



Issue Report

Issue 53 'Reforming the change of supplier meter read process for smart electricity meters'

Issue 53 has been raised to aid the development of changes to the BSC to reform the Change of Supplier process for sites with smart electricity Meters.

The proposed new process developed will require a Modification to include it in the BSC and relevant Code Subsidiary Documents.

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About This Document

This document is the Issue 53 Group's Report to the BSC Panel. ELEXON will table this report at the Panel's meeting on 20 March 2014.



Any questions?

Contact:

David Barber



david.barber@elexon.co.uk



020 7380 4327

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Background

The existing Non Half Hourly (NHH) Change of Supplier (CoS) process is complicated, relying on multiple information flows being sent between new and old Suppliers and Supplier Agents. Due to the number of flows of data being sent the process is prone to error. When the data flows are not sent or cannot be processed by the recipient, delays occur which can result in inaccurate data entering Settlement. The costs of resolving these delays and process errors are borne by Suppliers, Supplier Agents and ultimately the consumer. More broadly, the complexity of the process and the time allowed for agent appointment and the exchange of data, leads to a lengthening of the transfer process overall.

Ofgem's CoS Project, a work stream within its 'Promoting smarter energy markets' work programme, has the objective of delivering a "fast, reliable and cost effective Change of Supplier (CoS) process that will facilitate competition and build consumer confidence". In the context of this, Ofgem is considering reforms to support next day switching. Ofgem has engaged with a range of stakeholders through its Change of Supplier Expert Group (COSEG) and identified a number of reform options, which take advantage of the opportunities presented by smart metering and the advent of the Data Communications Company (DCC). Such reforms include reducing the reliance of the CoS process on agent appointment, and data transfers between Suppliers and their agents.

Ofgem wrote an open letter to the Balancing and Settlement Code (BSC) Panel on 6 December 2013, highlighting and welcoming a new Issue to look at these process reforms. Following this letter, Issue 53 was raised by EDF Energy.

Solution

The proposed Issue 53 solution, as considered by the Group, will ensure that the old and new Supplier have all the tools and information they need to obtain and process their respective CoS Meter reads for billing and Settlement. The Issue 53 solution will remove the dependencies between:

- the smart CoS Meter read process and the Agent Appointment processes, as the CoS read will be obtained by the old and new Suppliers through accessing the smart Meter via the DCC; and
- the old and new Suppliers as they will obtain a closing and opening CoS Meter reading separately by accessing the smart Meter via the DCC.

Conclusions

The Group believes that for DCC registered smart Meters, the process will work and improve the efficiency of the CoS read process, helping to realise the benefits of the rollout of smart Meters.

To take the Issue 53 solution forward a Modification will be required.

The Group has identified a number potential options relating to the more detailed elements of the Issue 53 solution that could be considered by any necessary Modification Workgroup as part of any Assessment Procedure.

Other areas outside of Issue 53 and the BSC have been highlighted. The outcomes of these areas may have an impact on the Issue 53 solution or prompt further revisions to the solution and scope of the solution post implementation.

Background

In order to establish the respective Settlement and customer billing liabilities on a Change of Supplier (CoS), Meter readings must be obtained on (or close to) the date and time when the new Supplier takes over responsibility for the customer's electricity supply.

The old Supplier needs a final closing read from which they will close the account and provide a final bill to the customer for energy consumption up to the point the electricity supply switches to the new Supplier. An opening read by the customer's chosen new Supplier is used as a starting point for electricity consumption going forwards. The closing and opening CoS reads should be the same.

From a BSC perspective these CoS Meter reads are used in Settlement, to ensure that the Settlement system remains balanced based on metered consumption data that is both accurate and allocated to the appropriate Supplier.

The Change of Supplier Process

Under the current Non Half Hourly (NHH) CoS process, the NHH Data Collector (NHHDC) appointed by the new Supplier is responsible for determining the CoS reading for the Supply Start Date¹ (SSD) on behalf of both the new and old Suppliers.

In the situation where the new Supplier's NHHDC and NHH Meter Operator Agent (NHHMOA) are different to those appointed by the old Supplier, the old NHHMOA transfers the Meter Technical Details (MTDs) to the new NHHDC via the new NHHMOA. This transfer of MTDs is required so the new NHHDC can interpret the Meter readings obtained from a customer's Meter correctly.

