

Delivering Faster and More Reliable Switching: proposed new switching arrangements

Consultation

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Overview:

We want to let consumers switch energy supplier reliably and quickly, including by the end of the next working day if they choose. We will do this by simplifying and harmonising the gas and electricity switching arrangements in a cost-effective way.

We have developed a preferred reform package (RP2a – reliable next-day switching), which we believe will achieve all these objectives. RP2a will provide a flexible and friction-free switching platform that will support future market and product innovation, and deliver reliable and fast switching. This proposal requires a new centralised switching service (CSS).

We are now consulting on our proposals for the design, delivery and governance arrangements and the supporting impact assessment.

Please send us your response to this consultation by 3 November 2017 and we will publish our decision in early 2018.

Context

The Switching Programme is one initiative within a broader set of reforms that aim to encourage consumers to engage with the energy market, and to improve their experiences of doing so.

The roll-out of smart meters, reform of electricity settlement arrangements, work to facilitate a transition to a more flexible energy system and other projects have the potential to transform the retail energy market. Our Switching Programme reforms are being developed to align with, support and leverage the benefits of these related initiatives. Our work is also aligned with the Competition and Markets Authority's energy market investigation remedies, which aim to improve the functioning of competition.

Associated documents

Ofgem, [UK Link and the proposed Central Switching Service](#), July 2017

Ofgem, [Strategic Outline Case](#), January 2017

Ofgem, [Moving to reliable and faster switching: Switching Significant Code Review launch statement](#), November 2015

Ofgem, [Moving to reliable and fast switching: Updated Target Operating Model and Delivery Approach – Decision](#), November 2015

Ofgem, [Moving to reliable and fast switching: Target Operating Model and Delivery Approach v2](#), November 2015

Ofgem, [Moving to reliable next-day switching – Decision](#), February 2015

Ofgem, [Moving to reliable next-day switching: Consultation on Target Operating Model and Delivery Approach](#), February 2015

Ofgem, [Moving to reliable next-day switching – Consultation](#), June 2014

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Executive summary

We are committed to making the energy market work better for consumers by improving their experience of switching, leading to greater engagement in the retail energy market. We are doing this by designing and implementing a new switching process that is reliable, fast and cost-effective and harmonises processes across gas and electricity. This will build consumer confidence and facilitate competition, delivering better outcomes for consumers.

Since we published our Strategic Outline Case¹ in January we have gathered data from the industry and evaluated the costs and benefits of the options for reform.

This document describes the package of reforms that we propose to implement. **Our reforms will deliver next-day switching as a new industry standard and improve reliability of the switching process through reducing complexity and better management and oversight of industry data. It will introduce new, flexible, harmonised dual-fuel systems which can respond to the significant changes already underway in the energy market.**

Why are we introducing reliable next-day switching?

The current switching processes can be unreliable and slow. They were designed in the last century, and in some instances rely on outdated IT systems. The underlying data is poorly managed and this results in errors and problems during the switching process. This is unacceptable for today's energy market. They cause direct consumer detriment and create a consumer perception that switching is a hassle. Our consumer research confirms that this hassle factor is one of a number of reasons driving consumer disengagement in the energy market. Switching currently takes on average two to three weeks, which compared with other markets already looks slow and out-of-date given rising consumer expectations driven by new technology.

In a competitive energy market, it is vital that consumers can be confident that they can easily and quickly change their energy supplier, or else they may choose not to do so. We are concerned that the energy retail market is not working for all consumers. In particular, the around 60% of households who have not recently, or ever, made an active choice about their energy tariff are paying more than they should. The recent Competition and Markets Authority investigation reinforced the fact that disengaged consumers are not served well by the energy market, and they could make significant savings if they were to switch.

Not everyone needs to switch for the market to work well and for there to be wider consumer benefits. Increased switching will exert additional competitive pressure on suppliers, causing them to consider the prices they charge for all their customers and

¹ https://www.ofgem.gov.uk/system/files/docs/2017/01/switching_programme_-_strategic_outline_case.pdf

the services they provide, for fear of losing market share. These potential indirect, dynamic competition benefits are significantly greater than the – still important – direct consumer benefits from faster and more reliable switching.

The energy market is facing rapid change: the roll-out of smart meters, more players entering, more new non-traditional business models, exponential technological development and applications in the sector leading to more new products and services being offered to customers. We cannot predict where the innovation of the future will come from, but we consider that retaining the old existing arrangements and a three-week switching process will hold back innovation and act as a disincentive for new entrants. By contrast, switching mobile phone providers takes only up to two days, while current account switching, with a guarantee of reliability, takes seven. Neither the existing arrangements in the energy sector, nor all of the underlying systems, are flexible enough for the changing market.

We will introduce faster and more reliable switching that will unlock innovation, creating more competitive pressure and improving outcomes for consumers, both in price and quality of service. It will put in place arrangements fit for the changing future.

The Switching Programme is part of a range of interventions Ofgem is making to help people and businesses to engage in the energy market. We are leading this programme because there are few incentives for industry players to drive a thorough reform of the switching arrangements to reduce the barriers to switching. Within the current regulatory and industry code framework, industry is unable to deliver major reform programmes of this nature.

We have published an Impact Assessment (IA) alongside this consultation, which analyses the costs and benefits of the proposed reforms. We believe the net benefits to consumers for the proposed reform package (RP2a – reliable next-day switching) are between £169m and £1,056m.

Our proposed new switching arrangements

In our proposed reform package (RP2a) the switching functionality that currently exists in separate gas and electricity switching services would be replaced with a single Central Switching Service (CSS). We will harmonise and speed up the processes in gas and electricity so that consumers can submit a request to a supplier to switch by 5pm and be with that supplier by midnight the following working day. The process for a non-domestic consumer would take an additional working day.

The CSS would be responsible for making sure meter points are accurately matched to premises addresses from an authoritative GB database. Gas and electricity switching processes would be harmonised where appropriate. In gas, suppliers would initiate a switch, rather than shippers as is currently the case. Should a supplier wish to object to a customer loss, they would have until 5pm on the next working day to do so for a domestic customer, and until 5pm on the second working day for a non-domestic customer.

We believe that introducing reliable next-day switching best meets the programme objectives at an acceptable cost. In particular, it will deliver dynamic competition and innovation benefits.

Speed and reliability of switching

The new arrangements will deliver a switching system that will support next working day switching and that could be adapted with minimal cost to support same-day switching. Following a brief transitional period, we expect suppliers should switch customers next working day, as an industry standard. We propose to introduce a regulatory requirement, as a backstop, on suppliers to switch customers within five working days of a contract being entered into. We will consider whether the maximum switch time should be tightened for all suppliers to offer next-day switching.

Some customers do not want to switch supplier quickly and would prefer to wait, for example until the cooling-off period has expired. Other customers may also want to set a date for the switch, for example because they are moving house or because they want to schedule the switch for the end of a contract. Customer choice is important, and we will not prevent suppliers from responding to customer demand if they request a switch longer than the five-day regulatory maximum. A supplier will be free to agree any switch date with a customer that the customer wants, taking account of the objection window timeframe. But we do expect suppliers to change their processes and practices and switch customers within five working days, and preferably next working day, as a default.

We recognise that shortening the time to process a switch would also mean there is less time to identify and correct errors and anomalies. So to prevent erroneous switches, the CSS, a new data model, and data cleansing will improve data quality. That should reduce the number of switches that require correction of data during a switch or cases where data anomalies lead to switches failing or going wrong.

We are proposing a short transitional period (we suggest three months) while industry familiarises itself with the new next working day switching arrangements and the impact of the changes to the data model can be tested.

During the transitional period, suppliers will be expected to switch customers in five working days (ie a request submitted on a Monday would take effect at midnight on Friday night/Saturday morning). This extra time will allow data to be validated or corrected, and to prevent erroneous switches.

In this transitional period we expect all industry parties to operate as they would for next working day switching, except that the majority of suppliers would set the switch date for midnight at the end of the fifth working day. To support competition and innovation, we support faster switching during the transitional period, but only where it can be done without an unacceptable risk to customers.

Regulatory governance

We propose to create a new Retail Energy Code to provide a streamlined governance process for the regulations covering switching and other retail issues. We also propose to introduce transitional obligations on market participants to require them to play their part in the implementation of the new arrangements effectively and promptly.

Next steps

This consultation seeks your views on the IA and our proposal to move forward on the basis of our preferred reform package (RP2a). We will consider responses and publish a decision on the new switching arrangements in January 2018. We have adapted our previous planning assumption for developing the detailed level specification and are already working on the basis of RP2a to minimise the risk of nugatory work. This does not pre-empt the outcome of the consultation, but allows the programme to continue making progress. We will ensure that any changes to that assumption as a result of this consultation are implemented as soon as possible to minimise unnecessary cost.

We expect detailed design work to be complete by early 2018, and drafting of necessary industry code requirements and licence conditions will start during 2018. We are not yet proposing definitive delivery dates for programme implementation as we need to do more work to fully understand the design, build and test requirements. We will produce a firm delivery plan as soon as we can. We will continue to challenge the programme timelines to ensure we deliver change as soon as possible.

1. Introduction

1.1. We want to make the energy market work better for consumers by improving experience of switching, leading to greater engagement in the retail energy market. We are doing this by designing and implementing a new switching process that is reliable, fast and cost-effective. This will build consumer confidence and facilitate competition, delivering better outcomes for consumers.

1.2. We are consulting on our proposal to implement changes to the switching arrangements, focusing on delivering a fast and hassle-free experience for consumers and making them fit for purpose for the future. Our preferred reform option is known as Reform Package 2a (RP2a). It will put in place a harmonised gas and electricity switching process that will deliver reliable next-day switching, allowing customers to be with their new supplier at the end of the next working day after they have entered into a contract. It will deliver significant benefits for consumers, including through providing a platform for suppliers and other parties to innovate and compete. The switching process will be quicker and smoother for everyone.

1.3. This document sets out our assessment of the four reform packages that we have developed, including RP2a. Our assessment covers design, delivery, regulatory and commercial requirements.

1.4. Chapter 2 summarises the impacts of the reform packages. The full impact assessment is published alongside this document². Chapter 3 describes the design of RP2a, and Chapter 4 seeks your views on the risks and benefits of using an open competition run by the Data and Communications Company (DCC) as the means to procure the communications services for the new switching arrangements. We set out views on switch speed and reliability in Chapters 5 and 6 respectively.

1.5. We are also taking this opportunity to consult on other parts of the programme. Chapter 7 describes the delivery approach. In Chapter 8 we request your views on our proposal to develop a new industry code, the Retail Energy Code (REC), which would incorporate the switching rules.

1.6. Information on how we propose to manage the Switching Programme was published in the January 2017 Strategic Outline Case.³

²https://www.ofgem.gov.uk/system/files/docs/2017/09/delivering_faster_and_more_reliable_switching_impact_assessment.pdf

³ See [Strategic Outline Case](#) Chapter 7

Switching Programme objective and scope

1.7. Our subsidiary objectives summarise what we aim to achieve through the Switching Programme. These are used both to communicate our aims to stakeholders and as a means of assessing the relative strength of different reforms we have considered during our Blueprint phase work. The subsidiary objectives are:

1. To improve consumer experiences and perceptions of changing supplier, leading to increased engagement in the market, by delivering a switching service that:
 - a. Is more reliable, thereby reducing the instances of consumers being let down by delayed, unsuccessful or unwanted switches.
 - b. Offers consumers control over when they switch, including providing the capability of doing so as fast as possible, and by no later than the end of the following day after a consumer has entered into a contract.
 - c. Minimises any differences in consumer experiences of the switching process, to the extent that is possible, taking into account any physical constraints imposed by metering and issues relating to consumers' indebtedness.
2. To deliver a simple and robust system architecture design that harmonises business processes across the gas and electricity markets where possible, and can efficiently adapt to future requirements.
3. To encourage more effective competition by minimising market barriers to entry for newcomers, including the extent to which a successful switch may rely on the actions of an incumbent, and by having appropriate safeguards in place where this is not possible.

1.8. The programme's scope covers all activities from the point at which a consumer confirms they wish to switch, to the point they receive an accurate closing bill from their previous supplier and an opening bill from their new supplier, or choose to exercise their right to cool off, cancel their contract, and agree another. The scope also includes any search for meter point information required to process a switch, such as address and meter information. Our review of the switching arrangements covers both the domestic and non-domestic segments of the retail energy market, and all metering types.

1.9. The scope of the potential reforms includes changes to the regulatory framework, reviewing existing network licence obligations linked to the registration of switches, and developing the new centralised systems used by the industry to process consumer switches in the gas and electricity markets. This incorporates reforms to the existing switching processes to harmonise gas and electricity switching arrangements.

1.10. There are other activities and issues not in scope. These include consumer acquisition activities by suppliers and their representatives, the switching arrangements for consumers that are directly connected to the national electricity and gas transmission networks, and consolidation of industry codes.⁴

More about the programme phases

1.11. The Switching Programme is divided into five phases. This consultation and the subsequent decision, that we expect to publish in early 2018, are the end of the first phase of the programme, known as the Blueprint phase.

1.12. During the Blueprint phase, Ofgem chaired workstreams covering design, delivery, regulation and commercial aspects. The Blueprint phase began at the end of 2015.

1.13. We used the output of our Blueprint phase industry engagement to develop the Strategic Outline Case (January 2017)⁵. This included three reform packages of which we asked industry to assess the impacts. We assessed this information, and began to understand more about the impacts. We then refined these reform packages and developed a new package, RP2a.

1.14. We want to implement our proposed reform package in 2020. To allow us to meet this target, we have started the next phase of the Switching Programme, the Detailed Level Specification phase which details how the chosen reform package will operate to support procurement and drafting the required industry code and licence modifications.

1.15. The Detailed Level Specification phase commenced in March 2017 on the basis of Reform Package 2 (RP2). This option offered the least risk of nugatory work once a reform package had been chosen. The assumptions that underpin the Detailed Level Specification phase have now moved from RP2 to RP2a on the basis of the assessment outlined in this document. In doing this we have not sought to prejudge the outcome of this consultation.

⁴ The full details of the scope of the programme, including complete information of what is included and excluded, were set out in version 2 of our Target Operating Model for reliable and fast switching: Ofgem, [Moving to reliable and fast switching: Target operating model and delivery approach v2](#), November 2015 with further commentary in the January 2017 SOC.

⁵ https://www.ofgem.gov.uk/system/files/docs/2017/01/switching_programme_-_strategic_outline_case.pdf

Next steps

1.16. We welcome responses to our consultation questions, summarised in Appendix 1 and any other issues that you would like to raise in relation to this document. Please send your response by close 3 November 2017 to switchingprogramme@ofgem.gov.uk.

1.17. We expect to publish our decision in early 2018. A further document will consult on the detail of licence and industry code modification proposals in Spring 2018.

1.18. The Detailed Level Specification phase will continue its work based on the RP2a assumptions in this document. We will finalise the design assumptions after we have analysed the responses to this consultation. If we need to change the assumptions as a result of the consultation, or further engage with industry through the Detailed Level Specification phase before publishing the decision, we will discuss this with industry before the Switching Programme Senior Responsible Officer makes a decision on the final reform package.

1.19. At the end of the Detailed Level Specification phase we will publish a full technical specification of the chosen reform package. This will be used to support procurement of any required services, for example the CSS, and to develop the necessary changes to industry codes and participant licence conditions. This should give market participants the technical information they need to make the changes to their own systems and processes.

1.20. On 27 July 2017, we published a consultation on UK Link's role in the proposed CSS. We are seeking (until 29 September 2017) views on whether there would be significant benefits, disadvantages or risks from a CSS based on UK Link. We are also consulting on whether changes would be required to allow Xoserve to bid into an open competition run by DCC for the provision of the CSS. We will consider the responses to that consultation alongside the responses to this one, and ensure that the decision being published in January 2018 takes both into account.

Near-term improvements

1.21. We want strong industry-led action to make switching more reliable for consumers ahead of the implementation of a CSS and new processes. We describe our RP2a reliability proposals in Chapter 6, including the plan for a single premises-served address database with rigorous data stewardship. This will make switching significantly more reliable. We also believe that industry should make major improvements now, with quick and easy changes.

1.22. Our push for early reliability improvements is led by the Switching Programme's Near Term Improvement workstream. We believe it is important that

industry delivers improvements to reduce the current number of unreliable switches, such as erroneous switches, before we shorten switching timescales.

1.23. We are supporting industry-led improvements on erroneous switches within the Erroneous Transfer Working Group (ETWG) commissioned by the Master Registration Agreement (MRA) and Supply Point Administration Agreement (SPAA) panels. The ETWG is continuing to develop improvements to reduce the number of erroneous switches, such as the introduction of an industry-wide erroneous switch performance assurance scheme, and to make the resolution process better. Given the impact that erroneous switches have on consumers' perceptions of switching and their propensity to engage in the market, we are calling on the industry to make rapid progress. We are also considering whether there is more we can do to ensure suppliers give due focus on mitigating erroneous switches and helping consumers where they do happen.

1.24. We are also supporting Energy UK's development of the Energy Switch Guarantee as we believe it is an important way to increase consumer confidence in the switching process ahead of our programme delivery, and increase consumer switching. We are calling on industry to ensure that the consumer protections offered by Energy Switch Guarantee can be strengthened, the number of suppliers who are signatories to the Energy Switch Guarantee increases, and more consumers are aware of the Energy Switch Guarantee.

1.25. We are also leading data improvement remedies that do not depend on the creation of the CSS. This work focuses on reducing the number of outdated plot addresses in industry address systems and ensuring meter technical details are up to date. We want to drive these data improvements and work with industry to implement them via the standard industry code modification procedure before the implementation of the CSS. We will also consider if there are opportunities to validate meter point address data via smart meter visits.

Related developments in the energy market

1.26. The Switching Programme is one initiative within a broader set of reforms to encourage consumer engagement and give consumers a better experience of the energy market when they do engage. We summarise some of these related initiatives below.

Smart meters

1.27. Energy suppliers must take all reasonable steps to roll out smart meters to domestic consumers and small business customers by the end of 2020. The smart meter rollout is already under way and, as at 30 June 2017, more than 7.5 million smart and advanced meters were operating across Great Britain. This means that most consumers will already have smart meters installed when the Switching Programme changes would come into effect. Smart metering presents an opportunity to make retail energy markets work better for consumers. Smart meters will bring an

end to estimated billing and will give consumers near real time information on energy use – expressed in pounds and pence – allowing them to better manage their energy use, save money and reduce emissions. They will also open up new sources of flexibility and new ways consumers can engage with the market.

1.28. Smart metering can help to make the switching process faster and more reliable for consumers by enabling industry parties to remotely and securely access accurate and up-to-date information, such as consumption and technical data. Following a switch, data on the new supplier and tariff are available on the meter, building confidence that the switch has taken place. As part of the Switching Programme, we want to leverage these potential benefits, and ensure that future switching systems and processes align with an energy system in which smart meters have been rolled out.

Half-hourly settlement

1.29. We are leading work to reform the electricity settlement arrangements to enable suppliers to use actual half-hourly data from domestic and smaller non-domestic consumers to reconcile supply purchases and actual demand. This is part of broader collaborative work with the Department for Business, Energy and Industrial Strategy (BEIS) to move towards a smarter, more flexible energy system that delivers lower bills, lower carbon emissions, enhanced security of supply and a better quality of service.

1.30. Half-hourly settlement can help to deliver this by putting incentives on suppliers to help consumers move their consumption to periods when electricity is cheaper to generate and transport (or to export electricity in periods when it is beneficial to the system). Our work is proceeding in two parts. In the first part, we removed barriers to elective half-hourly settlement with final changes going live on 29 June 2017. For the second part, we are considering the move to market-wide half-hourly settlement. We launched a Significant Code Review (SCR) on 24 July 2017, which we will use to consider the design of the Target Operating Model, the Business Case, and key policy considerations.⁶ We envisage that the decision on if, when and how to implement market-wide half-hourly settlement should be taken by the second half of 2019, supported by the final target operating model and full business case. This will be preceded by an outline business case in mid-2018. The Switching Programme is working closely with the half-hourly settlement project team to identify and address links and dependencies between the two pieces of work, and to ensure that any changes we make to the switching arrangements support any changes to electricity settlement arrangements.

⁶ <http://www.ofgem.gov.uk/publications-and-updates/electricity-settlement-reform-significant-code-review-launch-statement-revised-timetable-and-request-applications-membership-target-operating-model-design-working-group>

Future retail regulation

1.31. The retail energy market is undergoing far-reaching changes. Our regulatory framework needs to promote innovation and support new market entrants, while providing robust protection to consumers and putting a firm responsibility on industry to deliver good consumer outcomes. To this end, we are committed to making greater use of principles rather than detailed prescriptive rules in how we regulate.

1.32. Our transition to a more principles-based regulatory framework is gathering pace. We have already removed large amounts of prescriptive rules that limited a supplier's ability to design, sell and market tariffs in innovative ways. This prescription has been replaced by five new enforceable principles that require suppliers to enable consumers to make an informed choice.⁷ We have also made some important changes to the principles-based domestic and non-domestic Standards of Conduct licence conditions.⁸ These changes will make sure there is a strong and future-proof safety net in place that protects consumers from poor supplier conduct.

