modifications, with different voting arrangements to accommodate the variations in user constituencies and representation on the various committees that oversee the SEC.

## SEC governance

9.12. The SEC will govern the day-to-day arrangements and set the rules for switching and management of registration services, although, as highlighted above, there may be some supporting requirements that would be more effectively retained in the existing industry codes. It will:

- Define a set of business processes which the CRS must support. Business processes will be defined by data elements, obligations for parties sending and receiving data, and the timing and service levels of key processes.
- Set out the obligations for DCC, suppliers, and network operators in respect of the operation of the CRS.
- Define the industry party that is responsible for particular data items held on the CRS and who is permitted to update them. It will set out which parties will be able to access what data and in what circumstances, including through any required enquiry services.
- Define the process for modifying the arrangements, dealing with non-compliance and charging for services. These will be based on the existing SEC provisions, but will need to be adapted to deal with the different requirements and market participants related to registration services.



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- Include procedures to recognise where SEC modifications will need to be aligned and consequential modifications made with other codes.

9.13. The SEC will establish obligations on market participants for the data held on the registration system relating to:

- The type of data.
- The SEC party responsible for providing the data.
- The SEC party accountable for the ongoing accuracy of the data.
- The SEC party(ies) permitted to change the data.
- The SEC parties permitted to access the data.
- The roles and rights of non-SEC parties in relation to data.
- The arrangements needed to monitor and assure the performance of market participants to ensure standards of data accuracy.

## Role of gas shippers


9.14. Consideration will need to be given to the role of gas shippers. Gas shipping is a separate licensable activity. Gas shippers, not suppliers, are signatories to the UNC. For current registration activities, the gas shipper will pass service requests and data between the GT and the supplier. The gas shipper is responsible for managing the requirements of the UNC and paying network and gas balancing charges.

9.15. In nearly all cases, the gas supplier will hold a gas shipper licence; they will be the same organisation. In these cases, there will be a related gas supplier that is a party to the SEC in respect of registration services and the gas shipper being a party to the UNC for network operational matters.

9.16. However, it is possible for a gas shipper to provide services under contract to a number of separate gas suppliers. We will establish arrangements that permit a gas shipper to operate its business processes where the supplier has direct access to the registration services. We will also establish arrangements for the shipper to act as the supplier's nominated agent for registration purposes.

9.17. The key risk when a gas supplier undertakes registration activity directly with the CRS is that a supplier would gain or lose metering points without the shipper's knowledge. Were this to happen, the shipper would risk incurring balancing charges. We will explore the following potential mitigations:

- A shipper could become a SEC party (potentially under the 'Other SEC Party' category) and to be able to subscribe to receive updates on switching that



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result in changes to the portfolio of supply points linked to its market participant identity.

- A shipper could rely on updates via the existing UNC arrangements subject to the timing of updates of GT systems.
- A link between the supplier and shipper could be pre-registered so that incorrect combinations in data flows were rejected.
- As noted above, a shipper could act as a supplier's registration agent.

### **Link between SEC and other industry codes**

9.18. An assessment will need to be made on the relationship needed between the registration provisions in the SEC and other relevant industry codes. We anticipate that network operators will maintain their own systems for network management and billing. Separate systems will also be maintained for energy settlement. We expect these systems and their respective codes will continue to contain rules for maintenance of industry data items, including those accessed through the CRS. These systems will require regular updates on switching activity.

9.19. The interface between the CRS and network operators and between the CRS and settlements bodies will need to be defined and governed to provide appropriate change control. Similarly, suppliers will need to update their systems and processes to reflect the interaction with the CRS rather than the current interfaces with gas and electricity registration services.

## 10. Charging arrangements for the CRS

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10.1. We set out below the arrangements for DCC to charge relevant parties for the provision of the CRS.

10.2. In addition to the ongoing operation of the CRS post implementation, DCC will incur costs associated with its contribution to development activities within the Switching Programme, and procurement of the CRS. Subject to extending the DCC's licence to allow this, such costs will be recovered within DCC's existing charging regime.<sup>30</sup>

### Governance

10.3. The existing governance relating to charging is split across the SEC and the DCC licence. We expect the charging objectives and charging methodology under the current DCC governance arrangements to be reviewed as part of the Blueprint phase, and we recognise that not all of these may be relevant to the CRS and switching.