The old NHHDC transfers a Meter reading and Estimated Annual Consumption (EAC) to the new NHHDC to allow the new NHHDC to validate the CoS readings. The provision of this information by the old NHHDC also enables the new NHHDC to deem a reading in the event that valid actual readings are unavailable and to provide the EAC to the new NHH Data Aggregator (NHHDA) for use until the first Annualised Advance (AA) has been calculated.

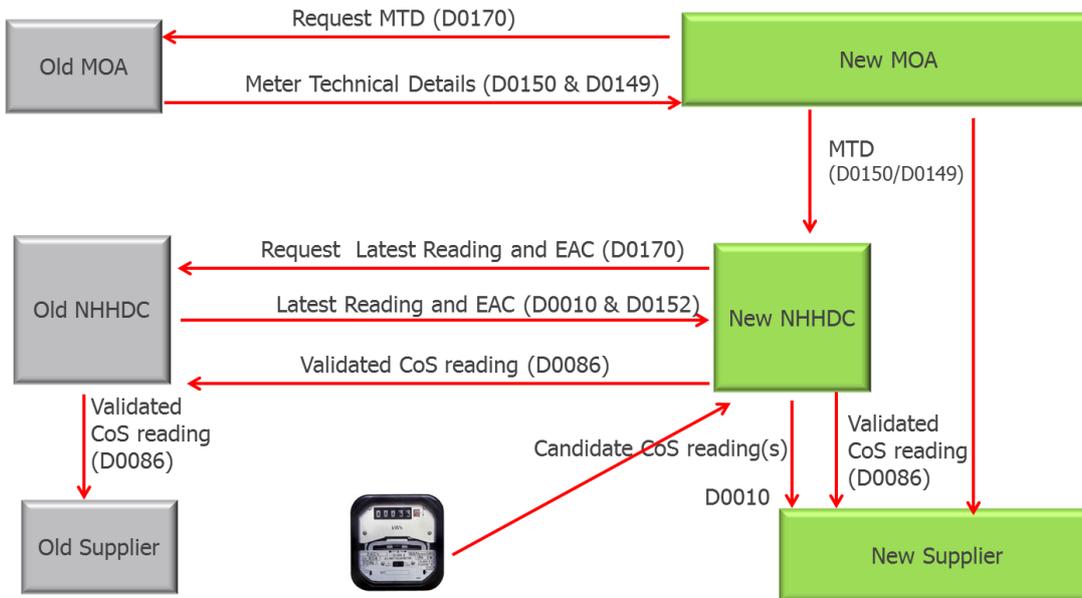
The transfer of MTDs, EACs and Meter readings between the old and new Supplier Agents are dependent on:

- the new Supplier appointing new Supplier Agents;
- the new agents being notified of each other's identities (and of the relevant old agents) by the new Supplier; and
- the relevant data flow requests being sent.

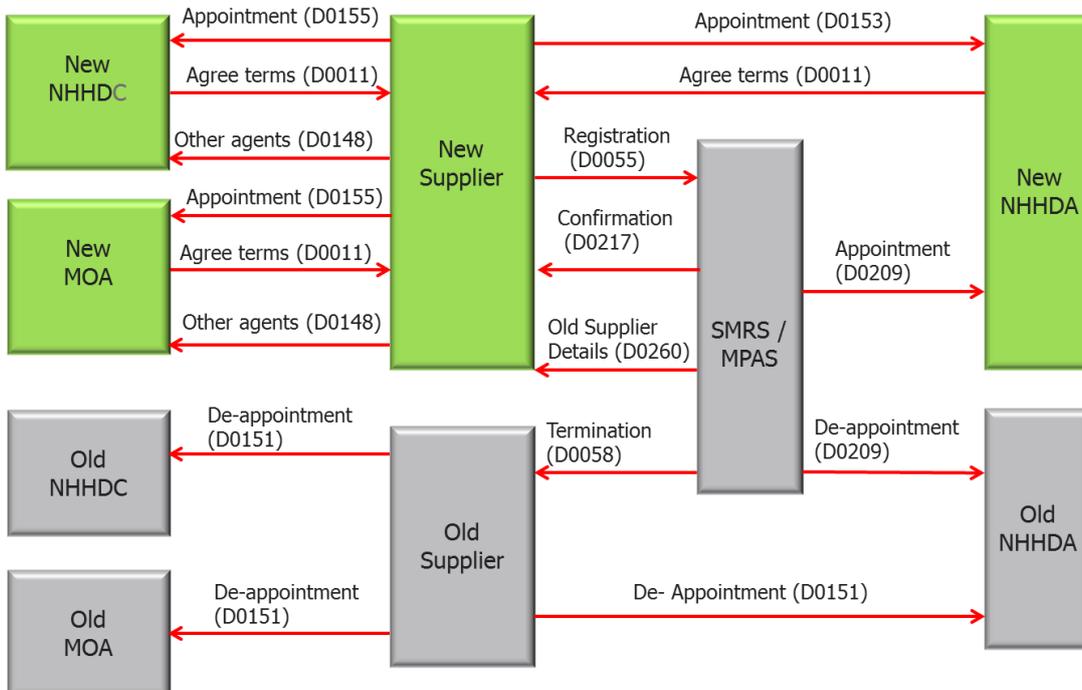
The following two diagrams summarise the current CoS process and the registration and agent appointment/de-appointment processes. The current CoS read process has direct links and dependencies on the agent appointment process.