1.33. Ensuring the Standards of Conduct, and other principles-based obligations, provide a strong and future-proof safety net will also provide us with greater scope to remove more prescriptive rules for the supply licences. We are currently reviewing the significant body of prescriptive rules relating to supplier-customer communications. We want to remove unnecessarily prescriptive rules that are preventing suppliers from using innovative methods and technologies to engage with consumers and help them to understand their options.⁹

⁷ Ofgem, <https://www.ofgem.gov.uk/publications-and-updates/final-decision-enabling-consumers-make-informed-choices>, April 2017.

⁸ Ofgem, [Final decision: Standards of conduct for suppliers in the retail energy market](#), August 2017.

⁹ <https://www.ofgem.gov.uk/publications-and-updates/open-letter-reforming-our-rules-related-domestic-supplier-customer-communications>

2. Impact assessment summary

Chapter summary

This chapter summarises the costs and benefits of the reform packages that we have assessed. It concludes that RP2a provides the best outcome for consumers, in particular taking into account reliability. Our assessment considers both direct costs and benefits which can be quantified and the wider benefits of a more competitive market, which are difficult to quantify. It also includes a number of illustrative scenarios to consider the additional savings if increasing numbers of consumers switch as a result of these reforms.

We estimate that RP2a would provide a positive Net Present Value (NPV) for consumers in the range £169m to £1,056m. We expect RP2a to deliver additional consumer benefits that we have not monetised from future innovation and competition. The full IA is published alongside this consultation.

Question Box

Question 1: Do you agree with our assessment that RP2a provides the best value option to reform the switching arrangements for consumers, and with the supporting analysis presented in this consultation and the accompanying IA? If not, please provide evidence.

Options under consideration

2.1. We have assessed four reform packages in our IA, in addition to the 'do nothing' counterfactual option. The reform packages that we have assessed include the original three that we gathered cost information on through our January 2017 request for information. We have made a small number of adjustments to these following an assessment of the policy variations that we tested. In addition to the optimised versions of those three packages, we have also assessed a new reform package (RP2a). This was developed in response to the cost information that we gathered. The options are:

- **Reform Package 1 - "Enhanced existing systems" (RP1)** - The existing switching services (UK Link for gas and the Meter Point Registration Service (MPRS) for electricity) and enquiry services (the Data Enquiry Service (DES) for gas and the Electricity Central Online Enquire Service (ECOES) for electricity) would be retained. The quality of industry address data would be improved through a one-off data cleansing and matching process, and two working-day switching for domestic consumers (three working days for non-domestic consumers), would be achieved through a series of changes to industry processes.
- **Reform Package 2a - "Reliable Next Day Switching" (RP2a)** - The switching functions of UK Link and MPRS would be replaced by a single new

CSS. In addition to a one-off cleansing and matching process, industry data quality would be improved with a new a single premises address database, and then quality sustained through improved ongoing maintenance arrangements. Changes to industry switching processes would enable switching at the end of the next working day for domestic consumers and two working days for non-domestic consumers. The existing enquiry services, ECOES and DES, would not be replaced as part of the Switching Programme. Transitional regulatory requirements will protect reliability for consumers during the immediate period after go-live.

- **Reform Package 2 - "Same Day Switching" (RP2)** - As for RP2a, but instant messaging and calendar day operation would be introduced for objections, enabling switching to take place at the end of the same calendar day (at minimum, one day faster than RP2a).
- **Reform Package 3 - "Same Day Switching with enhanced information provision" (RP3)** - As for RP2, but ECOES and DES would be replaced by a new central Market Intelligence Service (MIS) as part of the Switching Programme reforms.

Assessment of the options

2.2. Our IA (published alongside this document) considers the full range of costs and benefits of each reform package, and reaches a conclusion on the optimal set of reforms for consumers. Our analysis has led us to identify RP2a as our preferred option. The approach to this assessment, and the results it produced, is summarised below.

Approach

2.3. The IA contains three distinct pieces of analysis.

- Firstly, we have quantified and monetised the majority of the direct impacts of improving the switching arrangements, to create a NPV to consumers for each package. We have assessed costs and benefits over an 18-year period from 2018 to 2035¹⁰.
- Second, we have developed illustrative scenario analysis to demonstrate the potential scale of the indirect benefits to consumers over the same period, for

¹⁰ Our IA is based on a 15-year operational period after implementation period for RP2a. We have chosen this assessment period based on the expected minimum life of the CSS, taking into account the observed life span of existing industry systems.

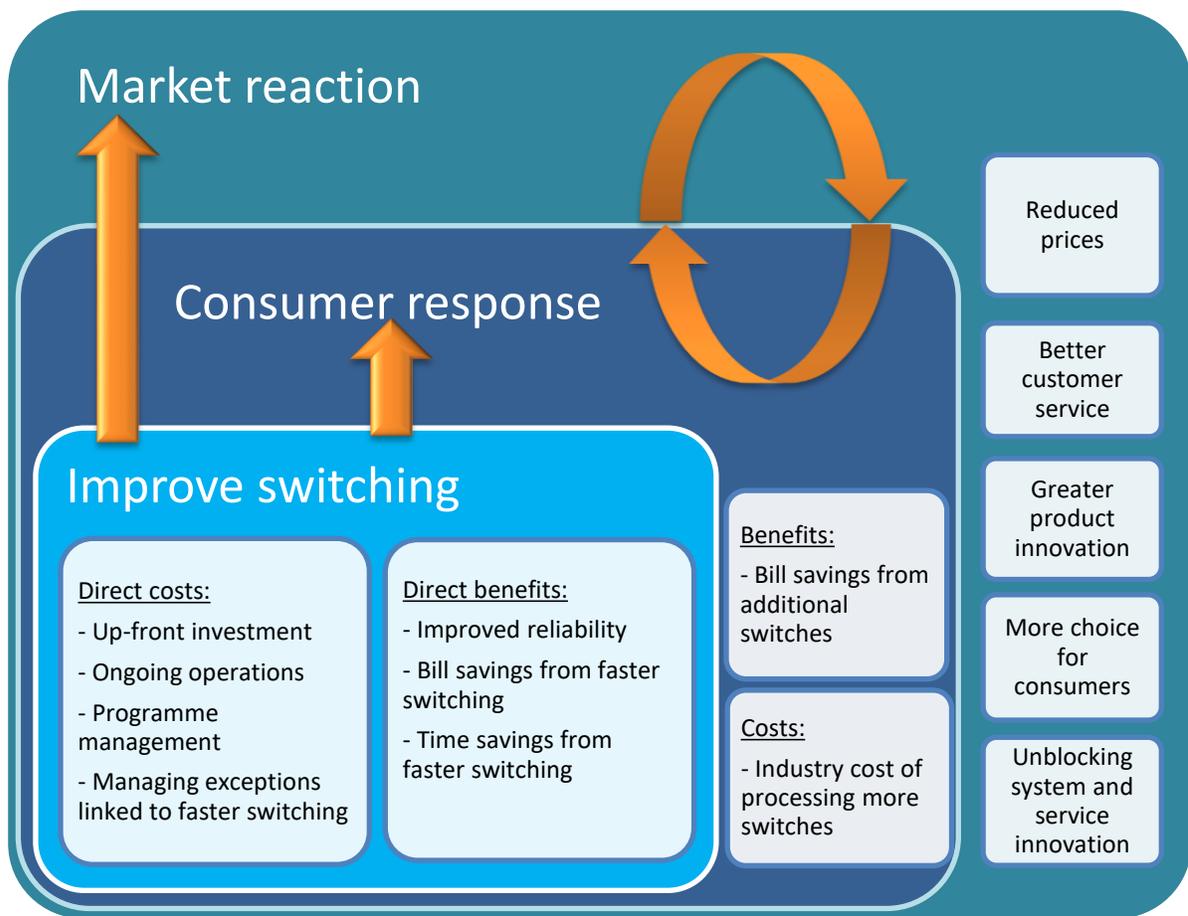
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example savings from increased engagement in the market (the consumer response).

- Thirdly, we have qualitatively assessed the market-wide strategic benefits that are expected to be derived from the market's reaction to these developments.

2.4. The diagram below illustrates the causal relationship between these three categories of impacts.

Figure 1: Summary impacts of our proposals to improve switching



Benefits

Direct monetised benefits

2.5. We have examined the direct benefits that we expect to be accrued by industry parties, as well as consumers, that would have engaged in the market in the absence of the reforms. The direct benefits we have identified and monetised within our IA are:

- **Improved reliability:** Improvements to industry address data quality would reduce the instances of something going wrong for consumers who have chosen to switch. In particular, we would expect a reduction in the volume of erroneous, delayed, and unsuccessful switches. This will save consumers time, and help avoid unnecessary stress and worry. Improved reliability would also reduce costs for suppliers.
- **Faster switching:** Our reforms would improve switching speed, and we have monetised two impacts:
 - time saving to those consumers already switching between suppliers
 - bill saving from faster access to improved terms.

2.6. These monetised assessments are below.

Figure 2: NPV of monetised direct benefits, by reform package (2018-2035, £m)



2.7. Reform Package 1 (RP1) is expected to offer significantly lower improvements to reliability. In particular, the less comprehensive measures to improve and maintain data quality under RP1, coupled with faster switching, would lead to an

increase in erroneous switches, and the associated costs and negative impacts on consumers. For the other reform packages, we expect our data improvement measures to increase the number of switches that go through smoothly, successfully and on time.

2.8. RP2a delivers next working-day switching; to protect reliability as we transition to the new arrangements, we are proposing to include a short (three-month) transitional period. During this period, we will impose additional temporary requirements on those suppliers who wish to switch customers in less than a week. This would give us the opportunity to confirm that the improvements to address data quality have had the expected effect on switching reliability and erroneous switches. Once this has been established the transitional regulatory requirements will fall away. These requirements are discussed in Chapter 5.

Increased consumer engagement: scenario analysis

2.9. Designing and implementing a new switching process that is reliable, fast and puts consumers in control will reduce barriers to switching. We expect this to lead to consumers being more willing to engage in the market and to shop around for the best deal.

2.10. Our consumer research¹¹ has shown that a lack of reliability is a particular barrier to consumers choosing to switch supplier. Many also consider the existing arrangements to be too slow, which reinforces the perception that switching is a hassle. However, consumers expect reliability to be preserved if switching speed is reduced.

2.11. The energy sector is undergoing a radical technology-driven transformation, including with the rollout of smart meters. In the same way that new technology has changed other sectors, this will raise consumers' expectations and the existing slow and unreliable processes are likely to become increasingly anachronistic and unable to keep pace with consumer demands.

2.12. We have considered a range of scenarios to explore the financial savings that would be made if different numbers of consumers responded to the reforms by changing their behaviour, either by switching supplier, or changing tariff with their existing supplier. These indirect benefits are different to the wider impacts that increased consumer engagement has on the overall competitive dynamics of the retail market, which will benefit all consumers.

2.13. It is difficult to predict consumer behaviour. But we have considered a range of conservative scenarios which illustrate the impact of a relatively limited change in consumer behaviour. RP1 is expected to have significantly lower impact on reliability, including an expected increase in erroneous switches. This is because, in the absence of a new CSS, RP1 would not enable all gas and electricity meter points to be matched to a single premises address database, nor easily enable the necessary

¹¹ https://www.ofgem.gov.uk/system/files/docs/2017/09/consumer_research_unreliable_switching.pdf

improvements to ongoing data maintenance and stewardship. We consider that the benefits from increased consumer engagement would not be achieved to the same extent with RP1 than Reform Packages 2a, 2 and 3. The three scenarios we have considered are:

- Scenario 1: Cautious assumptions for the potential scale of the consumer response to our reforms: Includes a one month 50% increase in switching volumes after implementation followed by a 1% increase (ie an additional 78k meter points) in overall switch volumes to the end of the assessment period. There would also be a 2% increase in internal switches throughout the assessment period. This scenario was produced to set out a reasonable lower bound for the likely savings to consumers from increased engagement.
- Scenario 2: Based on the response by consumers to market research¹² into the key barriers to switching. In this scenario, we have assumed a very small increase in switching activity by a proportion of the consumers that indicated reliability, speed, or dual fuel switching were their most important issues. This equates to 10% of households switching one more time during the 15-year assessment period.
- Scenario 3: Based on our understanding of the banking market's response to the 2013 reforms to the current account switching arrangements. These reforms initially led to an increase in competition through product innovation, causing a steep spike in switching between banks. We have assumed an increase in switching volumes of 15% in the first year, 5% for years 2 and 3 and 3% for remaining years. Since the introduction of the new current account switching arrangements, there has been a large rise in customer retention efforts, with banks incentivising their customers to sign up for new accounts with them. In this scenario we have therefore assumed that the internal switch rates increase from 1% in years 1 and 2, to 3% in year 3 and 5% thereafter.

2.14. Full details of these scenarios, and the assumptions that have been adopted, are in our IA. The outputs of this scenario analysis are summarised in the table below. These benefits are NPV estimates, calculated over an 18-year appraisal period. For simplicity, we have not adjusted the scenario analysis to account for the lower expected indirect benefits for RP1.¹³

¹² Source: GfK Energy360, a syndicated energy market tracker

¹³ The expected net direct and indirect consumer benefits for RP1 shown in Figure 2 are therefore overstated.

Table 1: Summary of scenario analysis modelling for the potential savings to domestic consumers from increased engagement (all reform packages)

Scenario	NPV Consumer saving (£m)
1 – cautious assumptions, incorporating additional internal and external switching.	£339
2 – based on consumer research on barriers to switching	£511
3 – based on the experience in the current account market	£908

Non-monetised benefits

2.15. The type of increased consumer engagement illustrated above would drive more competition in the energy market. This would help deliver improved customer service, put downward pressure on prices, offer more choice for consumers, and put suppliers under greater pressure to become more efficient, thereby saving consumers money. These competition benefits are expected to increase over time, as gradually more consumers engage.

2.16. We expect RP2a, RP2 and RP3 to maximise the above competition benefits because they would lead to the greatest improvement in consumer experiences, and generate the largest increase in consumer engagement. For the same reliability reasons above, we would be much less confident that RP1 would generate significant consumer engagement and therefore the wider competition benefits would not be realised under this reform package to the same degree.

2.17. Updating the currently outdated switching arrangements and introducing new, harmonised and fast systems and processes across the gas and electricity sectors is also expected to act as a catalyst for innovation of products and services, both from current players and from new entrants with different business models (for example third-party customer concierge services to manage people’s energy needs). This is supported by our research in other sectors, in particular the introduction of the Current Account Switch Guarantee, which we understand played an important role in increasing product innovation and offering new services to banking customers.

2.18. RP2a, RP2 and RP3 are designed to support potential future requirements and innovation by requiring the new central systems to be built with the capability to process transactions in near real-time and to support same-day switching. They will also facilitate harmonised switching between gas and electricity. We recognise that there are costs associated with requiring all existing and potential parties across the industry to invest in new systems and these could create barriers to entry. Therefore, we consider RP2a to have the greatest potential to support innovation because of the lower costs for suppliers. These innovation-driven benefits would not apply to RP1, which would retain the existing separate gas and electricity systems.

Direct monetised costs

2.19. Each of the reform packages would impose both transitional costs (ie those linked to implementation of the reform packages) and ongoing costs on participants in the industry and Ofgem. Examples of the key costs accounted for in our analysis are below.

Transitional costs:

- Upgrades to existing industry participants' IT capabilities so that they are able to interact with the new central systems;
- Design, procurement, build and testing of the new CSS and the Customer Enquiry Service (CES);¹⁴
- Programme design and engagement costs, including for Ofgem Central delivery assurance costs;
- Training staff to manage and deliver new procedures, including developing new scripts for call centre staff;
- Exercises to migrate data from the existing separate systems for gas and electricity into the new CSS in preparation for go-live, as well as cleanse the data and match meter point numbers to a single newly-procured premises address database;
- Post-implementation costs to monitor the new arrangements in live operation and deal with unexpected problems after launch.

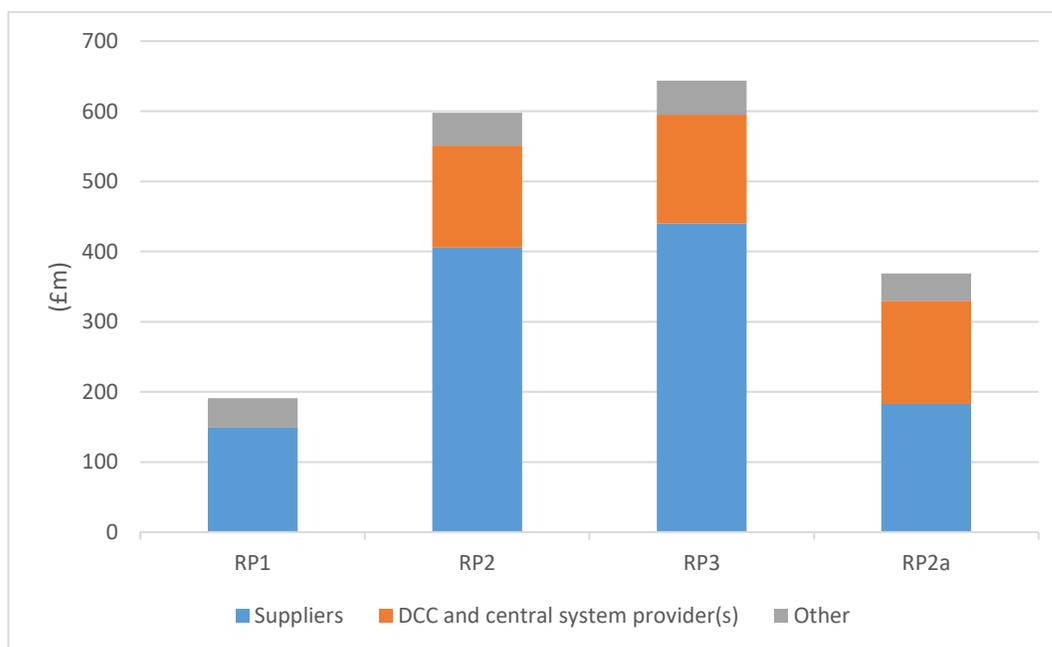
¹⁴ This is a single, centralised facility for consumers to find out the identity of their current supplier and the MPxN for the meter points at their premises. This information can be used by consumers to compare supplier offers and to switch reliably.

Ongoing costs:

- Operation of the CSS, including management of a support contact centre for CSS users and business as usual modifications to reflect user requirements;
- Operation of the CES;
- IT costs for industry participants to maintain and operate their new IT arrangements, including in maintaining an acceptable level of IT resilience;
- Changes to staffing requirements to manage the new processes and customer interactions based on different processes and within tighter timescales;
- Any reduction in costs for parties that are no longer required to perform services or for increased efficiency in the processes operated.

2.20. These costs, which we have estimated using inputs from industry participants, are presented in the chart below. They are NPV estimates, calculated over an 18-year appraisal period. We have set out supplier, DCC and its central system provider costs separately. The "Other" category includes costs for Gas Transporters (GTs), Xoserve, Distribution Network Operators (DNOs), MRA Executive Committee (MEC) (in relation to ECOES), Price Comparison Websites (PCWs), Meter Operators (MOPs), Meter Asset Managers (MAMs) and Meter Asset Providers (MAPs) as well as programme costs and post-implementation costs.

Figure 3: NPV reform package direct costs, by affected stakeholder (2018-2035), (£millions)



2.21. The main differential between the costs in RP2a and RP1 is the cost of implementing and managing the new CSS. RP2 and RP3 are significantly more expensive than RP2a. This mainly results from the estimated increased costs to suppliers of implementing and running an instant reactive objections process on a calendar day basis.

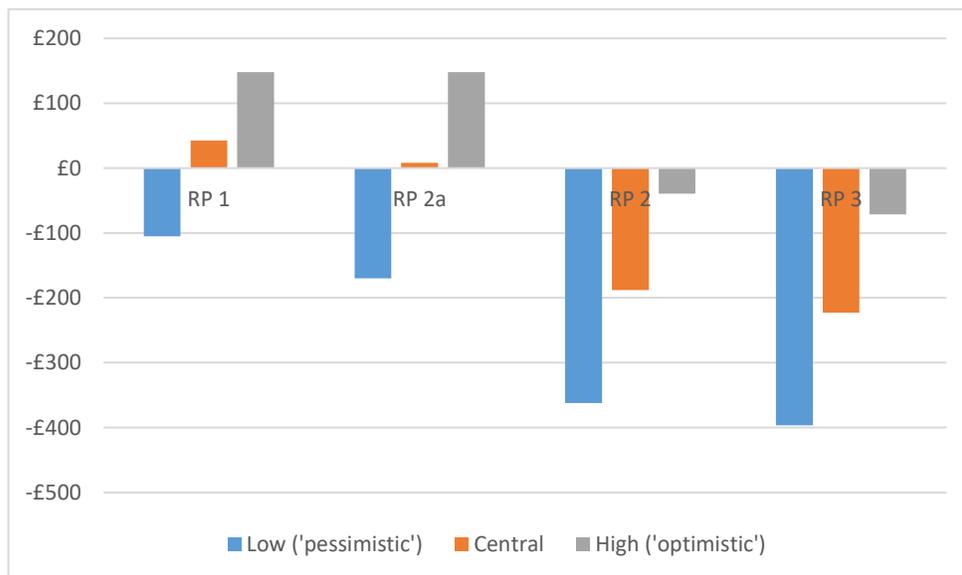
2.22. To enable our analysis of the net impact to consumers of the reform packages, we have made an assumption on the proportion of these direct costs that suppliers will pass through to consumers via increased energy bills. We have adopted a range of 75%-95%, with a central assumption of 85% cost pass-through. The rationale for this range is in chapter 7 of our IA.