### Charging methodology

10.4. The existing DCC charging regime is a mixture of Fixed Charges (per meter), as well as Elective and Explicit Charges (i.e. optional services) to SEC Parties reflecting costs seen by DCC based on the charging objectives.<sup>31</sup> The vast majority of costs that DCC presently face are of a fixed cost nature and are recovered from energy suppliers, GTs and DNOs via the per meter Fixed Charges. The Explicit Charges reflect the incremental costs related to using elements of the system and are a very small element overall, for example, for a dedicated secure data link between each user and DCC. The costs of operating the CRS will need to be recovered within this regime (as defined /extended for the CRS). Elective charges are for services agreed under bi-lateral agreements.

10.5. The charging methodology for determining the charges that DCC's users pay for its services will be amended to include charging for the CRS Users. We consider that the existing charging principles underlying this regime are appropriate for the CRS. DCC is required to publish a charging statement setting out the charges for services each year and this will be expanded to include the CRS once the changes to the charging methodology are in place.

10.6. An amendment to DCC's Fixed Charges, specifically relating to the CRS, may be required within the charging methodology. This is because the current Fixed Charges are recovered from all domestic meters and enrolled (small sites) non-domestic meters but Fixed Charges will be allocated according to parties' number of

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<sup>31</sup> The charging objectives are set out in LC 18 of the DCC licence and repeated in Section C of the SEC.

DCC-enrolled meters at the end of the smart meter roll-out programme. By contrast the CRS will cover all registered meter points, including those that are not DCC-enrolled meters (eg non-smart and larger non-domestic sites). Work will therefore be required to define the share of the CRS charges that each type of user will attract.

10.7. Work will be required to identify what types of activities will be chargeable by the CRS. In particular, in addition to Fixed Charges, whether Explicit Charges should be introduced for any additional services that parties may choose to use.

## **Credit arrangements**

10.8. The existing SEC regime includes credit cover requirements for service users and default arrangements should they fail to meet their payment requirements. This regime is currently considered appropriate to be extended to the CRS.

## **Transitional arrangements**

10.9. Arrangements will be put in place to define DCC's requirements and funding prior to the implementation of the CRS. We expect this to take the form of new DCC licence obligations such that the associated costs can be recovered via DCC's existing charging regime, as amended. We consulted on these proposals in July 2015.<sup>32</sup>

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<sup>32</sup> DCC's role in developing a Central Registration Service and penalty interest rate proposals  
<https://www.ofgem.gov.uk/publications-and-updates/dccs-role-developing-central-registration-service-and-penalty-interest-rate-proposals>

## 11. CRS price control arrangements

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11.1. We set out below how DCC is expected to be funded for the provision of the CRS.

### CRS price control

11.2. DCC is subject to price control arrangements related to its licence activities that support the requirements for its operation to be economical, efficient, coordinated and secure.

11.3. During the Blueprint Phase, we will assess the most appropriate type of price control for DCC's role in providing the CRS. We currently expect DCC's enduring price control, post implementation, to be amended to include an ex ante price control term related to a defined CRS requirement (with the majority of costs fixed upfront), as is the case for network companies. This would be consistent with Ofgem's longer-term strategy of reviewing the existing DCC price control to assess whether an ex ante framework would be more appropriate in the future.<sup>33</sup>

11.4. As noted above, we will consider developing incentives as part of a price control regime to reward DCC for certain actions, for example in improving data quality, which brings benefits for consumers.

### Impact on existing network price controls


11.5. Currently, registration services are provided and funded by DNOs and GTs. When the CRS is established, their obligations will reduce substantially. This may lead to cost savings for some firms. However, they will also be required to build and maintain arrangements that support the exchange of data with the CRS and their existing systems, which could lead to additional costs.