¹ A new SSD is the point at which a new Supplier starts providing electricity to a customer. This commences at midnight on the day the Supplier starts providing electricity to that customer. Currently the CoS read used on SSD is derived from candidate reads taken from SSD \pm 5 Working Days (WDs). Once the candidate CoS reading is confirmed this is then dated as the read on the SSD.

Current CoS process²



Agent appointment/de-appointment process³



The current CoS reading process is complicated and is dependent on multiple data flows. As a result the current process is lengthy, and prone to error in the instances when these data flows are not sent or cannot be processed by the recipient. Delays and failures in the process can result in inaccurate data, impacting both Settlement and customer billing. The costs of resolving these delays and failures are borne by Suppliers, agents and ultimately consumers.

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² Please note that the CoS process diagram shows a simplified version of the process in its current form. Approved [CP1395 'Distribution of Configuration Details for Smart Meters'](#) will modify this process when it takes effect on 26 February 2015 as part of the February 2015 Release. The changes will take into account the presence of the DCC, and if a customer has a smart DCC serviced smart Meter the Supplier will obtain a CoS read rather than the new NHHDC. This will be achieved by sending a request to the smart Meter via the DCC

³ A list of the D-flows referenced in this diagram can be found in Appendix 1

Why was Issue 53 raised?

In July 2012, Ofgem set out its intention to improve the CoS process by making use of the benefits that smart Meters will provide. Ofgem's ambition is a fast, reliable and cost-effective process that facilitates Supplier competition and builds consumer confidence. Simultaneously, it is important that any reforms maintain or improve the accuracy of Settlement.

Smart Meters are already being rolled out to homes and small businesses, with the large scale roll-out commencing in 2015. The current expectation is that the smart Meter roll-out will be completed by 2020.

To support the 'smart' functionality of these Meters, the DCC has been created. The DCC has responsibility for linking smart Meters in homes and small businesses with the systems of energy businesses (e.g. Suppliers and Supplier Agents among others). The presence of the DCC should make it easier for Suppliers to access Meter reads remotely and more quickly. This in turn should aid the accuracy of Settlement, as more actual Meter readings will be available. In addition the customer experience should improve as readings needed on instances such as a CoS will be more accurate and, subject to the implementation of the Issue 53 solution, will no longer be subject to delays as a result of a reliance on Supplier Agent appointments and information transfers.

Ofgem and the Change of Supplier Expert Group

Ofgem has been engaging with a range of industry participants and undertaken research into making use of smart metering to improve the CoS processes and the customer experience.

Part of this has been achieved through discussions at the COSEG and supporting sub-groups.

On 6 December 2013 Ofgem issued an [open letter](#)⁴ welcoming a participant to raise a BSC Issue, to consider what changes should be made to the process by which CoS Meter reads are obtained and processed for smart electricity Meters. Part of this Issue would be consideration of the reform proposals developed at the Ofgem led COSEG meetings.

[Issue 53 'Reforming the Change of Supplier Meter read process for smart electricity Meters'](#) was raised by EDF Energy on 9 December 2013.

Issue 53 Proposed Process

A high level proposed solution, as discussed at the Ofgem COSEG meetings, was included in the Issue 53 form. Both the Issue 53 form and Ofgem open letter set out a number of additional areas that would need to be considered to develop a full working solution:

1. Choreographing opening and closing CoS reads;
2. Preventing double-billing / under-billing;
3. Additional information (e.g. Auxiliary Load Control Switches);
4. Access to information required post-CoS;
5. Exception management (e.g. Meter faults, Meter communication problems);

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⁴ 'Open letter on reforming the change of supplier (CoS) Meter read process for smart electricity Meters'

6. Applicability of new processes to smart Meters not serviced by the DCC;
7. Use for the D0311'Notification of Old Supplier Information' flow to support the proposed process;
8. Issues arising from running both smart and non-smart CoS processes during the transition period of the smart roll-out (i.e. ensuring that Suppliers and Supplier Agents know which process is being followed for a given Metering System); and
9. Implementation timescales.