Net consumer impacts

2.23. Our IA considers all of the costs and benefits described above to make an overall assessment of which reform package offers the greatest net benefits for consumers. The assessment takes account of both the benefits which can and cannot be monetised. This is necessary to form a complete picture of the impacts.

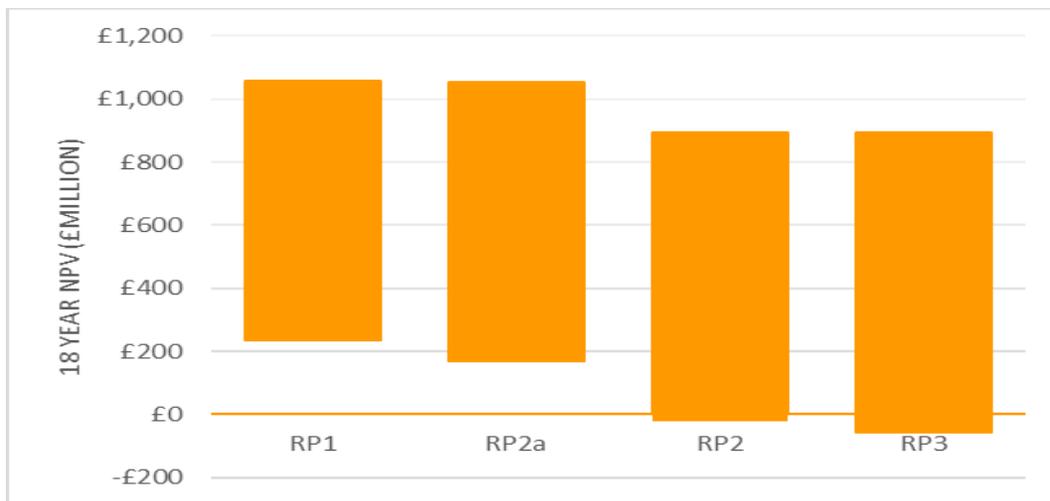
2.24. We combine the monetised estimates for the direct costs and benefits, to create NPV estimates for the direct impacts for consumers. To address uncertainty, we have developed ranges around the direct costs and benefits. These have been used to derive a low, central and high case for each reform package. Our approach is described in the IA and the results are summarised in the chart below.

Figure 4: Direct monetised consumer NPV, by reform package, (2018-2035), (£millions)



2.25. We have combined the net direct cost ranges above with the Scenario 1 and 3 of the indirect benefits. This provides an illustrative range for the net (direct and indirect) benefits to consumers. This is shown in Figure 5 below:

Figure 5: Direct monetised consumer NPV and illustrative indirect benefits, by reform package (£millions)



2.26. For RP2a, the illustrative range is from £169m to £1,056m. The net benefit to consumers would be expected to be even greater than these figure suggest, as they do not capture the wider benefits that we would expect to result from encouraging greater competition and innovation in the market.

2.27. The IA demonstrates that RP2a would deliver the highest positive combination of monetised and non-monetised net benefits for consumers, with the greatest level of confidence of them being achieved. RP2 and RP3 would deliver similar outcomes for consumers as RP2a, but at higher costs and offering less good value for money. RP1 could not be expected to deliver the same level of increased engagement as it would offer less reliable and slower switching than the other packages. It could also hold back potential future innovation and competition in the market due to the retention of existing separate systems for gas and electricity. We have therefore concluded that RP1 would have the lowest net benefit to consumers.

Performance against the programme objectives

2.28. In addition to producing an assessment of the net benefits for consumers of each reform package, we have also used our analysis to rate each of the packages' performance against our programme objectives. These ratings are set out in the table below.

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Table 2: summary of the performance of each reform package against Ofgem’s Switching Programme objectives

Programme Objectives		RP1	RP2a	RP2	RP3
1. To improve consumer experiences and perceptions of changing supplier, leading to increased engagement in the market, by delivering a switching service that:	a) Is more reliable, thereby reducing the instances of consumers being let down by delayed, unsuccessful or unwanted switches.	✓	✓✓✓	✓✓✓	✓✓✓
	b) Offers consumers control over when they switch, including providing the capability of doing so as fast as possible, and by no later than the end of the following day after a consumer has entered into a contract.	✓	✓✓	✓✓✓	✓✓✓
	c) Minimises any differences in consumer experiences of the switching process, to the extent that is possible, taking into account any physical constraints imposed by metering and issues relating to consumers indebtedness.	✓✓	✓✓	✓✓	✓✓
d) To deliver a simple and robust system architecture design that harmonises business processes across the gas and electricity markets where possible, and is capable of efficiently adapting to future requirements.	✗	✓✓✓	✓✓✓	✓✓✓	
e) To encourage more effective competition by minimising barriers to entry for new entrants to the market, including the extent to which a successful switch may rely on the actions of an incumbent, and by having appropriate safeguards in place where this is not possible.	✓	✓✓	✓✓	✓✓	
Cost-effectiveness (as per the programme’s overarching objective)	✓✓	✓✓✓	✓	✓	
Overall assessment against programme objectives		✗	✓✓✓	✓✓	✓✓

Conclusions

2.29. Our analysis let us draw the following key conclusions:

- RP2a – reliable next day switching - is preferred because it offers the most cost-effective solution to deliver fully on our programme objectives. Our analysis also gives us a high degree of confidence that the package would deliver significant net benefits to consumers.
- RP1 – enhanced existing systems – would not deliver sufficiently on our objectives to be considered an acceptable outcome for the programme. In the absence of investment in a new CSS we would be locking in a potential barrier to innovation in the existing suite of systems for many years to come. We would also be choosing to retain the separate systems and processes for gas and electricity when we know that the majority of consumers prefer to operate in a dual fuel market. In addition, our analysis has shown that RP1 is not capable of delivering on both more reliable and faster switching in parallel.
- Mandating all suppliers to introduce the necessary systems and processes to operate same-day switching (instant reactive objections and running calendar day operations), which are the key differences between RP2a and RP2 (same-day switching), would create additional costs. At present, we do not consider these more ambitious options to offer as good value for money for consumers as RP2a.
- We have also concluded that the additional industry-wide costs of implementing and operating with a DCC procured MIS, as described in RP3, – same-day switching with enhanced information provision – does not represent good value. While this has not been a material factor in rejecting RP3, we note that industry is now considering taking forward a programme of work to introduce a new gas and electricity enquiry service that would include the feature of the MIS, with the aim of achieving the benefits of a single, central enquiry service.

3. Preferred reform package design – RP2a

Chapter summary

This chapter describes our preferred reform package, RP2a. RP2a was based on RP2 as presented in the SOC, modified to reflect our analysis of responses to the request for information. RP2a would allow a domestic consumer to switch supplier by the end of the next working day, following entry into a contract.

In addition to enabling next-day switching, RP2a would require the CSS to be future-proofed by being designed in such a way that it could support all permutations of switching speed described in Chapter 5, including differential speeds for domestic and non-domestic consumers.

Question Box

Question 2: Do you agree that CSS should include an annulment feature which losing suppliers can use to prevent erroneous switches? Please provide evidence alongside your response. If you are a supplier, please support your answer with an estimate of the number of occasions over the past 12 months when you might have used such a feature had it been available.

Question 3: Do you agree that CSS should always invite the losing supplier to raise an objection, even where the Change of Occupancy (CoO) indicator had been set by the gaining supplier? If you are a supplier, please support your answer with evidence of the number of times in the past 12 months that you have raised an objection where the Change of Tenancy (CoT) flag had been set.

Question 4: Do you agree that use of the annulment and CoO features should be backed by a strong performance assurance regime? Please comment on ways in which such a regime could be made most effective, and back up your response with evidence.

Features of RP2a

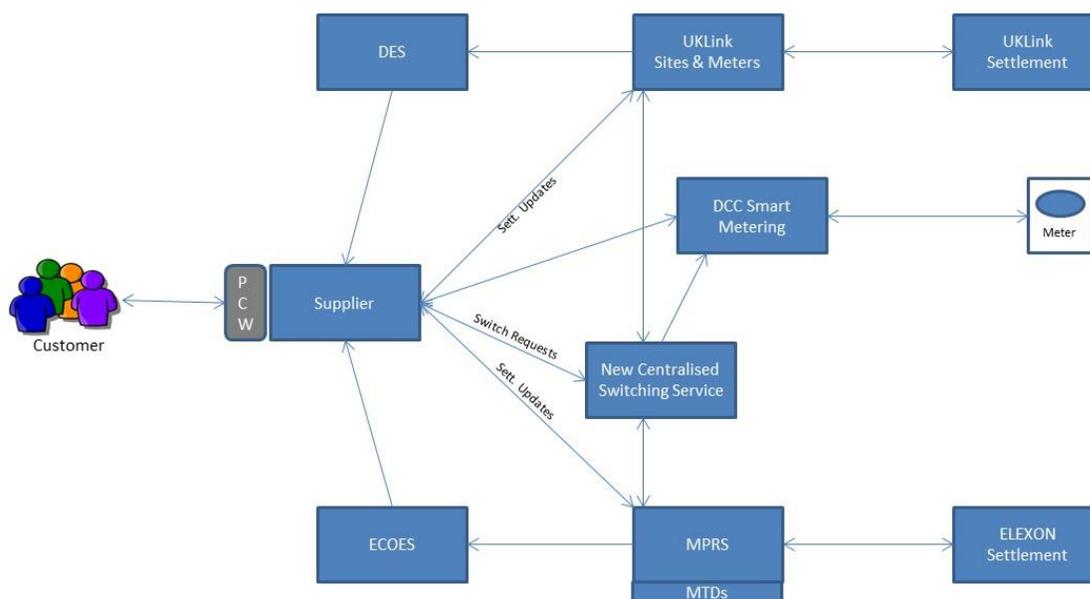
3.1. RP2a involves implementing a new CSS, managed by DCC. The CSS would perform switching functions that are currently performed by MPRS (for electricity) and UK Link (for gas). Both legacy systems (ie MPRS and UK Link) perform a broad set of functions and would continue in operation to support processes related to settlement, network charging and meter asset management. However, the switching functionality included in MPRS and UK Link would stop. Under RP2a, ECOES and DES¹⁵ would be retained to provide enquiry and Application Programming Interface

¹⁵ Xoserve and Gemserv have signalled that they are working together to evaluate the potential to re-

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(API) access to meter point data that would be mastered in CSS, MPRS, UK Link or DCC's smart metering inventory. The systems architecture required to support RP2a is shown at Figure 6.

Figure 6: RP2a, Solution architecture with new CSS¹⁶



3.2. Under RP2a, CSS would be developed to support the following features:

- a. The switching process would be managed by suppliers. In gas, this represents a change from the current arrangements which are shipper-led. All switching interactions with CSS would be undertaken by suppliers.
- b. Suppliers would submit switch requests to CSS for validation and testing for objections. Immediately after the request had been validated, the losing supplier would be invited to object. If they did not object by the end of the 'compressed window' (one working day for domestic customers, two for non-domestic), relevant industry parties would be notified that the switch will take place on the specified date. If an objection is raised and the gaining supplier and consumer still wished to proceed with the switch, the reason for the objection would need to be resolved and the gaining supplier would submit a new

develop ECOES and DES to provide a harmonised enquiry service. Pending a formal decision to proceed with this investment we will continue to refer to ECOES and DES as providing the enquiry services.

¹⁶ Price Comparison Websites (PCW) are shown in grey to highlight that use of PCWs by consumers or suppliers is optional: consumers may choose to interact directly with a supplier.

switch request. Within CSS, the length of the objections window would be parameterised, allowing the minimum switch time to be adjusted without need for modifications to CSS (although changes may be required to suppliers' systems). This means the central systems can support instantaneous objections and same-day switching without needing further investment.

- c. Switch requests would be accepted at any time of day and up to 28 calendar days ahead of the chosen switch date. A parameterised standstill period (up to 10 calendar days) would be set to mitigate data integrity risks that might arise from multiple switches in quick succession. The data integrity risks differ between traditional and smart meters (in the case of smart meters, configuration data can be retrieved remotely without data exchanges between parties) so separate standstill periods could be applied. We expect that the standstill periods would be reduced over time and – at least for smart meters – be reduced to zero within the medium term.
- d. CSS would record a premises-served address (referred to as a Retail Energy Location (REL) to allow for street cabinets and other meter points which do not have a postal address), linked to a standard GB address list. DCC would be obliged to establish data stewardship activities (eg applying updates made to the standard GB address list and requiring network operators to update plot addresses). This would reduce the number of instances where a switch fails because the customer cannot identify their address from the list presented to them.
- e. Where requested, dual fuel (and other multi-switches) would be executed on the same date using a one-fail-all-fail option.
- f. For each meter point, only one valid switch request may exist at any time. The supplier submitting a switch request may withdraw it prior to switch execution gate closure. If the switch has been executed and the suppliers involved have agreed it was an erroneous switch (using established procedures), CSS would process a switch request to repatriate the meter point to the supplier with which the consumer has a contract.
- g. We are considering whether RP2a should include an annulment capability which the losing supplier can use in exceptional circumstances to block a switch. This feature could be of value in avoiding erroneous switches, and has been included given the additional time available in RP2a between submission and execution of a switch request. Annulment would only be permitted where a consumer notifies their supplier that they have not entered into a contract with a new supplier and that, if not prevented, the switch would become erroneous. This feature, coupled with the withdrawal

facility, should ensure that suppliers have the necessary tools to correct errors promptly and efficiently. However, we are concerned about the potential for such a feature to be misused and are seeking evidence through this consultation on whether there is a strong case to include this functionality because of the misuse risk. Please let us know in your consultation response.

- h. Agent IDs would be maintained by the legacy MPRS and UK Link systems. Shipper ID would be mastered by CSS. When a switch is processed, the incumbent agents would be notified by the CSS but these notices would not constitute a de-appointment instruction.
- i. Consumer type (domestic or non-domestic) would be included in the switch request, recorded in CSS and made available via ECOES/DES. This would assist suppliers and PCWs to determine the tariff to be offered, would assist in verifying a MPAN or MPRN (MPxN), and would determine which objection parameters should be applied.
- j. CSS would provide information to DCC for access control of smart meters. This would allow service requests to be generated in advance and activated at midnight on switch date. To ensure that a smart meter could not become unmanageable as a result of a communications failure, DCC's systems would need to be modified such that no configuration commands (including the change of security credentials) would be transferred to the meter prior to gate closure. The new information flow from CSS to DCC would replace the Registration Data Provider (RDP) flows currently generated from MPRS and UK Link.
- k. Where a smart meter is installed, the switch read would be taken from the daily read log recorded at midnight on the switch date. This would be the meter read used when calculating closing and opening bills, and for settlement. For other meter types, the current arrangements for obtaining a switch read would endure.
- l. CSS would provide updates to ECOES and DES so that switching data is available for industry enquiry purposes. For RP2a, CSS would pass information to ECOES and DES relating to all switch requests that have been submitted. CSS would also pass the REL address to ECOES and DES (the meter point address mastered by MPRS / UK Link would also be accessible for enquiry). Agent IDs would be passed to ECOES and DES from MPRS / UK eg Link (not from CSS).

Objections

3.3. The most significant difference between RP2 and RP3 on the one hand, and RP2a on the other, is the approach adopted for objections testing. RP2 and RP3 include the 'instant reactive' model as its baseline as this would enable switch requests to be validated and tested for objections while the consumer was at the point of sale (eg a PCW website or a supplier's call centre). By contrast, recognising the high costs associated with 'instant reactive', RP2a employs the 'compressed window' model. Initially the length of the objections window under RP2a would be one working day for domestic consumers and two working day for non-domestic consumers. This would allow a domestic switch to be executed at midnight at the end of the working day following that on which the consumer contracted with a new supplier (with one additional working day for non-domestics).

3.4. Defining the objections window for RP2a as a number of working days provides flexibility for individual suppliers to determine their hours of operation. As a losing supplier, they would not be required to respond to objections out of working hours. But as a gaining supplier, they would be free to decide their sales hours (eg to operate outbound call centres 08:00 to 20:00 all days of the week and allow online sign-up using their chosen PCWs at any time – 24/7).

3.5. During the lifetime of the new CSS, requirements may emerge for accelerated switching. This could be achieved by adjusting the objections window (eg to change from working to calendar days) or shifting to the instant reactive objections model. CSS would therefore be designed such that the choice of the objections testing model and the length of the objections window are parameterised. We recognise that suppliers' systems may not support the full range of options that CSS would support so any changes to the objections window would be subject to a separate consultation.

3.6. In addition to considering the length of the objections window under RP2a, we have also re-examined sub-issues relating to CoO and avoiding erroneous switches¹⁷. In general, our goal is that switching should be led by the gaining supplier and the losing supplier should not be able to frustrate the consumer's wish to move to another supplier without valid reason. However following this approach in an overly rigid way could result in undesirable outcomes, for example:

- a. Erroneous switches are confusing, frustrating and can be distressing for consumers. They also have high administrative costs for suppliers. The incidence of such errors might be reduced through inclusion of the annulment feature (as described at 3.2.(g)), allowing the losing supplier to react to a consumer instruction to block a switch where no valid contract exists.

¹⁷ These issues are discussed in detail in the policy update paper at https://www.ofgem.gov.uk/system/files/docs/2017/09/policy_update_objections.pdf

- b. Inappropriate use of the CoO indicator by the gaining supplier could allow a consumer to avoid payments (eg exit fees or debt repayments) due to the losing supplier. Gaining suppliers may be deterred from such behaviour if the losing supplier always has the right to object, even where the CoO indicator has been set.

3.7. Including annulment and allowing the losing supplier to object where the CoO indicator was set would need to be backed by a strong performance assurance regime. This might include regular and transparent reporting on the use of these features, analysed by supplier, and imposing sanctions against suppliers who had used them invalidly.

3.8. We welcome your views on whether we should include an annulment function and to allow losing suppliers to object even where the CoO indicator had been set. Equally we encourage respondents to provide evidence on the extent to which these features may be employed and on regulatory arrangements that could mitigate misuse.

Agent appointments

3.9. A further change introduced since the SOC was published relates to agent appointments. In the SOC we proposed that agents whose lifecycle started and ended with a switch (ie MOP/MAM, Data Collector (DC), Data Aggregator (DA)) would be mastered in CSS, while agents whose lifecycle was aligned with the life of an asset (ie MAP) would be managed in MPRS (for electricity) and UK Link (for gas). We also proposed that a new agent type (meter communications provider (MCP)) should be introduced.

3.10. Feedback from suppliers and agents has indicated that managing agent appointments through both CSS and legacy systems would be confusing: it could lead to additional expenditure and, worryingly, lead to a deterioration in data quality. In RP2a, as well as for RP2 and RP3, we have proposed that agent IDs are all mastered in the legacy systems (MPRS and UK Link) albeit loss notifications would be issued by CSS to provide losing agents with early visibility of an impending switch. We have been unable to identify sufficient benefit to justify the capture of MCP as an agent type and have dropped this feature from all reform packages.

Changes to existing systems and processes

3.11. The existing systems would be enhanced to support the following features:

- a. UK Link and MPRS would provide details of newly-created or withdrawn meter points to CSS, plus any changes to meter point status that impact the switching process. CSS would notify UK Link and MPRS of switches so they can support settlement and network charging.

- b. The gas confirmation window would be reduced to one working day (it is currently two). Shippers would be required to provide nominations for daily metered sites by 13:00 on D-1 and by 14:00 the Gemini system would provide information to non-daily metered shippers on the volume of gas their sites are expected to offtake. Shippers may adjust their trading positions at any time, and for domestic sites we expect that gas confirmation would be performed in parallel to objections testing. In the case of large sites, shippers/suppliers may wish to manage the contracting process such that an advance registration date is set, allowing the shipper to adjust its trading position once the switch has been confirmed.
- c. The MAM ID code in gas would be replaced by a Meter Equipment Manager¹⁸ (MEM ID) and a new field would be created to capture the MAP ID. Suppliers would be responsible for maintaining the MEM and MAP IDs but may delegate the maintenance of MAP ID to their MEM.
- d. The nomination process in gas for Large Supply Points (LSPs) would be modified. Shippers would still be able to access transportation prices for specified MPRNs from Xoserve but the requirement to hold a valid offer would be removed from the critical path for switching.

3.12. In addition to the changes required under RP2a to their systems, industry parties would also need to make changes to their commercial and business processes, including:

- a. **Cooling off:** in addition to fulfilling their statutory obligations, suppliers would need to meet two new regulatory obligations. Firstly, they would be required to offer terms equivalent to, or no worse than, those the consumer would have enjoyed, had they not switched, to any consumer who makes a switch, cools off and decides to return to their former supplier (Supplier A). Secondly, when a consumer cools off without immediately switching to a new supplier, Supplier B would be supplying the consumer under a deemed contract. It would be required to continue to supply energy at the price in force prior to cooling off, for a minimum period of 30 calendar days. After this period of grace has expired, if the consumer has not switched, Supplier B would be permitted to apply an alternative tariff in line with the existing licence conditions relating to deemed contract charges.
- b. **CES:** as for RP2 and RP3, the CSS operator, would be required to provide a national helpline and website for consumers to find out the identity of their current supplier and/or their MPxN. Second-line support (for example to resolve complex plot addresses) would be

¹⁸ MEM is the harmonised term previously referred to in electricity as a MOP – Meter Operator

provided by the network operators (ie the current operators of this service who would need to downsize their existing services).