11.6. The current price controls run from 2015 to 2023 for electricity and from 2013 to 2021 for gas. Cost changes due to the CRS would therefore fall during this price control period. Although there is a possibility of reopening a price control should costs change significantly during a price control period, we do not believe that this would be a realistic option here. There is a materiality threshold for reopening the price control: this is set at one percent of average annual base revenue after the application of the efficiency incentive rate. The changes to costs created by the CRS are expected to be an order of magnitude below this threshold.

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<sup>33</sup> Ofgem, DCC price control consultation, p.37-38. (<https://www.ofgem.gov.uk/ofgem-publications/91527/dccpricecontrolconsultation.pdf>)





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11.7. iDNOs and iGTs may incur costs around interfacing with the CRS. Since the independent networks are subject to a relative price control with respect to the monopoly networks, we expect that the same approach will be taken towards them as for the monopoly networks.

## 12. Delivery approach for the CRS and switching arrangements

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12.1. This document describes at a high level what the future switching and registration arrangements will look like. This section describes how they will be implemented once codes and licence modifications have been agreed.

12.2. At this stage, we have planned a number of activities to deliver the CRS and provide the necessary assurance that the new switching arrangements will work:

- **CRS delivery** - how the CRS will be procured and tested internally to be ready to test as part of the wider switching arrangements.
- **Market readiness and testing** - what is required to provide assurance that the market is ready to go live with the new market arrangements.
- **Transition and implementation** - how the market moves from current arrangements to the new switching arrangements on the CRS.

12.3. The most efficient and effective implementation model will be considered during the Blueprint phase of the Switching Programme and will take into account lessons from the Smart Metering Implementation Programme (SMIP) and other large scale industry change projects, including those outside energy. We have described what these might look like in this section.

### CRS procurement

12.4. The DCC's licence will require it to procure the CRS via an external competitive tendering exercise and award the contract to a third party (ie not to the DCC or its affiliates). We expect that this procurement will be executed in accordance with the DCC's published procurement strategy<sup>34</sup> and in accordance with the procurement principles in the Smart Metering Licences (see licence condition 16).

12.5. We expect that this procurement will appropriately involve Ofgem and other stakeholders (eg including review of the process and key products – evaluation criteria, scoring, etc.).

12.6. To allow effective procurement, the design baseline and service standards for the CRS will be clear, appropriate and take into account the views of stakeholders. A clear design baseline will be required at key stages of the CRS procurement and

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<sup>34</sup> <https://www.gov.uk/government/consultations/dcc-procurement-strategy-and-statement-of-service-exemptions>



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development to determine the requirements against which the CRS is being procured.

12.7. Through the procurement process, we expect DCC to establish, agree and enter into a contract with the CRS provider (CRSP). DCC could choose to enter into contract with more than one provider to deliver the CRS requirements. The contact(s) must:

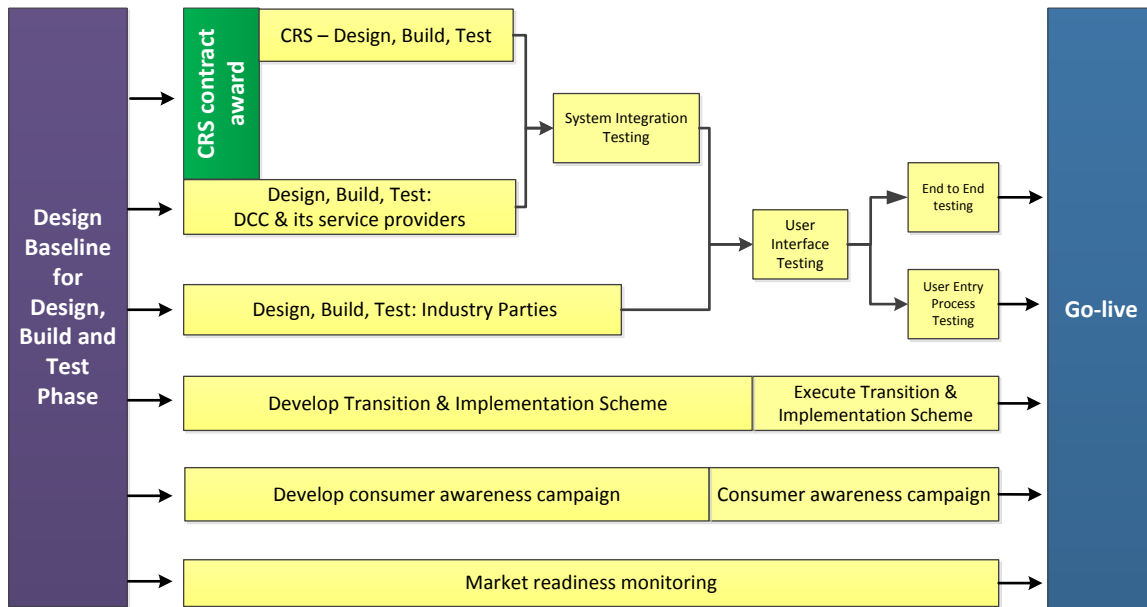
- be cost effective
- complement the overall plan for the Switching Programme and do not place the delivery plan under undue risk
- have acceptable terms and conditions, and
- have stakeholder confidence in the ability to deliver, on time and to cost, a CRS which is consistent with the design baseline.