In addition to considering the proposed process and the areas to consider set out above, the Issue 53 Group also considered whether there were any other solutions and approaches which could better facilitate the objectives set out by Ofgem, and support Settlement accuracy.

3 Proposed Issue 53 Solution

The following section sets out the proposed solution as initially discussed at the COSEG meetings and subsequently refined through Issue 53 Group discussions. Any potential options that could be considered by a resulting Modification Workgroup have been captured. More detailed discussion and other matters considered are captured in Section 5.

What is the scope and effect of the Issue 53 solution?

The Issue 53 solution will only apply to the CoS process where the smart Meter⁵ is serviced by the DCC. Initially the process will only apply when the new Supplier elects to continue using DCC services for the Metering System (i.e. will exclude concurrent CoS and DCC opt-out⁶).

The proposed Issue 53 process will remove existing dependences between the old and new Suppliers (and associated agents) on a CoS event. There will be no dependency between the old and new Supplier in respect of obtaining closing and opening reads via the DCC and any exchange of data between their respective agents (although some of these exchanges will still need to take place).

Issue 53 proposed Change of Supplier read process

On a CoS event the old Supplier will take a final (closing) reading(s), by obtaining a reading(s) from the smart Meter's 'Daily Read Log' on the SSD. The old Supplier will then send the final CoS readings to its NHHDC (the old NHHDC) for validation.

As part of obtaining the final readings, the old Supplier may be required to take a record of the 'total cumulative reading' from the smart Meter on the SSD (again from the Daily Read Log). This is for use in the event of a disputed CoS read between the old Supplier and customer (or between the two Suppliers).

While it is envisaged that the old Supplier will obtain the closing read on the SSD, the old Supplier will be able to obtain the SSD readings from the Daily Read Log for up to 31 days, before the entry in the rolling log is overwritten.

The new Supplier will take an opening read for each of the relevant time of use registers it will be using, following any re-configuration of the Meter by the Supplier. As per the old Supplier, the new Supplier may be required to take a total cumulative reading from the Daily Read Log on the SSD, in case of disputed reads between the new Supplier and the customer (or between the two Suppliers).

The DCC serviced smart Meter CoS process considered by the Issue 53 Group is summarised by the following diagram:



What is a 'Daily Read Log'?

A SMETS 2 smart Meter is required to maintain a Daily Read Log – a 31 day rolling record of midnight readings from various registers. These registers include the total cumulative register and each of the 48 time of use registers.



What is the 'total cumulative register'?

This is the record of total consumption over time, since the Meter was first installed. It is similar to the consumption measured on a 'dumb' single rate Meter.



What are 'time of use registers'?

A SMETS 2 smart Meter has 48 time of use registers, of which 1-48 can be used by a Supplier, to measure consumption at different points during the day. This enables the Supplier to then apply consumption to the tariff agreed between the Supplier and customer.

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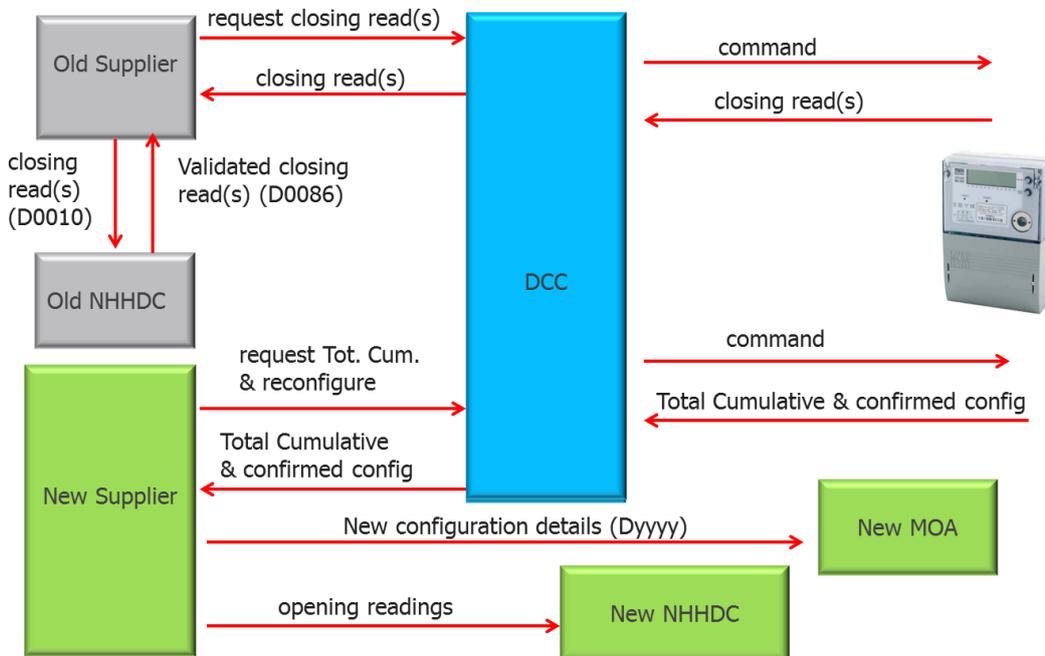
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⁵ The Issue 53 process will apply to Smart Metering Technical Specification (SMETS) 2 smart Meters serviced by the DCC. The Issue 53 solution would need to be validated against the SMETS 1 to determine if the Issue 53 process could apply to these as well if a SMETS 1 Meter was serviced by the DCC.