- c. **Commercial relationships with PCWs:** we expect suppliers to review the processes they outsource to PCWs to ensure that they can support faster and more reliable switching. For RP2a, the need to adjust existing practices may be less pressing than for RP2 (where PCWs could have been in the position of informing consumers of an objection because of the instant reactive objections process) but we would nevertheless, as a minimum, expect that suppliers would work with PCWs to use the REL as the address to be used when looking up an MPxN. Suppliers may choose to inform the consumer (potentially via their PCW) that a switch request has been successfully validated and, subject to an objection being raised, would proceed on the switch date specified.
- d. **Changes to settlement parameters or metering coincident with a switch:** CSS would process switch transactions while other changes (for example to change the settlement basis from non-half hourly (NHH) to half hourly (HH)) would continue to be processed through UK Link and MPRS. Suppliers would need to ensure that these updates are scheduled such that the integrity of settlement and network charging is maintained. This would be assisted by the fact that settlement runs are scheduled several days after the settlement day, allowing errors to be corrected before they have a financial impact.

3.13. Further detail on RP2a, a comparison of all the reform packages and an analysis of the impacts of RP2a on different groups of industry stakeholders are in the subsidiary documents "Reform Package Spreadsheet" and "Reform Package 2a Stakeholder Requirements".¹⁹

3.14. Annex 5 contains a draft data mastery model showing the data service that would be responsible for mastering each data object. Clear data mastery should help improve data quality and the reliability of switching. This data model will be refined during the Detailed Level Specification phase and finalised during the Design, Build and Test (DBT) phase.

3.15. As the programme proceeds, we will also be defining reporting and other monitoring requirements to support performance assurance. This could include central reporting of market statistics, including those that currently rely on supplier submissions and reporting of exception cases such as use of the annulment feature,

¹⁹ https://www.ofgem.gov.uk/system/files/docs/2017/09/reform_package_spreadsheet.xlsx

https://www.ofgem.gov.uk/system/files/docs/2017/09/reform_package_2a_stakeholder_requirements.xlsx



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objections raised where the change of occupancy indicator had been set and erroneous switches. These reports may include analyses by supplier.

4. Communications network

Chapter summary

This chapter sets out, and seeks views on, our view that the communications network requirements to deliver the new switching arrangements should be procured by DCC through open competition.

Question Box

Question 5: Do you agree with our proposal to require DCC to competitively procure the communications network capability required to deliver the new switching arrangements?

Communications network

4.1. The new switching arrangements require information to be transmitted between the CSS and market participants, including MPRS, UK Link, DCC, in its role as smart metering operator, and energy suppliers. There are already a number of different dedicated networks in place to provide communications between energy industry participants. These dedicated networks have different characteristics and serve different combinations of market participants. Ofgem has a presumption in favour of competition and we would expect capability required as part of the new switching arrangements to be procured through open competition unless there are good reasons not to.

4.2. Ofgem commissioned Mason Advisory to consider the options for providing the network solution for the new arrangements, to understand whether there was a case for specifying use of any of the existing networks instead of asking DCC to procure the required network capability. Mason Advisory noted that they were unable to make definitive recommendations as the full design specification was not yet known, in particular in relation to the security requirements, but they were able to make a number of recommendations. Generally they noted that overall responsibility for CSS delivery performance should be retained under the control of a single entity, ie DCC. They noted that this would not preclude the use of third-party networks if suitable service levels are put in place and contracts are suitably established in a 'back-to-back' arrangement to ensure third-party suppliers deliver the required service levels. More specifically they recommended that:

- we should "allow DCC to complete the specification for CSS/MIS, with particular emphasis for the new network on data volumes forecast between the various participants, network availability, and information security requirements
- there are identifiable cost savings if an existing energy sector network is utilised compared with a new build. The current operators of these

networks should therefore be invited to make proposals for carrying the CSS[...] traffic once the requirements are known. However, the appropriate use of secure internet-based connectivity would deliver further cost savings and offer greater flexibility to users in accessing systems compared with a using a dedicated network, if this approach meets the technical requirements specified for CSS. It is therefore recommended that both options be considered once the detailed requirements are known

- the preferred governance model can be developed based on the criteria identified. It is recommended that either a vendor-managed or possibly outsourced solution should be adopted, depending on whether the network is sourced directly or overlaid on an existing service.”

4.3. The Mason Advisory report considered the data transfer network (DTN) provided by ElectraLink, IX, the Xoserve network provided by Vodafone, and DCC’s Gamma network. They also considered the potential for a new dedicated network and the use of secure internet links, as is currently the case for most industry connections to ECOES. Each of these options would have potential advantages and disadvantages and the Mason Advisory report did not rule any of them out. However, none of the individual options would self-evidently provide superior value compared to the merits of running a competition to determine the best solution.

4.4. We note that the DTN, which is provided by ElectraLink on behalf of relevant industry parties, is competitively procured by ElectraLink and is due to be re-procured in 2019/20. It is possible that there might be benefits from including the communications requirements for the new switching arrangements within the scope of the DTN regulated service when it is re-procured. Those benefits might include lower delivery risk and cost than a separate procurement as there is already an agreement and governance structure in place that could be adapted and nearly all market participants (including most gas suppliers) have an existing DTN link. However, separating procurement of the communications requirements from other aspects of the new switching arrangements could equally result in greater complexity and delivery risk.

4.5. We think there are more disadvantages than advantages to moving away from the established programme structure, or breaking up the responsibility for procurement of the capability required to deliver the new switching arrangements. We therefore propose to require DCC to competitively procure the communications network capability required to deliver the new switching arrangements alongside their procurement of the CSS and any other capability requirements. We hope that providers of existing networks will put forward their solutions to be considered through this process. We welcome views from stakeholders on this position.

4.6. The evaluation of options within a DCC competitive procurement may not be straightforward. The evaluation of existing systems will be complex and, like the evaluation of potential options for the provision of the CSS itself, will need to be able to take full industry value into account. Ofgem has a role in agreeing the evaluation criteria for the procurement with DCC. We will be thinking about how the evaluation criteria for communications network capability should be established to take into

account all relevant factors. DCC will be responsible for evaluating the bid responses against the agreed criteria and awarding contracts.

4.7. We also note that some existing network operators might operate under regulatory or other governance regimes that make it difficult for them to bid into a standard commercial competition. At this point, we are not aware of any specific regulatory or governance issues that would need to be addressed in relation to existing network operators, but if stakeholders are aware of such issues then we would be interested to understand what they are.

5. Switch speed and regulatory requirements

Chapter summary

This chapter sets out our intention to deliver a switching system that will support next working day switching and that could be adapted with minimal cost to support same-day switching. Following a brief transitional period, we expect that suppliers should, as an industry standard, switch customers within one working day. It also describes our proposals to introduce a regulatory requirement, as a backstop, on suppliers to switch customers within five working days. We will consider in the future whether the maximum switch time should be tightened for all suppliers to offer next working day switching.

Question Box

Question 6: Do you agree with our proposal to have a three-month transition window (aiming to protect reliability) during which time suppliers have to meet additional requirements if switching in less than five working days? Please support your answer with evidence.

Question 7: Do you agree with our proposal to change the requirement on speed of switching to require switches to be completed within five working days of the contract being entered into (subject to appropriate exceptions)? Please support your answer with evidence.

Switch speed

5.1. Our switching reforms will support consumer engagement in the energy market and increase competition and innovation. We are aiming to create a market environment where consumers are empowered to choose when they want their switch to take place and where suppliers can compete to offer as reliable and fast switching as their systems and processes are able to support.

5.2. Our proposed reform package (RP2a – reliable next day switching) will enable customers to choose to switch at the end of the next working day, but also to choose a different date for their switch to take effect if that is their preference.

5.3. It is important we deliver new systems that are capable of operating as fast as may be required during the lifetime of the systems, given the level of change in the energy sector. We are proposing a CSS that, operating within the existing environment of other pan-industry systems, would be capable of switching customers at midnight following the submission of a switch request ('same-day switching').

5.4. We will review the arrangements in the light of practical application. That would include whether to introduce same-day switching (ie moving to Reform Package 2) and consider whether there is market demand for moving to same-day switching and the costs of doing so. The scope and timing of that assessment are not yet confirmed. We would expect it to consider more generally the impact of the new switching arrangements, the operation of the retail market, and to look at how to ensure that consumers are reaping the full benefits of the new systems. In practice, this means reviewing the arrangements for objections (discussed below from paragraph 5.6).

Regulatory requirements

5.5. We will need to amend the existing regulatory requirements to ensure all suppliers deliver a minimum acceptable standard for consumers in terms of speed and reliability, given the new capabilities of the new systems.

Objections

5.6. Ofgem has decided allow suppliers to continue to object to a switch where a domestic customer has an outstanding debt which, following a written demand, has been outstanding for more than 28 days. Suppliers may also object to a switch of a non-domestic customer for any reasons agreed in the contract. These typically relate to termination notice, switching before the end of a fixed term and debt. In practice, maintaining the right of the losing supplier to object to a customer switching has a key impact on switching speed, because no switch can take place before the objections window closes.

5.7. Currently energy suppliers have a window, of two to seven working days in gas and five working days in electricity, in which to register an objection to a customer transfer. In the SOC we proposed to remove the objections window altogether and replace it with an instant reactive objections process (in RP2 and RP3). Having considered the costs and benefits of that compared with a compressed window (as in RP2a), we have decided to change this so suppliers have a one working day window to object for domestic customers and a two working day window to object for non-domestic customers²⁰. If the losing supplier does not register an objection within the objection window, the CSS will assume that the switch can proceed. This means that where a supplier is unable to communicate with the CSS (unless this is due to a CSS failure) within the timescales allowed, it will not be possible for that supplier to register an objection.

5.8. If objections remain a long-term feature of the market, our goal is for the process to operate as quickly as possible, given the potential for any delays to create hassle for consumers, enabling “same-day” switching. We are proposing a central system capable of handling instantaneous objections as future-proofing. If objections do not remain a feature of the market, then the central systems would enable the

²⁰ The two working day window for non-domestic objections would allow suppliers sufficient time to contact a customer to attempt to address any issues that might otherwise give rise to an objection.

market to move immediately to support “same-day” switching. DCC has estimated that the additional cost of including this capability from the start is around 0.5% of the estimated cost of developing the CSS. We believe that including this enhanced functionality during the initial build of CSS provides better value for money than incorporating the change at a future point in time which is likely to be a more costly option.

Maximum switching times

5.9. Suppliers are currently required, by licence obligation, to complete a switch within 21 days of the ‘relevant date’. The relevant date is the date on which the contract is entered into, or, where there is a cooling-off period, the date on which the cooling-off period ends, or any date within the cooling-off period on which the customer has agreed that the switch should occur. There are a number of exceptions to this requirement, including where the customer has requested a later date, where the customer had changed their mind, where an objection has been registered and where the supplier has been unable to obtain the information needed to complete the switch.

5.10. We propose to change this regulatory requirement to introduce a new maximum switching time. Suppliers will be required to complete a switch within five working days of the date on which the contract is entered into. We would remove the concept of the ‘relevant date’ and the cooling-off period would no longer be relevant to the timing of the switch. As now, the exceptions described above would apply. We will consider whether any of those exceptions require amendment, and whether any new exceptions are required, before the new switching arrangements come into force.

5.11. This will mean that all suppliers would be required to be able to complete a switch within five working days. A number of suppliers have argued that some customers do not want to switch supplier quickly and would prefer to wait, for example until the cooling off period has expired. Other customers may also want to set a date for the switch, for example because they are moving house or because they want to schedule the switch for the end of a previous contract. Customer choice is important, and we therefore do not intend to prevent suppliers from responding to customer demand if they request a switch longer than the five-day regulatory maximum. A supplier will be free to agree any switch date with a customer that the customer wants, taking account of the timeframes set out in the objection window. However, we do expect suppliers to change their processes and practices and switch customers within five working days, and preferably next working day, as a default.

5.12. We will consider in the future whether five working days remains an appropriate regulatory backstop, or whether the maximum switch time should be tightened for all suppliers to offer next-day switching. We will make a decision on this in future, but we expect that we would tighten the maximum switching time if the market as a whole does not move to offer next working day switching to consumers. Any move to tighten the regulatory requirements would be subject to a separate consultation.

Short-term transitional reliability protections

5.13. Most of the issues that currently lead to delayed or failed switches, or to erroneous switches, are caused by the poor quality of the meter point and premises address data currently held in industry systems.

5.14. Chapter 6 shows the steps that will be taken to ensure better data quality under the new arrangements and how effective we think they will be. That section also explains that Ofgem attaches importance to ensuring that there is an improvement in the reliability of the switching process and, in particular, to ensuring that faster switching does not lead to a significant increase in the level of erroneous switches.

5.15. We are confident that the proposals in this document, alongside industry's own efforts to reduce the number of erroneous switches, will deliver the reliability benefits that we anticipate. However we recognise that it will be difficult to test the impact of these measures accurately until the new arrangements are operational. Therefore we are proposing a short transitional period (expected to be three months) while industry familiarises itself with the new next working day switching arrangements and the impact of the changes to the data model can be tested.

5.16. During this transitional period, we expect suppliers to allow five working days as standard for a switch, including the objections window described above (ie a request submitted on a Monday would take effect at midnight on Friday night /Saturday morning). We expect all industry parties to operate as they would for next working day switching, except that the majority of suppliers would set the switch date for midnight at the end of the fifth working day.

5.17. This will allow for data to be validated and corrected, and prevent erroneous switches where customers or suppliers become aware of them. For example it would allow more time for customers to receive a 'sorry to see you go' message from their losing supplier and a welcome message from their new supplier, and respond if they have not requested a change of supplier. It would also give the gaining supplier time to withdraw the switch before it is executed, if appropriate.

5.18. Some suppliers have indicated that they would want to offer their customers a switch that is faster than five working days, including a next working day switch, as soon as the industry systems can support it. To support competition and innovation, we support this faster switching but only where it can be done without an unacceptable risk to customers.

5.19. To ensure that switching faster than the five working day industry standard during the transitional phase does not harm consumers, we will consider, before the new switching arrangements are implemented, what additional obligations or penalties might be imposed on suppliers if they switch more quickly than the industry standard switch time. Possible additional obligations could include:



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- positive verification of the MPxN (eg through a Customer Identification Number (CIN) test²¹, or provision of the MPxN or photograph of the meter by the customer)
- limitation to smart meters, where immediate verifiable meter readings are available
- independent accreditation of the supplier in respect of relevant processes
- a requirement that the supplier meet all costs (including those of the customer and other market participants) associated with a faster than five working days switch that goes wrong.

5.20. During the transitional period, we will monitor the effectiveness of the new arrangements at improving reliability, with a particular focus on the proportion of switches that complete registration without any queries, the number of erroneous switches that are prevented after the next working day but before the switch happens, and the erroneous switches that occur. We would set objective measures for these that would demonstrate that next-day switching as a standard, under the new arrangements, would deliver appropriate reliability. Once those objective measures are met, we would expect all suppliers to move to deliver next working day switching as standard for domestic customers (ie a switch registered on a Monday would take effect at midnight on Tuesday night/Wednesday morning). At this point any transitional requirements on suppliers switching customers faster than within five working days would fall away.

5.21. We will monitor how suppliers perform in switching speed and reliability. We expect to publish information on this so that consumers can identify whether their chosen supplier is meeting the industry standard of next working day switching. If the market does not make sufficient progress, we will consider whether to use the new maximum switching time requirements to give regulatory backing to the industry standard.

5.22. We would welcome any comments on this approach in response to this consultation, but we will consider these issues in more detail in due course and consult on concrete proposals in advance of the new switching arrangements coming into force.

²¹ A CIN test allows a supplier to send a code to a smart meter that the consumer can see on their in-home display (IHD), confirming that they have identified the correct meter point.

6. Reliability

Chapter summary

This chapter sets out the measures we will put in place in order to make switching more reliable. This includes improvements to data before the CSS goes live, the benefits associated with putting in place the CSS, including the new address database and matching of meters to addresses and ongoing data governance as well as stewardship requirements.

6.1. Failed, delayed and erroneous switches undermine confidence in switching and reaffirm consumers' impression that switching is "too much hassle." They also generate inefficiency in the switching process for consumers and industry parties involved. Making switching more reliable is therefore a major objective in its own right, alongside making it faster. Some consumers also feel uncertain that their switch will work as two to three weeks pass. A shorter process in and of itself would reduce those worries about switching and reduce the perception of complexity and hassle in the process.

6.2. There is also a concern that making switching faster could make it less reliable, as there will be less time to catch and prevent faulty switches. We estimate that there are currently around 130,000 erroneously registered switch requests each year that are identified during the switching window and withdrawn before they are executed. This is around double the number of erroneous switches that we estimate are actually executed each year. We are therefore looking at measures to mitigate against losing reliability in the faster switching processes, before they are introduced. This is described above in Chapter 5.

6.3. In RP2a, we are addressing unreliability in the switching process by improving data, systems and processes, not least through the introduction of a dual fuel centralised registration service. Ahead of the introduction of new systems and processes, we are working to create the right environment into which to introduce faster switching. We are also putting in place measures to maintain and increase reliability after its introduction.

6.4. As part of our stakeholder engagement during the Blueprint phase, we identified that issues with customer address data, and to a lesser extent meter technical data, were the main causes of delayed or failed switches. A survey of supplier data indicated that:

- approximately 82% of switching failures, delays and erroneous switches (ETs) across fuels are related to data quality
- of these, 81% relate to problems with meter point-address alignment and the quality of overall address data, and a further 14% of failed or delayed switches were caused by poor meter technical information.

6.5. We have therefore focused on ensuring that meter point data will be accurately mapped across to addresses and that all relevant parties will have access to this up-to-date accurate information.

The CSS and the address database

6.6. Address data is commonly used as a proxy in order to identify the meter point when switching a customer's supply. If the address is incorrectly recorded and cannot be used to locate a meter point, the switch is therefore likely to fail, be delayed or become erroneous.

6.7. Common problems related to address data include:

- poor quality of addresses (where a property address will be incorrectly recorded in industry data due to human error or some other factor)
- ambiguous addresses (where an address may have multiple different names as no single address has been recorded in local authority data, for instance in Scottish tenement flats)
- developers' plot addresses being retained for new-build properties in industry data when a postal address is available
- incomplete addresses in industry data
- multiple MPAN and MPRNs inaccurately assigned to single properties
- unusually named properties (including vanity addresses) not clearly mapped to a recognised postal address, and
- inconsistencies between the address data used in gas and electricity.

6.8. Under RP2a, the functionality that currently exists within separate gas and electricity switching services will be replaced by a CSS. It is our intention that this will contain a single address database for both gas and electricity.

6.9. To improve address data, an industry standard, externally sourced GB address list will be procured. This will be used to form a database of premises addresses within the CSS. Our stakeholder engagement has indicated that it may be possible to procure an address database with a single or group licence, which would allow suppliers and other market participants to match their own data with that held in the central database.

6.10. MPANs and MPRNs will be linked to addresses provided by the procured database, meaning that each MPAN and MPRN should be linked to a complete postal address. DNOs and GTs would be required to report new meter points to DCC to ensure that this premises database remains up-to-date. The database would then link existing (MPRS & UK Link) address data, MPANs and MPRNs following an initial data cleanse and migration. Initial cleanse would be done by a mix of algorithmic processes and manually verifying existing industry data.

6.11. The premises address database, with links to MPANs and MPRNs, will be mastered in the CSS and stewarded by the CSS provider. This will require the CSS provider to ensure that this matching is correct and to update new meter point and

address data promptly, to improve the stock of addresses wherever possible. The CSS provider will be required to ensure proactively that address and meter point matches are validated and corrected where wrong, and that plot addresses are promptly replaced by postal addresses. There will also be requirements on other market participants to support this work.

Benefits of a dual fuel system and address database

6.12. The creation of a single premises address data in a single location in the CSS will eliminate many of the issues with address data identified above, by ensuring that all market participants are able to access the highest available quality of data from the same resource. It also establishes a centrally held, comprehensive set of links between gas and electricity meter points for the first time in industry data. Establishing this link against a single high-quality address reference will reduce one of the elements that causes delays and problems in the switching process, both in terms of reducing the time taken to locate meter numbers and the likelihood of mismatches when locating a gas and electricity meter for the same location. It will also help reassure parties involved in a switch that they are switching the right customer.

6.13. Having one master address list for gas and electricity makes it easier to coordinate managing reliable address data, as there will be one central CSS address database for gas and electricity, rather than separate gas and electricity address lists. For example, with updates from plot-to-postal addresses, if there is an alert of a change from a plot-to-postal address in gas, then it will be made in CSS – which is the master source of addresses, which will help to ensure consistency across gas and electricity systems.

6.14. This database will be reproduced in the industry enquiry services ECOES and DES, meaning that PCWs will be able to access more up-to-date and reliable data, once they have access to the databases following the implementation of a Competition and Markets Authority remedy to that effect. This will allow them to check and confirm facts about the switch at the point of sale, even before the switching process properly begins.