12.8. The CRSP's(s') contract length will be considered in the Commercial Workstream, taking into account learning from the timescales of other contracts that have been placed with the DCC.

## Implementation activities after CRS procurement

12.9. We have considered what the implementation activities might look like after the completion of the final development design baseline and procurement of the CRS. These are summarised in Figure 7, below.

**Figure 7: Summary of potential delivery activities**



12.10. These activities would deliver a CRS that is fit for purpose and provide assurance that new switching arrangements work and can be used by market participants.

12.11. We expect that there will be a set of assurance activities to provide the Switching Programme Board with the necessary information to inform its decision on Go-Live. We will review the requirement for independent assurance on market and CRS readiness to support this decision.

## Testing

12.12. We have set out a series of testing phases to demonstrate what might be undertaken in the Switching Programme. At this stage, this is not a definitive set of tests that we intend to run – it is illustrative.

12.13. We have used naming conventions that are consistent with DECC's SMIP definition of testing, as stakeholders are familiar with it. There will be nuances associated with testing for the Switching Programme and these will be considered through the development of testing strategies and testing material in the lifetime of the Switching Programme. We will consider if: User Entry Process Testing is an enduring requirement or is only required for the testing of participants before Go-Live; and whether the testing of the CRS arrangements take place first, with CRS Users' capability being tested afterwards.

12.14. For any testing phase there will need to be a testing strategy defined and then a testing plan to show how it is executed and how incremental assurance on the CRS and switching arrangements is delivered. Each testing phase will require scripts, test data and expected results. Testing is intended to build confidence incrementally and we expect that there will be entry and exit criteria defined for each of these activities. The Switching Programme should not go-live unless defined criteria are met.

12.15. There will be preparatory activities completed earlier within the Switching Programme to ensure that these implementation activities can be executed robustly.

## CRS Design, Build & Test

### CRS Design & Build

12.16. Once contracted, we expect that the CRSP(s) will finalise the detailed design of the CRS from the design baseline they have been contracted to. This will enable industry to develop their services to the required timescales and service standards.

12.17. The CRSP(s) will build its service to the specified detailed design baseline with processes, systems, physical environments and operational interfaces.

## **CRS Internal Testing**

12.18. There will be a series of internal testing phases defined by DCC. These will provide increasing levels of assurance on the capabilities of the CRS service until it is ready for testing together with the other services operated by DCC and its service providers in an integrated DCC environment. Consideration will be given to the need for independent assurance that testing has been successfully completed.

## **Design, Build & Test: DCC (and its service providers)**

12.19. We expect that the development of the CRS will require changes to DCC's, and its service providers', processes, systems and interfaces. Once all of the required industry code modifications and licence condition changes have been agreed, we expect that DCC will initiate the detailed design, build and test of all of the relevant services provided under its licence, in line with an agreed timetable and to the quality standards specified.