⁶ Use of DCC services is mandatory for Profile Class 1 and 2 Metering Systems, but optional for Profile Class 3 and 4 Metering Systems.



Agent Appointment process

The Issue 53 proposed solution does not involve any changes to the registration and agent appointment processes, which remains as summarised in the diagram in Section 2. Suppliers will have the flexibility to initiate appointment of Supplier Agents as required, while recognising that the new Supplier will likely still appoint its agents close to SSD.

The new Supplier's agents (NHHDC and NHHMOA) will need to know that they have been appointed to a DCC serviced Smart Metering Technical Specification (SMETS) 2 Meter via an appropriate indicator in the D0155 'Notification of Meter Operator or Data Collector Appointment and Terms' appointment flow. This could be either through an existing field or the creation of a new one.

The NHH Data Aggregator (NHHDA) will be notified through the D0153 'Notification of Data Aggregator Appointment and Terms', which does not require a new indicator as the NHHDA does not need to differentiate between Metering Systems with smart and legacy Meters.

Areas for consideration by a Modification Workgroup

As noted above, an appropriate indicator in the D0155 may be needed to show what type of Meter it is and whether the Metering System is DCC serviced. The Issue 53 Workgroup identified two options, which could be considered further by any Modification Workgroup taking forward the Issue 53 solution. The change could be either:

- New smart Meter options within the existing 'Regular Reading Cycle' data field (noting that this field is only populated for NHHDCs so a change to the flow rules would be needed to allow it to be populated for NHHMOAs).

Note that this was the preferred approach of a number of Issue 53 Group members as the costs associated with this change may be less than creating a new data field;

- New smart Meter options within the existing 'Service Reference/Service Level Reference' data field;

- Indicate Meter type via the existing 'Contract Reference' data field (already introduced by [CP1395 'Distribution of Configuration Details for Smart Meters'](#)); or
- A new data field specifically for flagging the type of Meter it is (e.g. smart DCC serviced, dumb, smart but not DCC serviced or without active communications).

If either of these approaches are taken, consequential changes to the D0155 in the Data Transfer Catalogue (DTC), would be needed. This would require a DTC Change Proposal (CP) to be raised and progressed through the Master Registration Agreement (MRA) Change Processes.

Smart Meter configuration

Under the Issue 53 proposed solution it is expected that on a CoS event, the new Supplier will re-configure the Meter to ensure that it aligns with the tariff requirements agreed between the customer and the new Supplier. As part of any re-configuration undertaken by the new Supplier, the Tariff Switching Table⁷ will be configured so it corresponds with the relevant Standard Settlement Configuration (SSC).

The Supplier may not need to re-configure the Meter in the event that the old Supplier's configuration meets the needs of the new Supplier. This would be indicated by the old Supplier's SSC as notified by Supplier Meter Registration System (SMRS). However the Group did note that more often than not the Supplier would likely re-configure the Meter regardless, to mitigate any risk that the old Supplier had not configured the Meter to match what they declared in the SSC (and other non-Settlement related configurable items, such as tariff rates, would need to be updated on a CoS). In addition if the Supplier always reconfigures the Meter, it would reduce the volume of requests the Supplier would send to the Meter via the DCC, marginally aiding efficiency. This is in contrast to sending a request to check the configuration, then having to send another request to reconfigure the smart Meter if the configuration does meet the new Suppliers needs.