6.15. The dual fuel nature of the CSS allows for other processes that will improve reliability for consumers. For example the 'One Fail, All Fail' policy puts a consumer who requests a dual fuel switch in charge of whether the switch for one fuel goes ahead if the other should fail for whatever reason. This removes hassle for consumers and suppliers.

Improving data quality now in preparation for the introduction of new systems

6.16. There are certain improvements to industry data that can be carried out ahead of the introduction of the CSS. Below are other common data quality issues which can result in delayed, aborted, failed or unrequested switches as well as general hassle for the consumer:

- **Poor meter technical data:** where incorrect meter technical data is held, switches are usually still completed as the customer and supplier will be unaware of that incorrect data. However, there are then various problems which can occur after the switch:
 - The consumer may be on an inappropriate contract or tariff which their meter does not support.
 - The consumer's billing from the new supplier will be incorrect as the supplier is not relying on correctly interpreted meter readings.
 - Time and effort must be invested by both the consumer and supplier to resolve these issues, and it can take a great deal of investigation from the supplier to correct the meter technical data. These problems affect about 4% of delayed or abandoned switches, including those where a consumer's contract has to be amended.
- **Plot addresses in industry data:** When a property developer (for example, house builder) buys land, the property developer will assign plot addresses. Each plot address will correspond to a house which is yet to be built. This plot address is given to the property before it is given a postal address. It is the local authority's responsibility to assign postal addresses to the property. The frequency with which local authorities perform this task can vary widely. However, the allocation of meter numbers by the distribution company and initial supply of energy to the address could happen before a postal address is assigned. This could mean that in the distribution company's address system, the meter numbers is matched against a plot address and won't be identified when a consumer requests a switch. Plot addresses currently represent around 0.2% of gas meter points and 0.8% of electricity meter points.
- **Crossed meters:** At present, property developers request meter numbers from DNOs and GTs to connect gas and electricity supply to a new property. A list of meter numbers may be issued to a development before any individual premises is even built. Developers' plans can change, and therefore meter numbers may be recorded as being issued to a different property to that originally intended.

6.17. With industry, we are exploring ways of dealing with these issues by potentially increasing efforts allocated to existing activities, managing meter technical details and plot addresses, and creating obligations on industry, for example to reconcile industry-held meter technical details between parties or to update plot addresses to postal addresses more proactively. We expect this work to result in proposed changes to relevant codes during 2018.

Other developments to enhance reliability

6.18. We are working with the industry-led (ETWG) and challenging it to implement strong improvements to reduce numbers of erroneous switches. From our involvement so far, we are optimistic that improvements such as industry-wide erroneous transfer reporting solution and performance assurance scheme will drive down erroneous transfer rates before we introduce faster switching. However, we remain concerned that even if all suppliers were to achieve the current best practice levels of erroneous transfers that would still not represent good customer experience. We will continue to consider, and to press industry to look at, options for compensating consumers who are subject to an erroneous transfer, thus both addressing the consumer detriment and providing an incentive on all suppliers to reduce levels even further.

6.19. In the Switching Programme SOC we set out proposals for a MIS as an element of RP3. The MIS would provide real-time access (via API) to all meter point data maintained by the CSS, UK Link (excluding meter readings), MPRS and the DCC smart meter inventory. The currency of data from the CSS and the smart meter inventory would be near real-time and data from UK Link and MPRS would be as at the last update (at least daily). This would ensure suppliers and PCWs have the most current data available when they engage with consumers in sales and switching activities.

6.20. We expected that it would bring additional benefits for the reliability of switching as more industry switching data would be accessible via a single source, enabling easier matching and reconciliation. It would also facilitate the procedures for maintaining and stewarding meter point data, thus improving its accuracy and reliability. In the Impact Assessment we set out why we have decided that we should not take forward RP3 with a MIS.

6.21. Xoserve and Gemserv have recently published a statement of intent to establish a MIS through an industry-led initiative. They are also committed to work with Ofgem to ensure that this service is in line with the data model used in the future switching arrangements. This industry-led MIS is expected to deliver the same benefits as was assumed in the SOC.

Maintaining better reliability in the future

6.22. Increasing reliability through one-off data cleansing and the creation of new systems and processes, required for go-live, will improve reliability of switching. In order to maintain high-levels of data quality and reliability in switching into the future, new arrangements will be put in place to ensure that data continues to be cleansed and updated. The data model that we have developed sets out the data elements that underpin the end-to-end switching arrangements. It describes where data is governed, who is responsible for the ongoing accuracy and integrity of the data (which will be backed up by regulatory requirements), and who is entitled to use it. In reflecting the new arrangements, the data model is intrinsically linked to the process models and operational choreography that supports the inception of a new CSS and its interface with other systems, and interactions between other systems.

6.23. We will ensure that this effort is made by:

- creating a clear industry-wide data model that provides the basis for
 - creating an ongoing data stewardship role alongside the management of the CSS.
 - creating industry-wide ongoing data governance and responsibility structures. (The data mastery model (see Appendix 5) sets out the roles played by each market participant in relation to each data item in the data model and, in particular, shows who will be responsible for mastering each data item and ensuring ongoing accuracy and integrity of that data).
- creating the ongoing regulatory obligations to reconcile meter technical data and to update plot addresses proactively.

7. Implementation

Chapter summary

This chapter describes how we will implement the package from end to end. It includes proposals for transition, testing, procuring services by DCC, and co-ordinating market participants in the DBT phase. Our detailed proposals will be developed alongside the finalised design.

7.1. The move to faster and more reliable switching by implementing RP2a would require changes to industry systems and processes, including building and testing the CSS. A number of parties will be responsible for, or will work towards, delivering or changing these through their own delivery programmes in the DBT phase. They will need to have a schedule of work, including a detailed plan for testing, in place in order to deliver these changes.

7.2. Involved parties will include:

- **Ofgem** - The regulator will retain sponsorship of the programme.
- **DCC** - DCC will procure the services and capability required to deliver reliable next-day switching. We set out in chapter 8 our intention to amend the DCC licence to give them responsibility for management of those contracts and for operation of the CSS.
- **A CES service provider**, who will build the consumer enquiries service.
- **Central service providers (operators of UK Link and MPRS, ECOES and DES, Data Service Provider)**. The services provided by these operators will continue to be integral to the end-to-end (E2E) solution. New interfaces will have to be created for these systems with the CSS, and interfaces between systems will be changed.
- **Market participants (such as suppliers, gas shippers, metering agents, GTs and DNOs)**. Efficiently delivering the entire E2E solution will depend on whether participants outside the CSS are prepared to help develop the new arrangements while continuing to service the existing switching requirements.
- **Code Bodies**. Implementation of the new switching arrangements will require some changes to enduring code requirements. Code bodies will therefore be crucial in ensuring the effective implementation of the E2E solution.

7.3. We have developed a strategy to implement the E2E solution to ensure that the programme's objectives are delivered on time.

Procurement

DCC's role

7.4. DCC's licence²² contains obligations to make all relevant preparations to procure a Centralised Registration Service (CRS) as part of a competitive tender²³. DCC's licence also requires it to contribute to the design of the new registration and switching arrangements, and identify requirements for the CRS.

7.5. The definition of the CRS in the licence is intentionally broad allowing for the design to be designated by the Authority based on the design baselines developed by the programme. Based on the programme's design work to date, in RP2a DCC would be responsible for procuring a new CSS and a potential new CES. DCC could also be responsible for procuring various services to support delivery of the new arrangements, such as central co-ordination and assurance functions.

7.6. DCC would lead on the procurement of the CSS and CES and would be responsible for evaluating potential service providers, awarding and negotiating any contracts.

7.7. DCC's current licence obligations apply until the point of contract award. We will be considering and consulting on DCC's role following procurement. We envisage formalising DCC's role through new obligations in DCC's licence. These obligations should be in place ahead of any contract negotiations or award. (See further paragraph 8.29. below.)

Governance

7.8. The obligations on DCC to make relevant preparations for procurement in its licence are high-level. Ofgem and DCC have therefore jointly developed a framework for DCC's role in procuring the CSS²⁴. This framework sets out the considerations for procurement we think are relevant for DCC to take into account in fulfilling its licence obligations, and explains how we expect DCC to work with us in the context of those obligations and the financial incentive regime we have proposed. We continue to work with DCC to develop the procurement plan that will set out how the Switching Programme procurement activity would be delivered in order to source the specified CSS solution. It will describe how the requirements will be formed into procurement projects to take to the external marketplace. This will be developed iteratively in line with the evolving E2E Design.

²² <https://epr.ofgem.gov.uk/Content/Documents/Smart%20DCC%20Limited%20-%20Smart%20Meter%20Communication%20Consolidated%20Licence%20Conditions%20-%20Current%20Version.pdf>

²³ <https://www.ofgem.gov.uk/publications-and-updates/decision-dccs-role-developing-centralised-registration-service>

²⁴ <https://www.ofgem.gov.uk/publications-and-updates/switching-programme-procurement-framework>

7.9. Each of the procurement projects described in the plan would require its own procurement approach and process. These will be developed following the plan, and described in the Sourcing Strategies. Tender packs for each procurement will outline the evaluation methodology that will be used in assessing potential bids. We want the evaluation methodology to reflect best value for the CSS and CES users ('whole industry best value' taking into consideration cost, benefits and risk to industry) as part of any assessment. This will be a significant challenge and will need to be set out fairly and transparently within the tender packs. We have thought about this as part of the Commercial workstream²⁵ and will continue to engage with industry through the Commercial Forum²⁶.

7.10. The current dates in the programme plan anticipate tender packs being released in August 2018 and contract award recommendation in February 2019. We envisage a re-baselined plan and updated DCC Business Case being published later in 2017. Incentives²⁷ are in place to hold DCC to account for promptly delivering quality tender pack(s) and the contract award recommendation report(s).

Transition approach

7.11. Transition from the existing switching arrangements to the new switching system will involve a number of complex processes, including:

- establishing new interfaces between operational components of the existing switching services (including suppliers) and the new CSS
- integrating operation of the CSS with entirely new service providers (such as the provider of an address database)
- removal of some interfaces between existing components, and
- start-up of the new CSS itself.

7.12. We have considered a number of approaches to transition in our Blueprint phase work. These are in two categories: a single go-live event transition with functional go-live occurring at the same time for all E2E participants and customers; or an approach where the new arrangements are phased in gradually, either by supplier group, geographical area or customer type.²⁸

7.13. In the SOC, we argued that to implement a phased transition would require some extent of dual running of existing and new switching services. This would

²⁵ The Commercial Workstream will develop proposals for how the CSS and potential CES will be charged for, funded and procured. The workstream covers price control and procurement activities.

²⁶ The Commercial Forum is made up of representatives from Ofgem, DCC, the industry, consumer representatives and other subject matter experts

²⁷ <https://www.ofgem.gov.uk/publications-and-updates/decision-margin-and-incentives-dccs-role-within-transitional-phase-switching-programme>

²⁸ A further means of phased delivery – by functional component, separating delivery of the CSS from an MIS, is our preferred approach in the case of RP3.

present significant additional cost of maintaining two systems simultaneously to all suppliers, would increase the risk to data quality and the technical complexity of implementation, and would potentially disadvantage some suppliers or consumers relative to others. For this reason, we continue to propose that go-live of the switching system should be managed as a single cross-industry go-live event, so that all suppliers and consumers will access the service as part of a single release. Although this single go-live event across industry may bring additional implementation risk, it remains the most realistic available option.

7.14. We propose to implement the development of interfaces between central systems and the changing of data flows between those systems in distinct stages. This approach will reduce implementation risk of the overall solution, while maintaining go-live for suppliers and consumers in a single event.

7.15. This will mean gradually introducing elements of the CSS and its interactivity with other key parts of system functionality (such as UK LINK, MPRS systems, ECOES and DES) during the DBT phase. This will allow for interfaces and systems components to be tested until we are confident that those interfaces are robust before the implementation process will move to the next stage.

7.16. Stages that will have to be planned include (among other tasks):

- capture and consolidation of data items eg MAP ID and related MPANs into UK Link and MPRS (requiring changes to MPRS and UK Link and associated changes made by shippers and suppliers)
- creation and testing of interfaces between the CSS and other parts of the end-to-end solution, including suppliers, gas shippers, UK Link and MPRS, information services such as ECOES and DES, and the Data Service Provider
- initial data migration from MPRS/UK Link into CSS (meter point and registration data)
- creation of an interface with the new premises address data service, population of retail premises address database, and cleansing of address data against this standard
- changes to aspects of the switching process which are integral to suppliers' ability to register and lose customers, such as the objections process
- launch of the CSS as the live registration service, concurrent with go-live of the full E2E solution.

7.17. A diagram showing a high-level example of how this approach might work in practice is in Appendix 4.

7.18. In addition to the staged introduction of the CSS, participants in the E2E solution will need to adapt their existing systems and processes (both technical and commercial). Examples include how participants communicate with customers in a faster switching environment, switching customer during the cooling off period,

appointing and de-appointing metering agents and managing issues such as objections, erroneous switches and billing.

7.19. To ensure that parties across the retail energy market can be co-ordinated in implementing the new switching approaches, we propose to introduce some binding obligations on these parties to cooperate with programme implementation. This is set out in Chapter 8.

Testing approach

7.20. Participants in the E2E solution will need to ensure that the functionality that they are required to deliver and their interaction with the new CSS arrangements is robust and does not compromise the overall solution. In parallel, participants will need to ensure that the new arrangements do not adversely affect their ability to provide customer service and meet their other obligations under licence and industry codes outside of the Switching Programme (such as settlement and consumer billing).

7.21. Central co-ordination and assurance functions (see below at paragraph 7.23. and 7.24.) will scrutinise testing by all market participants. We will reflect on the lessons from recent large system changes in the energy sector to inform the Programme's approach to testing. An output of the Detailed Level Specification phase will be a detailed overarching testing plan. This will outline the test phases that participants will be required to undertake. They will be required to develop their own testing plans using this material.

7.22. Operators of key parts of the functionality required to run the overall E2E solution will need to test the areas they are responsible for to ensure that the overall solution is ready for delivery on time. These participants will include:

- the CSS Service Provider
- Suppliers (and Shippers in the retail gas market)
- operators of MPRS and UK LINK
- the owners of the ECOES and DES information services, and
- DCC Smart Metering services such as DSP.

Co-ordination and assurance functions

7.23. Implementing the E2E solution during the DBT phase will require central co-ordination functions, to plan and track progress for the activities of the many parties who will have to act to implement programme objectives, to co-ordinate test activities and to assure participants' technical readiness to deliver the E2E solution as required.

7.24. Co-ordination and assurance activities will include not only the technical integration of IT systems, but also the integration of operations undertaken by diverse participants in the E2E solution, and the provision of day-to-day programme management. Independent assurance will assess whether the whole programme and individual components within the E2E solution are on track to deliver on time and to an appropriate quality. We will learn from recent large system changes in the energy sector to inform the Programme's approach to these functions.

Next steps

7.25. We will continue to develop our implementation approach throughout the Detailed Level Specification phase. In particular, we will progress work on the post-implementation phase and business continuity planning in case of problems with implementation. The detail of our approach to some aspects of implementation (such as transition and the requirements for testing) would depend on the exact design of the CSS's mechanics.

7.26. Our Detailed Level Specification phase work will set out detailed approaches to transition as well as our expectations of those parties involved in implementing the new arrangements, in order to enable them to produce detailed plans for testing and post-implementation.

8. Regulation and governance of the switching arrangements, including transition

Chapter Summary

This chapter sets out our proposal to establish a new dual fuel Retail Energy Code (REC) to govern the CSS and wider switching and registration arrangements. Subject to consultation responses, we intend to establish the REC in a way that in future it could substantively replace the SPAA and MRA, together with any legacy elements and other industry codes more closely associated with the retail market than network operation. We are finalising the scope of the REC, which we would introduce as part of the Switching Programme.

We further propose that the REC govern the transitional arrangements necessary to facilitate the successful delivery of the Switching Programme, such as a managed approach to testing interdependent industry IT systems. Finally, we set out the process by which we propose to give effect to these changes, building upon the previously-issued SCR launch statement.

Question Box

Question 8: Do you agree with our proposal to create a dual fuel REC to govern the new switching processes and related energy retail arrangements?

Question 9: Do you agree with the proposed initial scope and ownership of the REC to be developed as part of the Switching Programme?

Question 10: Do you agree with our proposal to modify the DCC's licence, in order to extend its obligation to include the management and support of the DBT and initial live operation of the CSS?

Question 11: Do you agree that there should be regulatory underpinning for the transitional requirements and that this should be contained in the REC?

Question 12: Do you agree that we should pursue an Ofgem-led SCR process in accordance with a revised SCR scope?

Question 13: Do you have any comments on the indicative timetable for the development of the new governance framework?

The regulatory framework

8.1. The Ofgem Target Operating Model (TOM)²⁹ for moving to a faster, more reliable and cost effective-switching process proposed that the new switching arrangements be incorporated into the Smart Energy Code (SEC). Since the TOM was published in November 2015, we have developed our thinking on the necessary scope of reforms. We also re-examined whether the SEC would be the best way to regulate the new switching arrangements.

8.2. During the Blueprint phase, we explored options for the new governance framework for switching. In addition to the design principles³⁰ developed for the whole programme, we used the principles of better regulation that are embedded in much of what UK regulators and policymakers do, including with Ofgem's own statutory duties³¹, to assess options for where to locate the new regulatory obligations for switching. Those principles are:

- proportionality
- accountability
- consistency
- transparency
- targeting.

Rationale for creating a new Retail Energy Code

8.3. The current code governance framework for switching is fragmented, with many processes and central systems operating differently for the electricity and gas markets. Under the current code governance framework, switching arrangements and related central systems are primarily governed by:

- the MRA for electricity
- the SPAA and the Uniform Network Code (UNC) for gas.

8.4. There are also some supporting elements of the switching process that are contained in other codes such as the Balancing and Settlement Code (BSC) and the Distribution Connection Use of System Agreement (DCUSA).

²⁹ Ofgem, "[Moving to reliable and fast switching - Target Operating Mode and Delivery Approach v2](#)", 17th November 2015.

³⁰ See: www.ofgem.gov.uk/system/files/docs/2016/06/switching_programme_design_principles.pdf

³¹ Section 3A of the Electricity Act 1989 and Section 4AA of the Gas Act 1986

8.5. The switching programme is an opportunity to consolidate these into a more coherent and logical arrangement. We have used the better regulation principles above to consider the most appropriate dual-fuel code for the new arrangements. The longlist of options that we considered is in the January 2017 Strategic Outline Case (SOC)³². Since then, we have developed a shortlist: to locate the requirements in the Smart Energy Code or to create a new Retail Energy Code. Here we assess these options against the above principles.

8.6. **Proportionality** - The SEC ultimately acts as a binding contract between the holder of the Smart Meter Communication Licence (currently the Data and Communications Company (DCC)) and parties involved in the end-to-end management of smart metering. It was created under the Smart Meter Communication Licence as a one-to-many code for the discrete purposes of end-to-end management of smart metering in Great Britain. Introducing switching and potentially wider retail content into the SEC would involve reviewing and amending the objectives, governance structure and charging arrangements of the SEC. We do not consider this would be proportionate, given the REC alternative would enable the new arrangements to be put in place without a major review of the SEC, which was only introduced in 2013.

8.7. **Accountability** – The switching process involves a number of supplier-to-supplier interactions and is therefore better suited to a REC, as a many-to-many party code, than to the SEC which, as noted above, is a one to many code.

8.8. **Consistency** – Either the REC or the SEC would provide consistency between the fuels and allow for a single modification process, ensuring that the switching provisions would remain consistent at all times. However, there are close dependencies between core CSS-related switching functions and other switching functions, such as prepayment settlement and resolution of erroneous transfers. Therefore, if only the CSS-related switching arrangements were contained in the SEC and all other provisions remained in their existing code as now, they would become inconsistent over time as changes in other retail functions, or to switching, were made but not yet reflected in the other codes.

8.9. **Targeting** - Since the current switching processes and systems are interlinked with, or have dependencies on, a number of industry codes and agreements there are clear benefits in harmonising and consolidating related arrangements for electricity and gas under one Code. In the TOM, we considered that the SEC would provide a natural place to house such dual fuel governance, given the anticipated role of the DCC and the fact that it is already a dual fuel code. However, the change to the scope of the proposed registration arrangements, together with

³² https://www.ofgem.gov.uk/system/files/docs/2016/11/regulatory_and_governance_framework-summary_paper.pdf and https://www.ofgem.gov.uk/system/files/docs/2016/11/regulatory_and_governance_framework-main_paper.pdf

the interdependency of switching and other retail processes, suggested that the CSS governance should be closely aligned with the existing registration arrangements.

8.10. The SEC is mainly focused on the interaction with, and management of, smart metering. If it were expanded to include new switching and retail content, it would be challenging to keep smart and consumer-centric retail activities separate. It would be difficult to ensure code objectives, governance decision-making process and overall priorities were balanced between consumer-focused outcomes and the secure and effective management of smart metering.

8.11. We therefore consider that creating a dual fuel REC would be the best option for delivering new governance arrangements that meet not only the requirements of the programme but also the better regulation principles above.