## **System Integration Testing (SIT)**

12.20. We expect that DCC will undertake SIT to prove that the new CRS integrates with its service providers, as well as any activities and services that need to be undertaken at DCC itself. We expect that this will operate in a similar way to SIT defined within the SMIP<sup>35</sup> to demonstrate that DCC is capable of delivering all services set out in its licence and relevant industry codes (including that these services are scalable to the expected volumes).

12.21. SIT provides confidence that any integration issues at DCC are resolved in advance of wider industry testing with the new CRS.

## **Design, Build & Test: Industry Parties**

12.22. The modified licences and industry codes will set out obligations on industry parties that will require changes to their processes, systems and interfaces. Once these changes have been agreed, we expect that industry parties will initiate the detailed design, build and test of their changes in line with an agreed timetable and to the quality standards specified.

## **User Interface Testing (UIT)**

12.23. UIT enables the CRSP(s) to prove that it can interoperate with the CRS Users in a set of interface tests for the CRS and new switching arrangements. In practice, it

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<sup>35</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/327288/smip\\_system\\_equipement\\_testing\\_consultation\\_response.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/327288/smip_system_equipement_testing_consultation_response.pdf)

is expected that UIT will take place between the CRSP(s) and a group of selected CRS Users.

12.24. We expect that there will be quality standards set for entry into UIT and E2E testing that will ensure industry parties have to demonstrate suitable success of their testing to demonstrate readiness for UIT and E2E testing.

### **End to End (E2E) Testing**

12.25. E2E testing enables the CRSP(s) to demonstrate that it can operate all of the services that it is required to provide. As with UIT, this may be undertaken with a group of selected CRS Users.

12.26. E2E testing will demonstrate that the new market arrangements (including the licence obligations, industry code requirements and design baseline) are fit for purpose. This is achieved by ensuring that DCC, its service providers, and a number of CRS Users successfully complete E2E testing that will run through all of the systems and processes required.

### **User Entry Process Testing (UEPT)**

12.27. UEPT will demonstrate that CRS Users will be able to operate according to their obligations in the new market arrangements (including the licence obligations, industry code requirements and design baseline).

12.28. The expectation at this stage is that all CRS Users will need to have completed UEPT before they can operate in the new arrangements.

12.29. UEPT may not have the same principles as those defined in the DECC SMIP, where UEPT is an enduring set of tests for new entrants into the market. We will look at the principles of the DECC SMIP to understand if they are applicable to switching. One area to explore is the need for any enduring UEPT for new entrants, once the new arrangements have been implemented.

12.30. We may consider whether there is value in informal testing to support CRS Users in advance of formal UEPT.

### **Non-Functional Testing**

12.31. We expect that non-functional testing will be planned, either as a separate set of tests or incorporated in the different phases of testing described above. This is expected to include the non-functional requirements identified in paragraph 7.05. As an example, high volume capacity testing will allow the CRSP(s) to demonstrate that it can operate all of the services it is required to provide, under different scenarios. This will test its capacity to meet all expected requirements.

## Market Readiness Monitoring

12.32. There will need to be monitoring of different market participants, including suppliers, networks and the CRSP(s), to provide assurance in advance of participation in testing and Go-Live. The approach taken is likely to vary by type of market participant. Some examples are shown below for illustration, but this will require further development through the Switching Programme and there is further thinking required on how monitoring will take place:

- The CRSP(s) will be closely managed by DCC against its contract for delivery (potentially with incentives for delivery) in accordance with the timetable and quality standards specified in its contract.
- DCC will be closely managed against its licence and any SEC obligations for delivery in accordance with the timetable and quality standards specified. We expect that DCC will use its contractual framework with its service providers to implement any relevant changes to those arrangements.
- CRS Users will be monitored with readiness reporting required to Ofgem.
- As noted above, there will be criteria defined for entry and exit of each testing requirement.
- Go-Live criteria will be established that must be met before the new arrangements can be implemented.

## Consumer Awareness Campaign


12.33. The Switching Programme will support the delivery of a consumer awareness campaign so that consumers know that the new switching arrangements are in place. There will be a set of definition and preparation activities required and the scope and nature of these activities will be agreed. It will be important to define who has responsibility for delivery of the consumer awareness campaign activities.