Areas for consideration by a Modification Workgroup

A Modification Group may want to consider mandating that the New Supplier either:

- verifies the DCC serviced smart Meter configuration on a CoS event, by accessing the smart Meter through the DCC; and/or
- always re-configures the DCC serviced smart Meter on a CoS event.

Additional Data Items (e.g. Auxiliary Load Control Switches)

While this is an area that does not have a direct impact on the Issue 53 solution and the process of obtaining the CoS readings, the matter of additional data items, such as Auxiliary Load Control Switches (ALCS) was discussed.

The Group discussed how a new Supplier would know if a new customer has a switched load (such as for storage heaters) with the Group noting that a new Supplier would be able to gather this information from SMRS, providing the information was not out of date. It was also discussed whether information on this would be available to the new Supplier

⁷ A set of date and time-based switching rules for allocating half-hourly consumption to time of use registers.

via the DCC, and whether such information would be accessible prior to SSD, to prevent the Supplier reconfiguring the Meter and removing or changing switched load conditions.

Such information would be available to the Supplier, prior to SSD while they were a 'pending' Supplier. Such information would be read accessible via the ALCS calendar via the DCC through 'other user role' accessibility.

The Group discussed whether the Supplier would re-configure the ALCS calendar in a similar manner to the time of use registers on an SSD. With four options available:

- Supplier must re-configure;
- Supplier should not re-configure (to make sure that the customer's storage heaters continue to come on at the same time);
- Supplier can re-configure if they choose to do so; or
- Make no reference to the ALCS calendar in the BSC Procedures (BSCPs).

The Group were of the view that you would not need to add any requirements around the configuration of ALCS, and any such changes would primarily be driven by any work coming out of the Distribution Connection and Use of System Agreement (DCUSA).

This is one area that is still being discussed and considered as part of the smart rollout work led by the Department of Energy and Climate Change (DECC), at the Transitional Business Design Group (TBDG). The TBDG is looking at what additional information is available to users of the DCC. Further outcomes of discussions at the TBDG may need to be taken into account during any Modification Workgroup discussions when taking forward the Issue 53 solution.

The Group did not identify any other additional data items that would be needed for the CoS read process.

Other Configurable Data Items on the Meter

A smart Meter has a large number of configurable data items that sit outside of the data needed for a CoS read. These consist of items that are unlikely to change, e.g. Metering System Identifier (MSID) and Firmware version. Other items will change, e.g. Supplier contact details. These data items have no direct impact on Settlement and as a result no changes would be required to the BSC or BSCPs to capture changes to these configurable items.

In addition as there are no dependences between the old and new Supplier when it comes to re-configuring these other data items, this information would not need to be transferred between old and new agents when transferring the MTDs.

Meter Technical Details

The Issue 53 solution will mean that the CoS read process is not dependent on data (such as MTDs) being sent between agents. However the new Supplier's appointed NHHMOA will still need to prepare and send the MTDs through to the NHHDC, Supplier and Licenced Distribution System Operator (LDSO) via the D0149 'Notification of Mapping Details' and D0150 'Non Half-hourly Meter Technical Details' flows.

Under the approved CP1395 solution the elements that the new NHHMOA would use to construct the required D0149 and D0150 flows sent to the NHHDC, Supplier and LDSO will be split between two sources.

The new Supplier will send the configuration details to the NHHMOA following any reconfiguration of the smart Meter at SSD.

The old NHHMOA on a CoS event will still need to send the MTDs to the new NHHMOA as they do currently. This is because, in addition to the old Supplier's Meter configuration details (which will not always be required on CoS under the Issue 53 solution), the MTDs include other information such as Date of Meter Installation, Meter Asset Provider (MAP) Identifier and Meter Location. This information will not be available to the new Supplier from the DCC or the smart Meter, so still needs to be provided by the old NHHMOA. From these two sources of data, the new NHHMOA will then construct the necessary D0149 and D0150 flows to send, as under the CP1395 solution.

Validation and Estimated Annual Consumption

As noted previously the Issue 53 process removes the dependency of the CoS read process on the transfer of data between Supplier Agents. However the new NHHDC will still need an EAC for the purposes of (a) validation⁸, (b) calculating an AA/EAC once a second reading has been taken and (c) passing to the new NHHDA for use until an AA has been provided⁹. Under the current process the new NHHDC receives the EAC from the old NHHDC on a D0152 'Metering System EAC/AA History' flow.