Potential REC scope

8.12. Establishing a REC presents an opportunity to consolidate the separate gas and electricity retail arrangements under the SPAA and MRA, and other retail functions that, for obsolete legacy reasons, currently sit in other industry codes. For instance, the arrangements for tackling energy theft are currently set out in SPAA for gas, with the equivalent electricity provisions contained in the DCUSA. Although other codes such as the BSC and UNC should remain largely unaffected by the new switching arrangements, there is an opportunity to review and streamline the relationship these codes have with the retail processes.

8.13. Here we set out our proposals for the initial scope of the REC, for the Switching Programme. The REC could potentially set out all the rights and responsibilities of energy suppliers and other market participants, but this goes beyond the scope of the switching programme and the SCR that supports it. Further development of the REC beyond its initial scope and how it could be achieved in practice will need to be considered in due course, including whether industry parties could do so in accordance with industry processes. Whilst we would not preclude the possibility of including some or all of the areas not directly related to switching in the REC from day one, we would need to assess whether substantive re-drafting may first be required, and the extent to which this is practicable and appropriate within the scope and timescales of the programme. For instance, although it would be relatively straightforward to migrate one or more self-contained schedules from the SPAA and/or MRA to the REC and allow for future changes to be progressed through the REC change control processes, it may not be practicable to first align separate gas and electricity schedules into a single dual fuel document.

8.14. To support the new switching arrangements, the REC will need to include provisions for establishing the constitution and governance of the code, including process for modification of code provisions. It will need to contain the new arrangements associated with the CSS and any other new central systems (such as the customer enquiry service) as these are not currently provided for elsewhere. To deliver the benefits of having a REC, we propose that the initial REC also include all areas directly affected by switching. In addition, we propose to include transitional

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requirements on market participants to ensure successful delivery of the switching arrangements. Figure 7 shows those areas we propose be included in the initial REC and those we are not currently proposing to prioritise.

Figure 7: REC scope



8.15. This illustration reflects our current thinking and is not a final proposal. We will in due course publish our thinking on how we expect the existing and emerging requirements to map onto the proposed code structure.

Possible licence modifications

8.16. The establishment of a new REC would require changes to a number of licence conditions upon different parties. Here we look at what these licence requirements might be.

Code 'ownership' and maintenance

8.17. We consider that as with the other industry codes, it would be appropriate for a relevant category of licensee to hold responsibility for the ongoing ownership and maintenance of the REC. In due course and subject to new legislation creating a new category of licensee, these responsibilities could fall upon a dedicated code manager that is entirely separate to those parties who are operationally engaged in the switching and retail processes. However, until such time, we consider that responsibility for owning and maintaining the REC could be imposed on existing licensees who in turn could competitively procure an organisation to act as the REC manager, who would discharge these duties on their behalf. We have considered three options of existing licensees as set out below.

8.18. **Gas and electricity suppliers** – The REC will govern, as a minimum, the arrangements relating to customers switching energy supplier. Potentially it could then also be expanded over time to consolidate all retail market activity. Therefore, our lead option for code ownership are gas and electricity suppliers and we are minded to introduce a licence obligation in all gas and electricity supply licences to this effect. This would be consistent with the existing SPAA arrangements in gas, but for electricity it would shift primary responsibility for the code arrangements (currently the MRA) from electricity distributors to suppliers.

8.19. **Data Communications Company** – Given the DCC will be providing the CSS and offering services to suppliers and networks, it is an option to introduce a condition in the smart meter communications licence to own and maintain the REC. This would be similar to the existing condition in that licence for the SEC. However, as discussed above, given the scope of the REC is wider than just the CSS service, ie it covers all switching matters, we think that it would be more appropriate to impose the obligation on suppliers.

8.20. **Network operators** - the Gas Transporters and Electricity Distribution Network operators are currently responsible for providing the gas and electricity registration systems. These arrangements are governed through the MRA and UNC respectively³³. Network operators have equivalent obligations to own and maintain these codes. Given their limited role in the new switching arrangements, which is not related to their core roles, we do not consider that it would be appropriate to introduce a new obligation to own and maintain the REC.

Accession and compliance

8.21. Gas and electricity suppliers - The REC will set out rights and obligations relating to the new switching arrangements, and specifically obligations requiring suppliers to register new customers and rights to use the CSS. We therefore propose

³³ Pursuant to Standard Condition 23 of the Electricity Distribution licence and Standard Special Condition 15/Standard Condition 9 of the Gas Transporters licence

to place an obligation on all gas and electricity supply licensees to accede to, and comply with, the REC. To the extent that there are distinctions between the domestic and non-domestic arrangements, we would look to identify and address these distinctions as part of the code governance.

8.22. Network Operators – currently, the network operators are responsible under licence for the provision of registration services, and are party to the MRA and SPAA³⁴. Network operators will continue to play a role in the creation of new meter points and will still need to use registration data. As such they will also have an interface with the CSS. Therefore, we propose to place an obligation on all electricity distribution and gas transporter licence holders to accede to, and comply with, the REC.

8.23. Data Communications Company (DCC) – the DCC has a licence obligation to procure the CSS. We think this obligation should be extended to include the effective delivery of the CSS, and oversee the service (see para. 8.29.). The REC will set out DCC’s obligations for operating the CSS and the service standard it must deliver to the users of the system. Therefore, we propose to place an obligation on the smart meter communications licence holder to accede to, and comply with, the REC.

8.24. We are considering whether other parties such as gas shippers should be obligated to accede to the REC. In addition, we will need to consider whether there are benefits in allowing certain unlicensed parties such as supplier agents or third party intermediaries to accede to the code. This will depend on the scope of the REC.

Funding of the REC

8.25. For any licensed party to maintain the REC effectively, we consider it likely that a new legal entity will be created in the form of a company that can act on behalf of the licensed entity/entities in the procurement of goods and services, such as code administration and website provision. This is particularly the case where there is a collective licence obligation, eg on gas and electricity suppliers.

8.26. The exact scope of this company’s role is not yet determined, including the extent to which it will have directly employed staff rather than provide services through outsourced contracts. But for the purposes of this chapter, we consider that it will operate similarly to SPAA Ltd and MRASCo. For simplicity, we will refer to this body as the REC Company (RECCo). Suitable funding arrangements will need to be agreed to cover its operating costs. These costs may start to accrue earlier than the REC itself takes effect. For instance, it may be appropriate for the RECCo to start procuring code administration services and develop a suitable publication website, ahead of those services going live, alongside the CSS.

8.27. The REC will facilitate the discharge of obligations of gas and electricity licence holders, therefore, we consider it appropriate for those licensees to make a suitable

³⁴ The gas registration systems are primarily governed by the UNC

contribution to the REC operating costs. Given the anticipated scope of the REC, we consider it likely that the majority of funding would come from energy suppliers. However, noting that network operators currently provide funding to SPAA Ltd and MRASCo and that they will have some ongoing responsibilities covered by the SEC, they may have a role in funding the RECCo.

8.28. We have no strong views at this time on how the costs should be split between gas and electricity suppliers, or between the individual suppliers in those sectors. This could suitably be resolved between suppliers themselves, but is an issue which we need to look at further.

Procurement, funding and governance of the CSS

8.29. In accordance with Condition 15 of the DCC licence, the cost to the DCC of developing and procuring the CSS are allowed for in its price control and passed through to energy suppliers and DNOs in accordance with the methodology in Section K of the SEC. At present this condition only covers the period up to contract award for the CSS and other switching programme contracts, but there will be a continuing need for a body to oversee the delivery and performance of the CSS during the DBT stage and potentially beyond. We are currently minded to modify the DCC's licence, in order to extend the obligation on DCC to include the management and support of the DBT and initial live operation of the CSS. In extending the licence obligation, we would allow the continuing use of the existing funding framework, which would include the pass-through of any charges made under contract from the CSS to the DCC. We would propose to manage these initial costs for DBT through an ex-post plus price control framework which should help ensure costs incurred are economic and efficient, with a longer-term view of shifting to ex-ante price control.

8.30. We consider that extending the requirement within the DCC's licence will de-risk the implementation of the CSS and provide more certainty to market participants. In particular, this will avoid the difficulties that have been experienced elsewhere, such as on the Smart Meter Implementation Programme, when the party responsible for procurement was not also responsible and accountable for managing the contracted service providers.

8.31. Any obligations in the DCC's licence should be underpinned by an incentive/sanction regime, supported through the price control framework, to encourage behaviour in line with the principles of the programme and mitigate delivery failures by the DCC or its contractors. We anticipate that any new or updated obligations in the DCC licence would follow a similar approach to that used currently within the programme, whereby the timeliness and quality of the DCC's deliverables is incentivised through the CRS adjustment terms of its licence³⁵. We

³⁵ See: www.ofgem.gov.uk/publications-and-updates/decision-margin-and-incentives-dccs-role-within-transitional-phase-switching-programme

would also look to link a stakeholder satisfaction incentive to the CRS adjustment terms.

8.32. We anticipate holding an initial consultation on draft licence modifications in Q1 or Q2 2018 with the statutory consultation in Q3 or 4 2018. We aim to consult and direct on DCC's margin and incentives in parallel with any licence modifications. We will progress this through engagement with industry via the programme governance forums and future consultations.

Transitional rules

8.33. The successful implementation of the Switching Programme will depend on whether industry is ready to interact with the CSS when it goes live, and thereafter in the integrity of data flowing to and from the CSS, and through the extended energy supply chain. Our recent experience of such IT-dependent programmes suggests that we will need independent assurance that industry parties are carrying out key activities before, during and after the DBT phase³⁶ to ensure that the programme as a whole can move forward.

8.34. These requirements are being further considered in the delivery workstream of the programme and at the delivery forum in the coming months. We anticipate establishing principles for the transitional requirements in the first part of 2018. Subject to consultation responses, we expect to do a statutory consultation on licence modifications in Q3 of 2018. This would allow the transitional requirements to be fully effective by Q1 2019, before the DBT phase begins.

8.35. We expect to introduce a combination of licence and code requirements on gas and electricity suppliers for activities they need to do before, during and after the DBT phase. Where code requirements are needed, we propose to include these requirements in the REC. This will ensure that activities are undertaken as scheduled, and issues are resolved when they arise.

8.36. In the case of the DCC, we will have regulatory oversight through its licence obligations to deliver the CSS. Similar to recent experience with Project Nexus, go-live of the new arrangements will depend on the readiness of parties over whom the DCC has no direct control. However, we do see a role for DCC in working collaboratively with its customers and future users of the CSS to support and assist their preparations, so it will have some levers to influence user progress.

Transitional requirements

8.37. The transitional requirements will be informed by the lessons we have learned from similar industry programmes, such as Project Nexus and the Smart Meter

³⁶ The DBT phase is scheduled to commence in May 2019.

Implementation Programme. The examples below are not exhaustive, but illustrate what these transitional requirements may seek to achieve. We will develop them further and consult on them.

8.38. Any transitional requirements need to be considered in the context of a key principle around go-live: it will not be determined by the pace of the slowest. We will develop a decision-making framework around go-live that will allow a considered decision to go-live, even if some suppliers are not ready. This will commercially incentivise them to be ready.

Co-operation with the programme

8.39. Irrespective of the approach taken to such issues as test plans, it is clear that to maintain effective control, and ensure that the market as a whole is ready for the cutover to the new CSS arrangements, individual parties will need to engage effectively with the switching programme. This includes both following the published output, developing and executing plans to hit milestones and reporting on their own progress.

Data migration

8.40. Owners and/or stewards of data items contained within the data model for the new switching arrangements may be required to migrate data into the CSS or other data services in a certain format and at a certain time, initially for testing and eventually to populate the new dual fuel register.

Data cleansing

8.41. Data items such as MPxNs and address fields will need to be cleansed so the CSS register can be populated with the high quality data necessary to achieve our primary aim of improving the reliability of the switching processes. We propose that a new database be established to synchronise address data. There are likely to be other data items that will need to be cleaned through other means and potentially by other parties. We think it would be preferable for this cleansing to happen before migration rather than after.

Testing

8.42. Participants in the end-to-end solution will be required to develop their own specific testing plan which reflects the requirements of the overall plan, to ensure that they are compatible with the end-to-end solution. We anticipate that they will also be required to undertake testing activity according to this firm-specific plan and to share the results with the programme and other market participants if necessary. This test activity may include testing in tandem with the CSS provider or other market participants. In addition, firms may be required to provide anonymised test data and to share this with other market participants.

Incentives and remedies

8.43. So that parties adhere to the transitional requirements, and to provide the programme with potential remedies where they do not, we think we should underpin the transitional requirements with relevant incentives and/or sanctions if they default. Here are some of the options we are considering:

- **Financial incentives:** the DCC would be subject to a delivery and quality-based incentive scheme for implementing the CSS
- **Licence enforcement:** where we introduce requirements into licences, for example key milestones for parties' preparations, Ofgem will have recourse to our enforcement powers in the event of a breach
- **Restrictions on registration:** this would involve preventing suppliers who have not met a requirement from registering new customers until they are compliant. Such sanctions already exist in certain codes for default on credit rules³⁷. In the case of readiness for CSS go-live, it may not be necessary to impose a regulatory restriction on registrations. Those who are not ready would simply be unable to acquire a new customer as the only route for them to do so would be through the CSS process. This – as well as being unable to object to a customer switching away – should be a good incentive on suppliers to be ready for go-live
- **Remedial plans and oversight:** this would involve requiring parties who fall behind their agreed implementation plans to develop a remedial plan, and to formally report against it. We will further consider the reputation incentive from publishing non-anonymised information where parties are falling behind or otherwise subject to a remediation plan.

Significant Code Review

8.44. The Switching Programme launched a SCR in November 2015³⁸. The SCR process provides a tool for Ofgem to initiate wide-ranging and holistic change and to implement reform to a code-based issue. Since the launch statement, the SCR process options have been modified as part of our Code Governance Review, and the options available to progress the SCR are:

- 1) **Ofgem directs licensee(s) to raise the appropriate modification(s)**
 - we issue a direction setting out high level principles (with the detail to be developed by industry) or more specific, detailed conclusions to be

³⁷ For example, UNC Section V

³⁸ See: www.ofgem.gov.uk/sites/default/files/docs/2015/11/switching_scrlaunch_17112015.pdf

given effect through code modification(s), which would follow the standard industry processes. The SCR phase would end on the date the licensee has made one or more modification proposals in accordance with directions issued by the Authority.

- 2) **Ofgem raises the modification proposal(s) itself** – this dispenses with the need for a direction, but thereafter follows the same standard industry processes as option 1). Under this option, the SCR phase would end on the date Ofgem raises the modification proposal(s).
- 3) **Ofgem leads an end to end process to develop the code modification(s) including provision of legal text** – the standard modification process would not apply. We would lead the consultation and engagement needed to develop the appropriate code change(s). The SCR phase would therefore end when the Authority makes a decision on any modification proposal(s).

8.45. We plan to adopt option 3. We believe that a co-ordinated, Ofgem-led process for the entire suite of code and licence modifications would be the most efficient way to deliver the Switching Programme outcomes. This reflects the complexity of the task of developing a new code and amending a number of existing codes, including to move across and update content to the REC. As set out in our SCR guidance³⁹ this does not preclude our following a different SCR process if circumstances change.

8.46. Given the evolution of the reform package since we published the TOM, we will review the SCR launch statement to ensure it accurately reflects the scope of the programme.

Indicative timetable

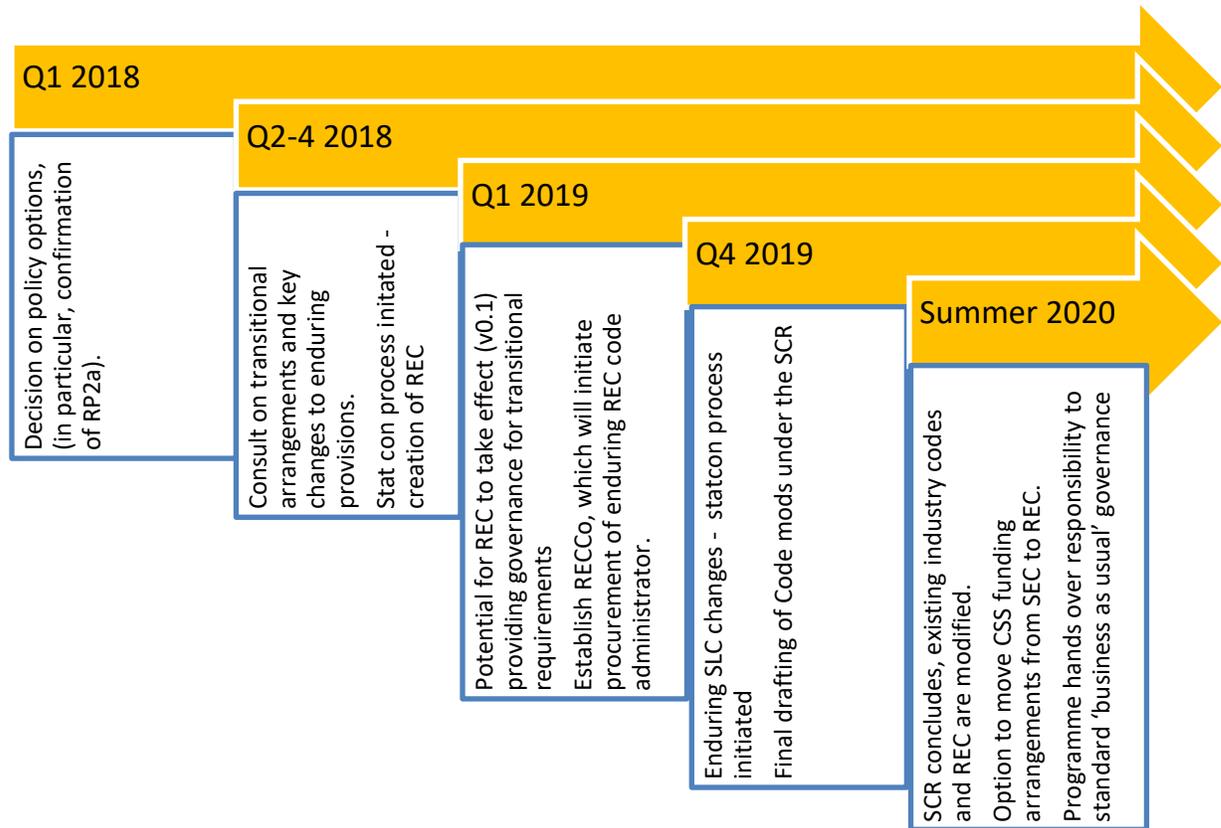
8.47. We do not expect the enduring provisions of the REC together with complementary modifications to licence(s) and other industry codes to take effect until the associated systems are ready to go-live, but we recognise industry parties' need for certainty in order to make informed investment decisions. We therefore intend to publish both the draft of the enduring REC provisions and, as far as practicable, drafts of the consequential modifications to existing industry codes before the start of the DBT phase. Under this approach, should it become necessary to revise the draft modifications in light of issues arising from this phase, they could be readily made before the SCR concludes and formal code modifications take effect.

³⁹ For further details on the SCR process see our SCR guidance document at: https://www.ofgem.gov.uk/system/files/docs/2016/06/scr_guidance.pdf

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8.48. We expect to be flexible on the regulatory design output if and when the requirements of the programme change. The timetable below is therefore only indicative. In practice, each milestone may need to be changed/updated.

Figure 8: Indicative timetable



Appendices

Index

Appendix	Name of appendix
1	Consultation response and questions
2	The reform packages
3	Blueprint phase detailed policy papers
4	A phased transition approach
5	Data mastery model
6	Feedback questionnaire

Appendix 1 – Consultation response and questions

Ofgem would like to hear the views of anyone interested in the issues in this document. We would especially welcome responses to the questions at the beginning of each chapter heading and below.

Please send us your responses by 3 November 2017 and send them to:

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Unless you mark your response confidential, we'll publish it on our website, www.ofgem.gov.uk, and put it in our library. You can ask us to keep your response confidential, and we'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004. If you want us to keep your response confidential, you should clearly mark your response to that effect and include reasons.

If the information you give in your response contains personal data under the Data Protection Act 1998, the Gas and Electricity Markets Authority will be the data controller. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. If you are including any confidential material in your response, please put it in the appendices.

After we have considered the responses to this consultation, we will publish our final decision and direction in January 2018.

CHAPTER: Two

Question 1: Do you agree with our assessment that RP2a provides the best value option to reform the switching arrangements for consumers and with the supporting analysis presented in this consultation and the accompanying IA?

CHAPTER: Three

Question 2: Do you agree that CSS should include an annulment feature which losing suppliers can use to prevent erroneous switches? Please provide evidence alongside your response. If you are a supplier, please support your answer with an estimate of the number of occasions over the past 12 months when you might have used such a feature had it been available.

Question 3: Do you agree that CSS should always invite the losing supplier to raise an objection, even where the Change of Occupancy (CoO) indicator had been set by the gaining supplier? If you are a supplier, please support your answer with evidence of the number of times in the past 12 months that you have raised an objection where the Change of Tenancy (CoT) flag had been set.

Question 4: Do you agree that use of the annulment and CoO features should be backed by a strong performance assurance regime? Please comment on ways in which such a regime could be made most effective, and back up your response with evidence.

CHAPTER: Four

Question 5: Do you agree with our proposal to require DCC to competitively procure the communications network capability required to deliver the new switching arrangements?