## Transition and Implementation Scheme (TIS)

12.34. The TIS will describe how the implementation of the CRS and new switching arrangements, through to operation, will be managed.

12.35. The TIS will incorporate:

- Arrangements for the migration and any cleansing of data including how data cleansing would be funded.
- Arrangements for the transfer to new governance arrangements (ie from programme governance to the enduring arrangements under licences and industry codes).



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- An implementation plan including the identification of key milestones and dependencies.
- Roles and responsibilities of key stakeholders with regard to the TIS' requirements.
- Governance of the TIS during the transition period.
- How the governance and change management process during design, build and test (as described below) will be closed and new SEC-governed change management will be introduced.

12.36. The TIS will define how the CRS and the new switching arrangements will be implemented. Options for the implementation technique include all parties implementing at the same time (ie 'Big Bang'). An alternative would be for a more gradual or 'staged' approach (eg based on geographic regions, market segments (including meter type or consumer types) or restrictions on volumes of transactions). A further alternative would be for the CRS to incorporate the functionality to process transactions using current file formats such that more ambitious suppliers could adopt the new arrangements more quickly whilst others undertook a slower transition.

12.37. The TIS aims to manage transitional issues and implementation risks for industry and consumers. It will be developed and refined during the Switching Programme. We will consider whether development of the TIS should be made the responsibility of an individual party. We expect that it will be consulted upon and agreed through the Switching Programme governance structure. We will also consider which parties should deliver and oversee the operation of the TIS and how assurance will be provided that the elements of the TIS are on track.

12.38. We will consider the requirements for regulatory obligations for CRS Users during the transitional governance arrangements to complete the activities set out in the TIS that will enable Go-Live.


## **Design, Build & Test: Phase Governance and Change Management**

12.39. There are likely to be changes to the design baseline against which the CRSP(s) has been initially contracted and industry parties/DCC are building against. Therefore, there will be a change management process in place to amend any changes to the baseline before Go-Live in a transparent and structured way.

12.40. The requirement for the CRSP(s) to adopt revised baselines will be incorporated within the terms of the contract.

12.41. The change management process will incorporate (amongst other things) the following:





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- A mechanism to assess any potential change against a set of agreed criteria including technical feasibility, cost, risk and delivery timing.
- Each change or set of changes agreed at a certain point will be recorded as a new baseline.
- The Switching Programme will provide notice of all revised baselines over this period and the CRSP(s) will amend its design, build and testing arrangements accordingly and industry parties will build to the new baseline.
- CRSP(s) will notify DCC and industry if it considers that changes to the design baseline are required for it to build or test appropriately.

## Appendix - Glossary

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### A

#### Automated meter reading (AMR)

A type of smart meter that allows one way communication to remotely collect consumption data.

### B

#### Balancing and Settlement Code (BSC)

The BSC contains the governance arrangements for electricity balancing and settlement in Great Britain.

### C

#### Centralised Registration Service (CRS)

A future service, procured and run by the DCC to facilitate switching at gas and electricity premises.

#### Centralised Registration Service Provider (CRSP)

The party (or parties) contracted with the DCC to provide the CRS.

#### Change of Supplier Expert Group (COSEG)

Expert group formed by Ofgem with representatives from suppliers, networks, industry code experts, consumer representatives and government to help develop key aspects of the change of supplier process.

#### Cooling-off period

Domestic consumers will typically have a 14-day cooling off period when they enter into a contract with a new energy supplier. During this time a domestic consumer can cancel the service contract it has entered into with the energy supplier.


### D

#### Data Aggregator (DA)

As part of the electricity settlement process, the party appointed by a supplier to package up consumption data to meet the requirements set out in the Balancing and Settlement Code.

#### Data and Communications Company (DCC)

The Data and Communications Company (DCC) is a central communications body appointed to provide the communications and data transfer and management



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required to support smart metering. It is responsible for linking smart meters in homes and small businesses with the systems of energy suppliers, network operators and other companies. The DCC will deliver data and communications services for smart meters through its external providers.