There were split views amongst the Issue 53 Group on the appropriate method for sending this EAC. Some were supportive of using the D0052 'Affirmation of Metering System Settlement Details' flow, while others believed that the D0152 would be a better fit. Those supportive of using the D0052 agreed that the D0152 would still need to be used for the legacy (non-smart) process.

Areas for consideration by a Modification Workgroup

Any Issue 53 solution Modification Workgroup should consider whether the D0052 or the D0152 is the most appropriate flow for providing an EAC for the Issue 53 solution. In both cases the EAC effective from the SSD would be that provided in the D0052 or D0152. In the current process the new NHHDC calculates a new EAC using the D0152 EAC and an AA calculated using the CoS reading and the previous reading provided by the old NHHDC. This is in accordance with BSC Section S Annex S-2 4.3.13, hence the need for a Modification.

Implementation Approach

Consideration was given to the most appropriate way to implement the Issue 53 solution.

The Group discussed two approaches:

⁸ The NHHDC will continue to validate the actual readings obtained from the Meter against an EAC to check that actual consumption recorded aligns with the expected consumption indicated by the EAC.

⁹ Under the current process the new NHHDC also needs an EAC (and a reading) to calculate a deemed reading in the event that no actual reading is available. This will be a rare scenario for smart Meters and, where it does occur, the old NHHDC will deem the reading under the Issue 53 solution.

- A 'Big Bang' approach to implement the Issue 53 process concurrently with when the DCC becomes active (the 'Go-Live' date, currently expected to be in October 2015). It should be noted that DCC implementation may be staggered, if not all Suppliers are ready to use the DCC from the Initial Live Operation date; or
- A staggered approach whereby the Issue 53 process is implemented 3-6 months after the DCC system Go-Live. This would ensure that Suppliers can use the Issue 53 process, as a sufficient number would be expected to have registered and enrolled to use the DCC by then.

The Group's initial consideration of the positives and negatives of each approach can be seen in Section 5.

Areas for consideration by a Modification Workgroup

As per all Modifications the Group agreed that the most appropriate implementation approach would need to take into account the impact and lead times required to implement the changes.

The Group agreed that clarity would be needed on the exact point at which the DCC systems become available and when a sufficient number of Suppliers would be registered to use the DCC. This would enable the Modification Workgroup to consider whether a concurrent implementation close to when the DCC systems go live is an option or whether a staggered implementation would be more appropriate to allow sufficient time for Suppliers (who choose to use the DCC) to be registered.

Exception Management

The process steps set out above will apply when communications with the Meter are available. DCC Service Levels associated with the communications with smart Meters require 99.0% (minimum) to 99.9% (target) availability.

However the Group did discuss what would happen in the event of a problem accessing the Meter, such as a communications failure. In the event of a communications failure around a CoS event the Group felt the most appropriate solution would be to revert to legacy processes. They discussed leaving it to Supplier choice as to when they would revert to the legacy (non-smart) process of obtaining CoS Meter reads and how this would work.

If the communications to a smart Meter were to fail around the time of a CoS event, and the new Supplier could not access and reconfigure the Meter, the new Supplier would need to settle any energy consumption based on the old Supplier's SSC, and as a result would need the register mapping details for the old Supplier's SSC.

To do this the new Supplier would need to switch to the legacy process which the Group agreed could be achieved through the use of the D0155 with an appropriate flag (as highlighted under 'Agent Appointment Process').

The Group agreed that the point at which a Supplier instigates the legacy process should not be mandated, as long as the Supplier switches to the legacy process to allow sufficient time to process a CoS reading by eight Working Days (WDs) after the SSD (SSD+8WD).

In the event of the communications failure being resolved shortly after the legacy process being invoked, the Supplier would let the legacy process complete. The Group's reasoning

for this is that it would cause confusion to arise if a further D0155 was sent informing the NHHDC and NHHMOA to revert back to the smart CoS process half way through the legacy CoS process at that point.

If the communications with the smart Meter become available before SSD+8WD the new Supplier can make actual readings available to the new NHHDC for use within the legacy process. If communications become available between SSD+8WD and SSD+31WD, the legacy process CoS read can be replaced by actual reads from the Daily Read Log under the MRA disputed reads process.

The Issue 53 solution and 'opting in' and 'opting out' of the DCC

As noted under the scope of the Issue 53 solution, the Issue 53 process can currently only be applied to DCC serviced smart Meters where both the old and new Suppliers are registered to use the DCC and elect to use the DCC for that particular Metering System.