CHAPTER: Five

Question 6: Do you agree with our proposal to have a three-month transition window (aiming to protect reliability) during which time suppliers have to meet additional requirements if switching in less than five working days? Please support your answer with evidence.

Question 7: Do you agree with our proposal to change the requirement on speed of switching to require switches to be completed within five working days of the contract being entered into (subject to appropriate exceptions)? Please support your answer with evidence.

CHAPTER: Eight

Question 8: Do you agree with our proposal to create a dual fuel REC to govern the new switching processes and related energy retail arrangements?

Question 9: Do you agree with the proposed initial scope and ownership of the REC to be developed as part of the Switching Programme?

Question 10: Do you agree with our proposal to modify the DCC's licence, in order to extend its obligation to include the management and support of the DBT and initial live operation of the CSS?

Question 11: Do you agree that there should be regulatory underpinning for the transitional requirements and that this should be contained in the REC?

Question 12: Do you agree that we should pursue an Ofgem-led SCR process in accordance with a revised SCR scope?

Question 13: Do you have any comments on the indicative timetable for the development of the new governance framework?

Impact Assessment: CHAPTER 3

Question 1: Do you agree that our assessment of industry and public sector costs, including our approach to managing uncertainty, provides a sound basis for making a decision on a preferred reform package?

Question 2: Do you agree that we have selected the appropriate policy option around objections, cooling off, meter agent appointment and MCP ID for each reform package?

Impact Assessment: CHAPTER 4

Question 3: Do you agree that our assessment of the direct benefits of the reforms, including the various assumptions that we have adopted, provides a sound basis for making a decision on a preferred reform package?

Impact Assessment: CHAPTER 5

Question 4: Do you agree that our illustrative analysis of the indirect benefits provides a reasonable assessment of the potential scale of the savings that could be made by consumers through increased engagement in the market?

Impact Assessment: CHAPTER 6

Question 5: Do you agree with our assessment of the wider benefits of our reform proposals?

Impact Assessment: CHAPTER 7

Question 6: Do you agree that our assessment of the net impacts for consumers provides a sound basis for making a decision on a preferred reform package?

Appendix 2 – The reform packages

Introduction

1.1 This appendix describes the current arrangements as well as the content of the three reform packages that were included in the SOC. Each reform package is described below and the associated document “Reform Packages Spreadsheet” sets this information out in tabular form, highlighting differences between the packages. The packages comprise:

- Reform Package 1 (RP1): which explores the extent to which existing systems and processes could be enhanced to deliver the objective of reliable and fast switching
- Reform Package 2 (RP2): harmonising gas and electricity switching in a new central switching service (CSS), but continuing to use the existing enquiry systems
- Reform Package 3 (RP3): in addition to introducing a new CSS, this package includes implementation of a new MIS to replace the ECOES and DES enquiry systems.

1.2 Since publication of the SOC a fourth reform package has been identified – labelled RP2a. This package is described in the main body of the document.

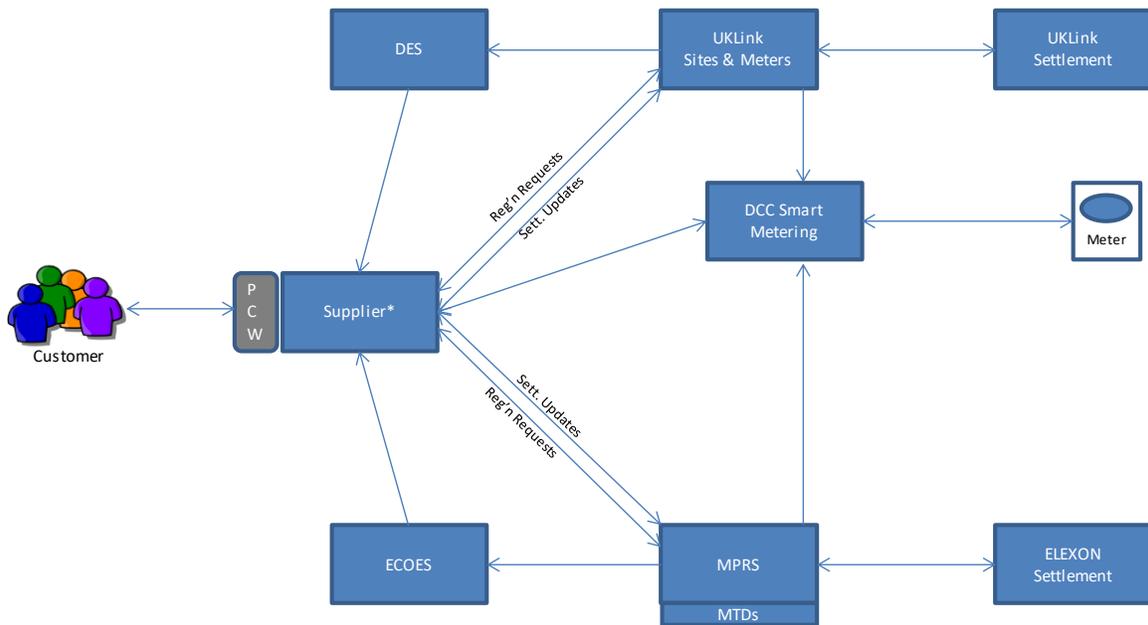
Current arrangements and the reform packages explained

Do nothing (RP0)

1.3 Currently, separate switching arrangements exist for electricity and gas. They are defined, for electricity, in the Master Registration Agreement (MRA) and, for gas, in the Uniform Network Code (UNC) and the Supply Point Administration Agreement (SPAA). They are supported by the Meter Point Registration System (MPRS) run by distribution network operators (DNOs and iDNOs) and the UK Link system run by Xoserve on behalf of gas transporters (GTs and iGTs). The existing arrangements were described in the Target Operating Model⁴⁰. The current solutions architecture supporting these arrangements is depicted in figure 1.

⁴⁰ Ofgem, [Moving to reliable and fast switching: Target Operating Model and Delivery Approach v2](#), November 2015

Delivering Faster and More Reliable Switching: proposed new switching arrangements



* In gas, shippers submit registration requests to UKLink

Figure 1 - RP0: the current solutions architecture⁴¹

Reform Package 1 (RP1)

Introduction

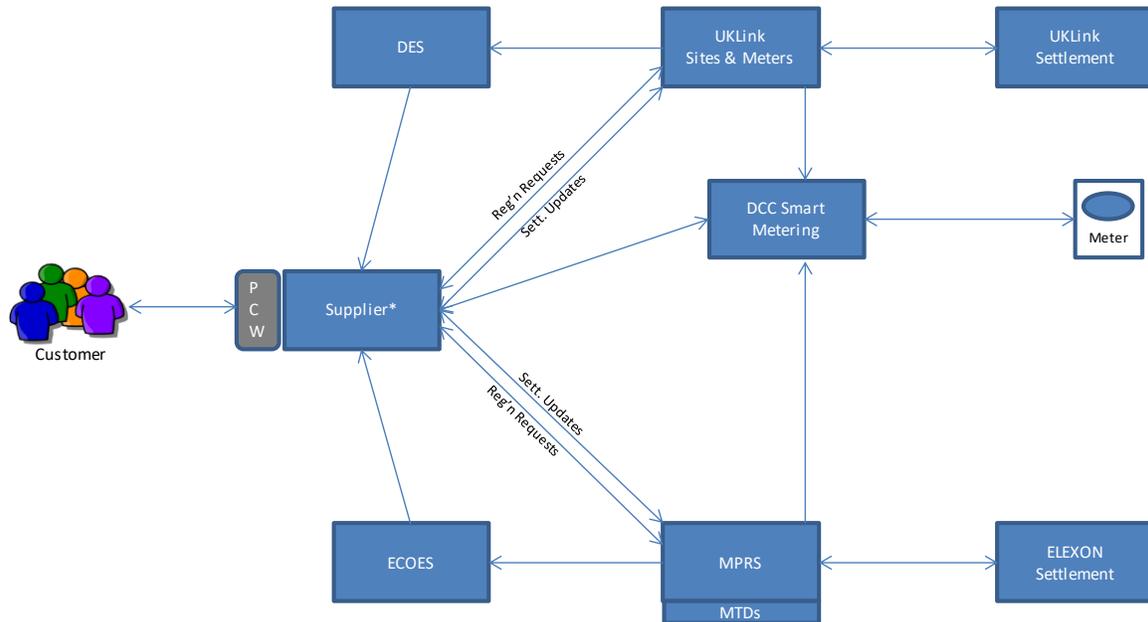
1.4 RP1 represents the 'do minimum' option. It involves a lower level of intervention than RP2a, RP2 and RP3 and is designed to explore the extent to which the existing systems and processes could be enhanced to deliver the objective of reliable and fast switching. The emphasis in RP1 is on reducing the time allowed for specified tasks (eg the time window granted to incumbent suppliers to decide whether to object to a switch) and on making incremental modifications where data quality issues are frequently encountered (eg related meter point administration numbers (MPANs), address data). No changes are proposed to the governance arrangements, which would continue under the MRA and UNC.

⁴¹ In the solution architecture diagrams, Price Comparison Websites (PCW) are shown in grey to highlight that use of PCWs by consumers or suppliers is optional: consumers may choose to interact directly with a supplier

Delivering Faster and More Reliable Switching: proposed new switching arrangements

Features

1.5 RP1 would be delivered using existing IT systems. As currently, switches in gas and electricity would proceed independently, even for dual fuel consumers. This is reflected in the high level solution architecture diagram in figure 2. In gas, the switching process would be initiated by the shipper whereas in electricity switching would be supplier-driven.



* In gas, shippers submit registration requests to UKLink

Figure 2 – RP1: The solution architecture under Reform Package 1

1.6 In both electricity and gas, the switching processes operate on a working day basis. Although a switch may fall over a weekend or on a public holiday (eg to align with a contract starting on the first of a month), the times specified to complete activities involved in the switch are calibrated in working days. In gas, the operational requirements would be tightened under RP1 such that all UK Link transactions must be processed within a single overnight run (currently the requirement is to process all transactions within 24 hours of receipt).

1.7 Where the consumer has one or more smart meters installed, the arrangements for re-configuring the smart meters would be the same as currently. In summary, UK Link and MPRS provide details of switches to DCC and these are used to determine which supplier can access each smart meter. However, the timing of updates can prevent suppliers from aligning the re-configuration of a smart meter to midnight on the date of the switch. The P302 modification to the Balancing & Settlement Code (which establishes a mechanism establishing a switch read from smart meters) would continue to be followed.

1.8 In gas, the role of Meter Asset Manager (MAM) would be split into similar roles to those recognised in electricity, namely the Meter Operator (MOP) and MAP. This would allow the owner of the meter assets at each MPRN to be identified, thereby improving the control that MAPs exercise over the physical handling and charging for their assets.

1.9 The systems would be modified to support the following features:

- The objections window in both gas and electricity would be reduced to one working day for domestic consumers and two working days for non-domestics. For a domestic consumer, Supplier A (shipper in gas) would be notified of a switch request prior to the start of a working day (eg 6 am) and would be required to raise an objection by the end of that working day (eg 6 pm): for a non-domestic consumer it would be by 6pm on the following working day. If no response is received it would be assumed that no objection is raised. This modification would significantly reduce the time required to complete a switch.
- The gas confirmation window (the period between the end of the objections window and the switch) would be reduced to one working day. This would also contribute to reducing the time required to complete a switch.
- In electricity, links would be established between Related MPANs (as defined in the MRA) such that for each pair, one MPAN would be denoted the 'parent' and the other the 'child'. Suppliers would only be allowed to process switch transactions in respect of the 'parent'. When the 'parent' is switched, the 'child' MPAN would automatically be switched with it. This would allow suppliers to avoid problems that arise when they are unaware of the presence of Related MPANs.
- In electricity, an indicator would be added to distinguish between import and export MPANs. Where both import and export MPANs exist at a premises, this feature should help suppliers to avoid switching the wrong MPAN.
- In electricity, an indicator would be added to identify the type of consumer (domestic or non-domestic) at each MPAN (an indicator is already captured for gas). This would assist suppliers to determine the correct tariff for a new consumer and to verify MPANs.
- In both electricity and gas, an indicator would be added to identify meter points situated on Licence Exempt Networks. This would assist suppliers / shippers to verify MPxNs.
- In gas, the MAM ID code in UK Link would be replaced by a MOP ID and new fields would be created to record the MAP ID. Suppliers would be responsible for updates to the MAP ID but may choose to delegate these updates to the MOP. When a switch transaction takes place the MAP would be notified of the new shipper and supplier.
- In gas, the nomination process for large supply points (LSPs) would be modified. Shippers would still be able to access transportation prices for

specified MPRNs from Xoserve but the requirement to hold a valid offer would be removed from the critical path for switching.

- In electricity, new fields would be created in MPRS to record the MAP ID, the meter serial number (MSN) and the meter install date (these meter technical details (MTD) fields are currently maintained in ECOES). The MTD fields and the MAP ID would be updated by the MOP. When a switch transaction takes place the MAP would be notified of the new supplier.
- The current online enquiry mechanisms which are used to access data held by ECOES and DES would be supplemented by API interfaces. These would allow authorised parties to retrieve data through computer-to-computer links without human involvement. For example, the quotations process within a supplier's website may make a direct enquiry to ECOES to see whether a smart meter is installed at a specified meter point, to determine if a time of use tariff can be offered.
- The parameters set for standstill and advance registrations would be re-set to 7 and 28 calendar days respectively, to introduce harmonisation between gas and electricity.

Other changes

1.10 RP1 would not require additional systems to be procured but would require enhancements to the functionality of UK Link and MPRS as described above. The enquiry services - DES and ECOES - would also need to be modified to make additional fields available and to provide new access methods. Industry parties would need to modify their systems to reflect the proposed changes to the central systems.

1.11 In addition to the changes to their systems, parties would also need to make changes to their business processes, including:

- **Cooling off:** in addition to fulfilling their statutory obligations suppliers would need to meet two new regulatory obligations. Firstly, they would be required to offer terms equivalent to those the consumer would have faced, had they not switched, to any consumer who makes a switch, cools off and decides to return to their former supplier (Supplier A). Secondly, when a consumer cools off, Supplier B would be required to continue to supply energy at the tariff in force prior to cooling off, for a minimum period of 30 calendar days. After this period of grace has expired, if the consumer has not switched, Supplier B would be permitted to apply an alternative tariff in line with the existing licence conditions relating to deemed contracts.
- **Address matching:** when new meter points are created network businesses would be required to match meter point addresses on UK Link and MPRS to a standard GB address list, procured by industry. This process would help to identify the correct meter point and improve the identification of meter points at the same premises. One of the existing Code administrators would be nominated to procure the standard GB address list and to take a lead data

steward role in respect of meter point addresses (although address changes in UK Link and MPRS would still be made by GTs/DNOs).

- Related MPANs: participants would be required to undertake a one-off exercise to codify pairs of Related MPANs (ie to identify each as a parent or child and record a pointer to the other) and introduce procedures to capture this information when Related MPANs are created and withdrawn (including when one MPAN is de-energised).

Implications for large consumers

1.12 Larger - primarily non-domestic - consumers typically engage in more complex buying procedures and contracts are often signed significantly in advance of the switch date. The arrangements proposed in RP1 for advance registrations would continue to support this.

1.13 One issue that would affect larger gas consumers is the proposed change to the nomination procedure. For LSPs gas shippers currently submit nomination requests to Xoserve and receive a quotation for the gas transporter's services. Under RP1 the current process would be modified such that it is removed from the critical path for switching but still provides shippers with certainty about the costs of transportation.

1.14 A further issue affecting gas shippers with large consumers will be the shortening of the gas confirmation window to one working day. Shippers will be required to provide nominations for daily metered (DM) sites by 1pm on D-1.

Reform Package 2 (RP2)

Introduction

1.15 RP2 represents a more significant level of intervention as it involves transferring the switching functions currently provided by UK Link (gas) and MPRS (electricity) to a new CSS, procured by DCC. The aim of this change is to harmonise the switching arrangements across gas and electricity by operating them on a single platform. The new CSS would be designed to enable suppliers - wherever appropriate - to process switching transactions 'same-nextday' (ie at the end of the day the switch request is submitted / start of next day).

Features

1.16 RP2 would involve the removal of switching functions from UK Link and MPRS and the implementation of a new CSS. This is reflected in the high-level solution architecture diagram in figure 3.

Delivering Faster and More Reliable Switching: proposed new switching arrangements

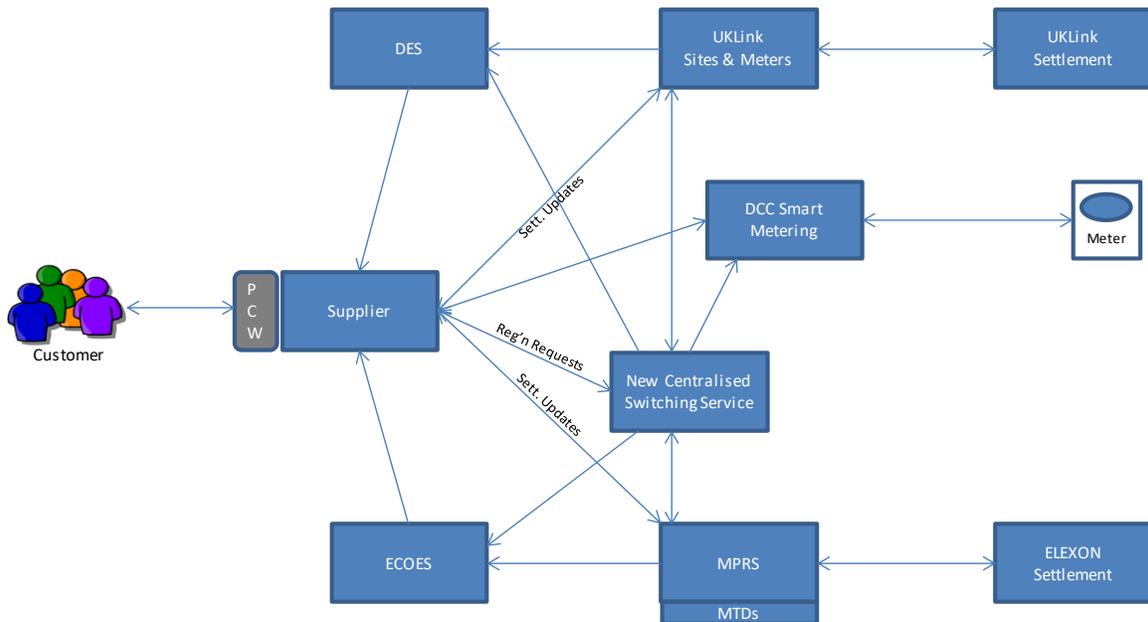


Figure 3 - RP2: Solution architecture with new CSS

1.17 In gas - as in RP1 - the role of MAM would be split into the constituent roles of MOP and MAP.

1.18 The new CSS would be developed to support the following features:

- Suppliers would submit switch requests to CSS for validation, testing for objections. Objections would be tested using an instant reactive approach wherein Supplier A would be required to respond in real-time to an invitation to object. This would allow a switch request submitted prior to gate closure at 17:00 to be executed that night, at midnight. Furthermore – and irrespective of the switching speed chosen – the customer would receive confirmation that their switch would proceed while they were still at the point of sale (eg a PCW website, supplier call centre agent)
- Switch requests would be accepted up to 28 days ahead of the specified switch date and a parameterised standstill period (up to 10 days) would be set to mitigate data integrity risks that could arise from multiple switches in quick succession. These features would allow a switch to be effective by the next calendar day but would avoid the risks of multiple switches being processed in a very short period of time
- Where appropriate arrangements would be harmonised across gas and electricity. A characteristic of the domestic energy market is the high proportion of dual fuel consumers: as of January 2016 there were 20 million dual fuel consumers from a total of 28 million electricity consumers and 23

million gas consumers.⁴² Whereas dual fuel consumers currently experience different processes and timescales between gas and electricity RP2 would harmonise procedures and offer the opportunity to link dual fuel switches to a guaranteed switch date. In gas, a further example of this harmonisation would be the change-over from switching being shipper-led to become supplier-led

- The CSS would execute switches on the specified date and maintain the register of which supplier is responsible for each active meter point. Relevant parties would be notified that a switch has become effective.
- The CSS would record a premises served address, linked to a standard GB address list. DCC would be obliged to undertake data stewardship activities (eg processing updates to the standard GB address list). This would reduce the number of instances where a switch fails because the meter point cannot be identified correctly.
- For each meter point only one confirmed pending switch would be permitted at any time. Switching requests could be withdrawn between the points of confirmation and execution by the supplier that raised the switch request. Once an Erroneous Switch (ES) has been agreed (using established ES procedures) the CSS would process an ES switch to return the meter point to the correct supplier (in the same way it would a regular switch). These features would ensure suppliers have tools to correct errors promptly and efficiently.
- The CSS would reflect the IDs of agents appointed by the registered supplier and, for gas, CSS would master the ID of the shipper. The shipper ID would be submitted on the switch request as a mandatory data item. CSS would issue switch notices to losing agents, to both the gaining and losing shipper and to the relevant network operator. The processes for appointing and de-appointing agents would continue to utilise existing procedures and agent IDs would be mastered in UK Link and MPRS.
- Consumer type (domestic or non-domestic) would also be included in the switch request and recorded in CSS. This would assist suppliers and PCWs to determine the correct tariff for a consumer and to verify MPxNs. It should also simplify and improve the reliability of reporting, especially in electricity where customer type often has to be inferred from profile class
- The CSS would provide information to DCC for access control to smart meters. This would allow re-configuration of smart meters to be downloaded for activation at midnight on the date of the switch becoming effective.
- The CSS would provide updates to ECOES and DES so that switching data is available for enquiry purposes, including the identification of switches that have been confirmed and are awaiting execution.