### Data Enquiry Service (DES)

A web based tool operated by Xoserve for the gas market, designed to be used by authorised users to interrogate certain data relating to a supply point.

### Deemed contract

When a supplier supplies gas or electricity to a premise or a customer, without a contract having been agreed between the parties. The terms are subject to regulation: charges cannot be unduly onerous and customers are free to switch without penalty, unless they meet the debt objection criteria.

### Distribution Connection and Use of System Agreement (DCUSA)

This industry code provides a single centralised document, which relates to the connection to and use of DNO networks. It was established in October 2006 as a multi-party contract between the licensed electricity DNOs, suppliers and generators.

### Distribution Network Operator (DNOs)

Distribution Network Operators (DNOs) own and operate the distribution network of towers and cables that bring electricity from our national transmission network to homes and businesses. There are also a number of independent DNOs (iDNOs) that typically provide network services for new developments.

### Dual fuel

A type of energy contract where a consumer takes gas and electricity from the same supplier.

## **E**

### Electricity Central Online Enquiry Service (ECOES)

A national database that holds customers' MPANs as well as other site and metering data.

### Electricity or gas supplier

A company licensed by Ofgem to sell energy to and bill consumers in Great Britain.

### Erroneous transfer

An erroneous transfer occurs when a consumer has their supplier switched without having given consent to that transfer.

## **G**

### Gaining supplier

The supplier that is taking over the supply of gas and/or electricity at a supply point.

### Gas Transporter

There are eight large Gas Transporters (GT), each of which covers a separate geographical region of Great Britain. There are also a number of independent GTs (iGTs) that typically provide network services for new developments.

### Green Deal

A government initiative that helps consumers make energy efficiency changes to their homes community spaces, and businesses at no initial upfront cost. The scheme works by costs of energy efficiency improvements being recouped through instalments that are collected in the energy bill for the property. This means that a bill payer will only be responsible for payments whilst living at the property. The electricity registration arrangements (MPAS) record if there is a Green Deal plan in place at a supply point.

## **I**

### Industry codes

Industry codes and agreements underpin the gas and electricity markets and set out detailed rules for the gas and electricity markets that govern market operation and the terms of connection and access to the energy networks. The codes are contracts between signatories and provide a level playing field for services provided by central/monopoly providers, and contain interoperability requirements between competitors.

## **L**

### Licence Exempt Network

A licence exempt network is a local distribution system which is run as private wires. In May 2008, the European Court of Justice delivered a judgement which determined the right of all consumers to choose their supplier freely, and all suppliers to deliver to their customers freely, regardless of the type of distribution system.


### Losing supplier

The supplier that is losing the right to supply gas and/or electricity at a supply point.

## **M**

### Master Registration Agreement (MRA)

The Master Registration Agreement (MRA) is a governance mechanism to manage the processes established between electricity suppliers and distribution companies to



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enable electricity suppliers to transfer customers. It includes terms for the provision of Metering Point Administration Services (MPAS) Registrations.

### Meter Operator (MOP)

Meter operators are responsible for installing and maintaining meters.

### Meter Asset Provider (MAP)

Meter asset providers own and lease metering equipment to suppliers and consumers.

### Meter Point Administration Number (MPAN)

A unique reference code for each supply point connected to the electricity network.

### Meter Point Administration Service (MPAS)

Each regional electricity distributor in the UK (also known as the Distribution Network Operator, or DNO) operates the MPAS for a specific area of the UK.

### Meter Point Registration Number (MPRN)

A unique reference code for each supply point connected to the gas network.

## **N**

### New supplier

The supplier that has taken over the supply of gas or electricity at a supply point.

## **O**

### Objections

The objections process permits an energy supplier to prevent a consumer from switching to another supplier in accordance with circumstances defined in the standard conditions of the supply licence.

### Ofgem

Ofgem is the Office of Gas and Electricity Markets, which supports the Gas and Electricity Markets Authority (GEMA), the body established by section 1 of the Utilities Act 2000 to regulate the gas and electricity markets in Great Britain. It does this by promoting competition, wherever appropriate, and regulating the monopoly companies that run the gas and electricity networks.