⁴² Source: CMA Energy Market Investigation, June 2016

1.19 The existing systems would be enhanced to support the following features:

- UK Link and MPRS would provide details of newly created or withdrawn meter points to CSS, plus any changes to meter point status that impact the switching process
- Gas confirmation window - as for RP1.
- Related MPANs - as for RP1
- Import and export MPANs - as for RP1
- Licence Exempt Networks - as for RP1
- Gas: MAM, MOP and MAP- as for RP1
- Gas: nomination for LSPs - as for RP1
- Electricity: MAP, MSN and install date - as for RP1
- UK Link and MPRS would receive updates from CSS of executed switches. These systems would continue to support settlement and the billing of network services without significant modification. UK Link and MPRS would notify CSS of changes to agent IDs mastered by these systems. This would allow CSS to issue switch notices containing the correct agent IDs, and sent to the correct (losing) agents
- ECOES and DES would be modified as described in RP1 to allow real-time access (via API) in addition to online enquiry. ECOES and DES would be modified to receive updates from CSS (rather than UK Link or MPRS), where mastering of a data item has been transferred to CSS (eg of confirmed and executed switches)

Other changes

1.20 RP2 would involve the procurement and implementation of a new CSS and the modification of existing systems as described above. Industry parties would need to modify their systems to reflect the proposed changes to the central systems.

1.21 In addition to the changes to their systems, parties would also need to make changes to their business processes, including:

- Cooling off - as for RP1
- Meter point addresses: network businesses would need to record the premises served address in addition to the meter point address, to align the address of the premises served by the meter point to the standard GB address list and to co-operate with the data steward to keep gas and electricity addresses aligned

- Related MPANs - as for RP1.
- CES - the CSS provider would be required to provide a national helpline to answer queries such as "what is my meter point number?" or "who is my supplier?" Second-line support (for example to resolve complex plot addresses) would be provided by the network operators (ie the current operators of this service).
- Commercial relationships with PCWs - the ability of CSS to support confirmation of a switch at point of sale may prompt suppliers to re-assess which processes they outsource to PCWs. For example, they may require PCWs to undertake greater validation of consumer-provided information or introduce new arrangements in the event that a switch request is rejected because an objection is raised.
- Changes to settlement parameters or metering coincident with a switch - under RP2 the CSS would process switch transactions while other changes (for example to change the settlement basis from non-half hourly (NHH) to half hourly (HH)) would continue to be processed through UK Link and MPRS. Suppliers would need to ensure that these updates are scheduled such that the integrity of settlement and network charging is maintained. This would be assisted by the fact that settlement runs are scheduled several days after the settlement day, thus allowing errors to be corrected before they have a financial impact.

Implications for large consumers

1.22 The arrangements for advance registrations, LSP nomination process and the gas confirmation window would be the same as for RP1.

1.23 Another change which may impact the market for large gas consumers is the transfer of responsibility for switching from shippers to suppliers. We recognise that an error in entering the shipper ID on a registration request could result in a significant financial implication for both the incorrect and correct shipper and propose that a supplier / shipper validation matrix be maintained in the CSS. This would ensure that suppliers cannot enter the shipper ID of a shipper with which they have no contractual relationship.

1.24 Paragraph 1.18 refers to domestic consumers with smart meters seeing their smart meter being re-configured at midnight to coincide with the switch. This is not intended to imply that there would be a change to the start of the settlement day in gas. Switch reads for gas non-daily metered consumers can be taken at any time within five working days of the switch and the proposed arrangements for smart metering are consistent with this in that the switch read (taken from the daily read log) would be within five hours of the switch. The start of domestic contracts is generally at midnight on the switch date and suppliers are satisfied that any errors in settlement volumes arising from the midnight to 5am gap should balance out over time.

1.25 For larger (generally non-domestic) gas consumers, supply contracts are more likely to become effective from 5am on the switch date. For daily metered sites (where the meter is programmed to record consumption in a 24 hour period starting at 5am) this is the default assumption. Accordingly the settlement day would continue to start at 5am and the CSS would just record an effective date for the switch. Suppliers can decide whether to specify an effective start time (in addition to date) in their consumer contracts and the UNC would continue to define the rules for taking switch reads.

Reform Package 3 (RP3)

Introduction

1.26 RP3 is a further development of RP2. In addition to the implementation of a new CSS and changes to UK Link and MPRS, RP3 includes the development of a new MIS. The MIS would provide a single point through which all meter point data recorded centrally would be accessible. This would allow the DES and ECOES services to be withdrawn (subject to deciding whether there is a continuing demand for DES services, including access to historical gas meter readings). By providing a single point of access to meter point data, it is expected that data quality would be improved and that suppliers and their agents (including PCWs) are better-placed to ensure that all consumer switching initiatives lead to a successful switch.

Features

1.27 RP3 would involve the introduction of a new CSS as in RP2 and, in addition, would involve the replacement of DES and ECOES by an integrated MIS. This is reflected in the high-level solution architecture diagram in figure 4.

Delivering Faster and More Reliable Switching: proposed new switching arrangements

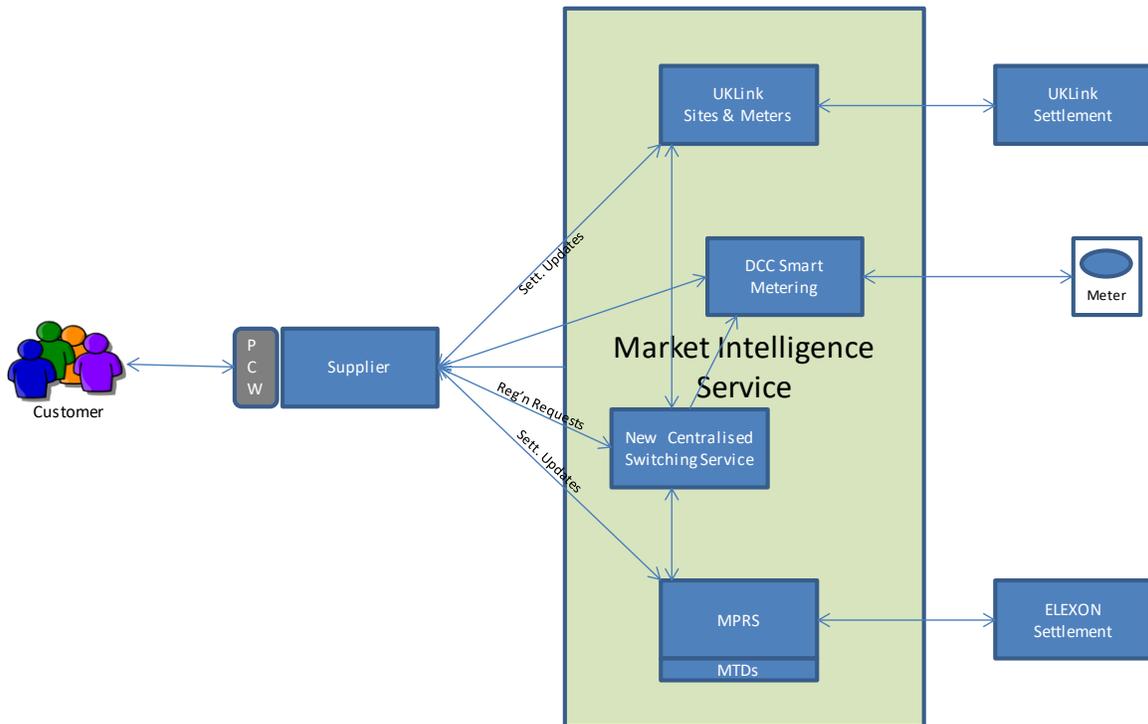


Figure 4- RP3: Solution architecture with new MIS providing access to meter point data

1.28 All the features of RP2 would apply equally to RP3 (see paragraphs 1.16 to 1.18) with the exception of the modifications to ECOES and DES. Features of the new MIS would include:

- The MIS would provide real-time access (via API) to all meter point data maintained by the CSS, UK Link (excluding meter readings) MPRS and the DCC smart meter inventory. The currency of data from the CSS and the smart meter inventory would be near real-time and data from UK Link and MPRS would be as at the last update (at least daily). This would ensure suppliers and PCWs have the most current data available when they engage with consumers in sales and switching activities.
- Active data stewardship obligations would be placed on the MIS provider to undertake continual data monitoring and to expedite data improvement notices (eg to query a supplier as to why a profile class appears inconsistent with the consumer-type indicator).
- Anomaly detection and other processes would be established to mitigate the risks of unauthorised data mining by parties with access to MIS. Parties accessing MIS data would be required to comply with data protection legislation and to retain evidence for regulatory reporting purposes to ensure that data retrieval is properly authorised. These steps would minimise the risk that parties breach data privacy or regulatory obligations.



Delivering Faster and More Reliable Switching: proposed new switching arrangements

- Online enquiry access to the MIS would also be available, providing flexibility for smaller industry parties who do not wish to invest in API links.
- The MIS would provide a central source for market reporting and performance assurance monitoring

Other changes

1.29 RP3 would involve the procurement and implementation of a new CSS and a new MIS and the modification of existing systems as described above. Industry parties would need to modify their systems to reflect the proposed changes to the central systems.

1.30 In addition to the changes to their systems, parties would also need to make changes to their business processes. These would be the same as those identified for RP2 (see paragraph 1.21).

Implications for large consumers

1.31 We have not identified any specific implications for large consumers from implementing a MIS.

Appendix 3 – Blueprint phase detailed policy papers

SOC Papers - Issue	Link
Solution architecture options	DA summary paper
Objections	DA summary paper
Cooling off	DA summary paper
Dual fuel – one fail/all fail	DA summary paper
Standstill	DA summary paper
Repository of agent information in the registration service, and agent appointments	DA summary paper
Differentiation by customer-type on the CSS	DA summary paper
Advance registration	DA summary paper
Supplier of last resort	EDAG summary paper
Interactions with Smart Metering	DA summary paper
Erroneous transfers	DA summary paper
Transition strategy	EDAG issues paper
Data improvement strategy	EDAG issues paper
DBT Phase Governance and Assurance strategy	EDAG issues paper
Systems integration strategy	EDAG issues paper
Post implementation strategy	EDAG issues paper
High-level Data Migration strategy	EDAG issues paper
High-level Testing strategy	EDAG issues paper
Regulatory and governance framework	EDAG summary paper Detailed annex

Updated Papers - Issue	Link
Objections	Update paper
Agent appointments	Update paper

Appendix 4 – A phased transition approach

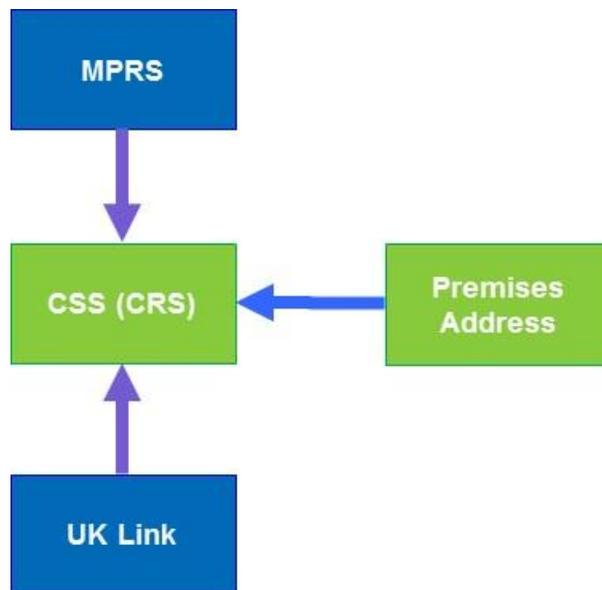
2.1 Our Blueprint phase work has identified that a single-phase, cross-market implementation approach is preferable to a phased implementation on the basis of geography or supplier type (for example). A single-phase, cross market approach will be less costly and carry fewer risks to data integrity due to the absence of dual running and will not favour any group of suppliers or customers above others.

2.2 Nonetheless we were concerned we are concerned by the implementation risks inherent in a single-phase (“big bang”) approach to go-live. This concern has also been shared by our stakeholders. In response, we have developed a proposed staged approach for implementation, based on delivering parts of functionality in stages, but retaining a single cross-market go-live event for CSS. A phased approach allows us to test interfaces between different parts of the new switching system in a non-production environment.

2.3 The phased approach outlined below is intended to be illustrative of the likely benefits of a phased transition when compared to implementation in a single phase. The timing and content of the phases will depend on the final design of the switching solution.

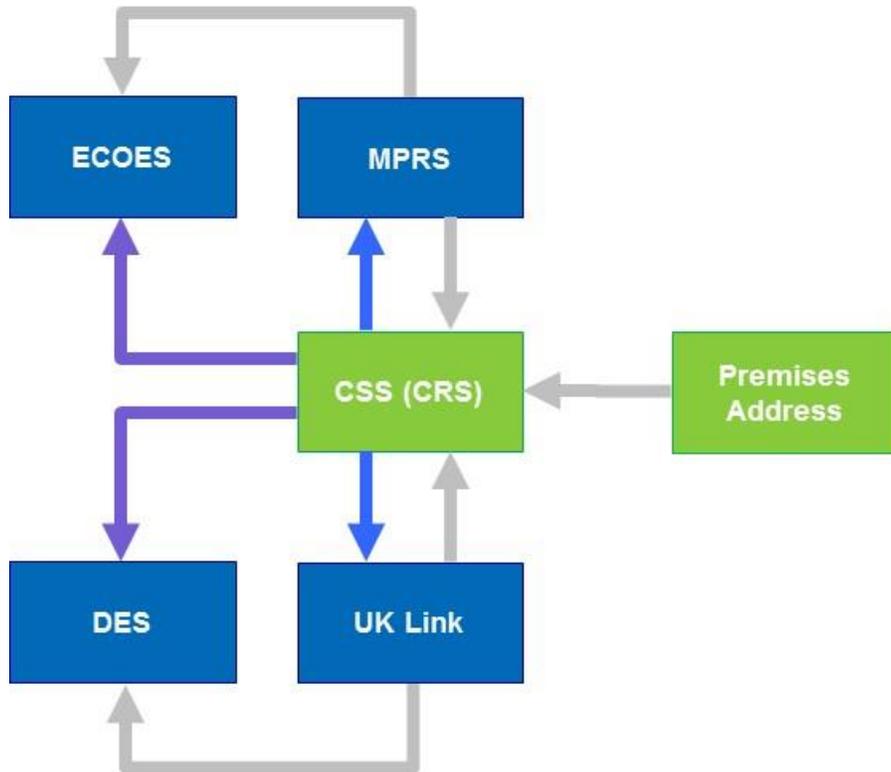
Phase 1: CSS establishment and data migration

2.4 Phase 1 sees the Initial integration and synchronisation of industry central systems in a non-production environment and the initial migration of historic Meter Point and Registration data to CSS. A procured premises address database is used to populate the CSS with new Energy Retail Location data item, beginning the exercise to reconcile high-quality UK premises address database with meter point data. This phase allows the verification of the initial data migration and load to the CSS, and testing of the integration of data from MPRS and UK Link outside of a production interface.



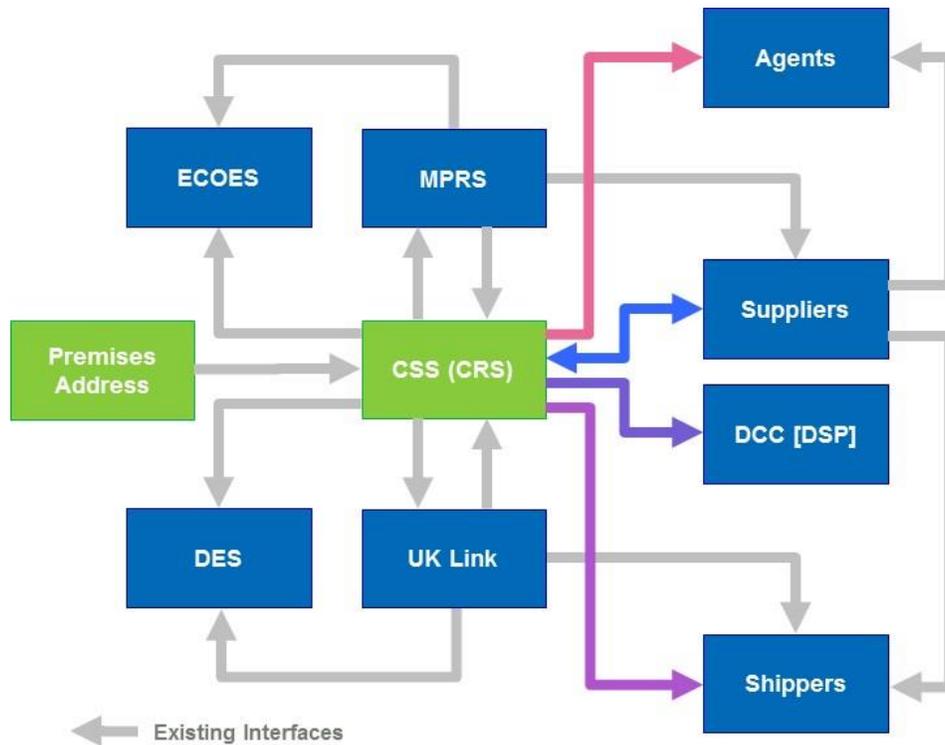
Phase 2: Interface testing with industry data products

2.5 Phase 2 sees interfaces established between existing industry data resources and CSS systems in a non-production environment. Premises address data is now made available to other industry system such as ECOES and DES), bringing benefits of data improvement early. However, the CSS does not master any data with the exception of the Retail Energy Location.



Phase 3: Go-live in a production environment

2.6 Phase 3 represents go-live for the new system for suppliers, and the point at which the new switching arrangements become live. Integration of the new systems is completed and all interfaces operate in a production environment. Superseded interfaces are retired. At this point consumers will be able to enjoy the benefits of five working day, harmonised gas and electricity switching.



Appendix 5 – Data mastery model

3.1 In the SOC we included a Data Architecture appendix which described the work undertaken during 2016 to identify data concepts relating to switching and the data elements to support them. We included a spreadsheet to indicate how data would be managed, and how it would be accessed by users, under the three reform packages covered by the SOC.

3.2 Since then, we have begun the DLS stage of the design work and are working on the basis that RP2a would be adopted. This approach was chosen as a 'least regrets' option: the design assumptions for DLS will only be finalised once responses to this consultation have been fully considered.

3.3 The DLS work to date has focused on design of the business processes, further analysis of the data architecture, the development of interaction sequence diagrams and other related artefacts. The data architecture is a fundamental element of the new switching arrangements. Improvements to data quality and to the accessibility of data will underpin the reliability of switching. To provide industry participants with an insight into the data architecture, and the responsibilities that market participants will have in relation to data stewardship, we are publishing the current version of the data mastery table⁴³. This is one of the artefacts that form the data architecture and will continue to evolve as the design work proceeds.

3.4 For each data element that has been defined, the table identifies:

- The data service (ie the IT system) and the actor (ie industry role – Supplier, Shipper, Registration Agent, etc.) that masters that data element (mastering role = M)
- The data services and actors that can access that data element (mastering roles = S or A⁴⁴)

3.5 For example:

- the "Registration Effective From Date" is mastered by CSS (actor is Registration Agent) which can be accessed by a range of other data services and actors (eg the DNO Data Service (MPAS), the DCC Data Service Provider (DSP), the Energy Supplier Data Service).

3.6 The following notes are included to help readers interpret the spreadsheet:

⁴³ https://www.ofgem.gov.uk/system/files/docs/2017/09/data_mastery_model.xlsx

⁴⁴ S=Secondary: a system which references data mastered elsewhere. A=Authorised Provider: a form of secondary which is an approved provider for distributing a data element (e.g. a MAP Data Service might master the date on which the MAP took ownership of an asset but a MOP Data Service might be the authorised provider of that data to a central database).



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- some data elements are expressed in generic form: for example RMP (Registrable Metering Point) can exist in two forms – RMP(gas) and RMP(electricity) – but is presented as a generic data element in the spreadsheet with two ‘masters’. Similarly, address components (eg SAF Postcode) exist for both gas and electricity meter point locations
- references to the Registration Agent should be interpreted as being references to DCC as the operator of CSS
- references to DCC relate to DCC’s role as operator of the central smart metering systems
- the Governance Data Service refers to a mechanism for capturing decisions of the Code Panel or other governance mechanism: for example to change a system parameter (eg the standstill period) or the list of participant IDs that are authorised to participate in switching.

If you have detailed questions about the data mastery table, please send your query to switchingprogramme@ofgem.gov.uk.

Appendix 6 – Feedback questionnaire

General feedback

We believe that consultation is at the heart of good policy development. We are keen to hear your comments about how we've conducted this consultation. We'd also like to get your answers to these questions:

1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about this document's tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6. Any further comments?

Please send your comments to stakeholders@ofgem.gov.uk