### Old supplier

The supplier that previously supplied gas and/or electricity at a supply point.

## **P**

### Prepayment meter (PPM)

A prepayment meter is a type of meter that allows consumers to pay as they go for their energy.

### Project Nexus

Project Nexus is an industry project that aims to introduce new gas settlements and IGT registration arrangements.

## **R**

### Radio-teleswitch

Radio-teleswitch meters are remotely switched between Non-Half Hourly tariff registers. Messages are sent via the radio long wave network, to switch a customer's electrical storage and immersion heating on and off. This allows for a more dynamic management of the network than usual economy 7/10 meters which have a pre-defined switching time.

### Registration

Each network company is required by its licence to maintain a register of supply points connected to its network. This register includes an address and unique reference number for each supply point as well as the identity of the supplier responsible for it.

## **S**

### Significant Code Review (SCR)

The SCR mechanism is designed to facilitate complex and significant changes to the codes that energy companies are required to abide by. It enables Ofgem to undertake a review of a code-based issue and play a leading role in facilitating code changes through a review process.

### Smart Energy Code (SEC)

The Smart Energy Code (SEC) came into force on 23 September 2013, when the [Data Communication Company's](#) (DCC) licence was granted. The SEC is a multiparty contract which sets out the terms for the provision of the DCC's services and specifies other provisions to govern the end-to-end management of smart metering in gas and electricity.

The DCC, suppliers and network operators are required by licence to become a party to the SEC and comply with its provisions. Other bodies who wish to use the DCC's services, such as energy efficiency and energy service companies, must accede to the SEC to do so.

### Smart meter

A meter which, in addition to traditional metering functionality (measuring and registering the amount of energy that passes through it), is capable of providing additional functionality, for example two way communication allowing it to transmit meter reads and receive data remotely. It must also comply with the technical specification set out by the government.

### Smart Meter Implementation Programme (SMIP)

A programme of work led by the Department of Energy and Climate Change (DECC) to implement arrangements that support the roll-out of smart meters.

### Switching Programme

This programme concerns the process used by industry to transfer a consumer from one supplier to another. Smart metering presents an opportunity to improve this process. Ofgem's ambition is for a fast, reliable and cost-effective process that facilitates competition and builds consumer confidence.

### Switching process

The process by which a consumer transfers from one supplier to another.

### Supplier of Last Resort (SoLR)

A supplier appointed by Ofgem to resume the responsibility for supplying gas and/or electricity to customers of a failed supplier without significantly prejudicing its ability to continue to supply its existing customers, and to fulfil its contractual obligations for the supply of gas or electricity.

### Supply Point Administration Agreement (SPAA)

This industry code sets out the inter-operational arrangements between gas suppliers and GTs. It is a multi-party agreement to which all domestic gas suppliers and all gas transporters are required by their licences to sign and comply with.

### Supply point register

A system that maintains the lists of supply points on a network and holds the postal address, identity of the supplier and information on the characteristics of the supply and installed metering system for each supply point. Each supply point will have a unique identifier (the Meter Point Administration Number in electricity or Meter Point Registration Number in gas).

## T

### Third Party Intermediaries

Third Party Intermediaries (TPIs) include switching websites, energy brokers and energy efficiency advice providers who interact with energy consumers. TPIs can offer advice and products to assist with a range of functions including energy procurement, efficiency and management.



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### **U**

#### [Uniform Network Code \(UNC\)](#)

The Uniform Network Code defines the rights and responsibilities for all users of gas transportation systems and provides all system users with equal access to the transportation services.

#### [Unique Property Reference Number \(UPRN\)](#)

A UPRN is a unique twelve digit number assigned to every unit of land and property in the Great Britain.

#### [Unmetered supply](#)

Electronic equipment that draws a current and is connected to the distribution network without a meter recording its energy consumption.

### **X**

#### [Xoserve](#)

Xoserve is the Gas Distribution Networks' Agent and provides centralised information and data services for gas transporters and shippers in Great Britain.