The process cannot currently be applied to the situation where the old Supplier is using the DCC for a particular Metering System and on a CoS that Meter switches to a Supplier that has either opted out of using the DCC entirely, or has chosen to not use the DCC for that particular Metering System. Similarly the Issue 53 process could not be used where the old Supplier is not DCC registered or has not used the DCC for a specific Metering System but on a CoS the new Supplier is DCC registered and wants to use the DCC for that specific Metering System.

The process of opting in and opting out of using the DCC is still under consideration by DECC. Depending on the final DCC processes, the Issue 53 solution may need to be amended at a later date to include these situations.

4 The Impacts of this solution

Below is an indication of the expected impacts of putting in place the Issue 53 solution:

BSC changes

BSC Section S Annex S-2 4.3.13 would require amendment, as the Annualised Advance and Estimated Annual Consumption rules make reference to the transfer of the EAC from the old NHHDC to new NHHDC and place an obligation on the new NHHDC to calculate a final AA and revised EAC.

Code Subsidiary Document changes

Changes to the following BSCPs will be required to capture the process steps and activities associated with the Issue 53 solution:

- BSCP504 'Non-Half Hourly Data Collection for SVA Metering Systems Registered in SMRS'
- BSCP514 'SVA Meter Operations for Metering Systems Registered in SMRS'

Impacts on other Code Subsidiary Documents (CSDs) may be identified during the Modification's Assessment.

System changes

There are no BSC Central System changes required to deliver the Issue 53 solution.

However Suppliers and Supplier Agents will need to amend internal processes and systems in order to follow the Issue 53 process.

Impacts on other Codes

While it is not envisaged that there should be any direct impacts of the Issue 53 solution on other Codes, changes to the DTC may be required. This would be to amend the D0155 flow to include appropriate notification options to advise agents (NHHDCs and NHHMOAs) whether a Meter is smart or not, so they know which process to follow (smart or legacy).

5 Issue Group's Discussions

This section captures the Issue Group's discussions and any conclusions made during the discussion of Issue 53.

Areas to Consider

As outlined in Section 2, a number of areas to consider were included in the Ofgem open letter and Issue 53 form for discussion by the Issue 53 Group.

For each of these areas, an explanation of what it relates to is provided along with the Group's discussions and any conclusions. These discussions fed into the solution described in Section 3 where applicable. Any areas that sat outside of Issue 53 have been highlighted and may need to be considered if the Issue 53 solution is implemented.

1) Choreographing opening and closing CoS reads

This area of discussion was about ensuring that there was a logical order of events to enable the old and new Supplier to get a closing and opening CoS read.

As indicated in the response to the DECC questions (see below), the old and new Supplier would have access to the SSD midnight snapshot on the Daily Read Log on the SSD. This would mean that both Suppliers can access and use the same data on the CoS event.

As reflected in the Issue 53 solution the Group has concluded that there should be no issues around the choreography of opening and closing reads.

2) Preventing double-billing / under-billing

As the old and new Supplier will be retrieving closing and opening reads from the same Daily Read Log on SSD, there should not be any risk of over-billing as there will be a clear end point for the old Supplier and starting point for the new Supplier.

There may be issues around under-billing though, in the event of a communications failure. The degree of under-billing is mitigated by the Daily Read Log. However, the Daily Read Log contains a rolling 31 days' worth of snapshots taken every 24 hours at midnight. So if there was a communications failure of less than 24 hours, the amount of energy consumed in that time would be difficult to measure and bill accurately. This is because the new Supplier may not be able to put a new time of use tariff onto the Meter until part way through the day. Settlement doesn't support two SSCs within a single Settlement Day, so it may be difficult to account for the energy consumed between midnight and the point at which the communications became available again.

A Group member commented that such a gap in the metered consumption may not have a significant impact on Settlement if it is in the region of a few minutes to a few hours, but could be a risk if it was closer to a full day. The Settlement Risk could then be multiplied by several thousand Meters, if a large scale communications failure were to occur, leading to a potential significant impact on the accuracy of Settlement, along with wider impacts on customers where these costs are smeared across the customer base.

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A number of Group members agreed that some analysis should be done to get an indication of the potential impact on Settlement (for guidance purposes) in the event of a large scale communications failure, of less than a day.

The analysis carried out is set out in the following table:

Profile Class 1-4 (metered only) (as at 12 Jan 2014 SF)	
Measure	Value
Annual Import	144,656,495 MWh
MSID count	29,687,583
Average annual import per MSID	4.87 MWh
Average daily import per MSID	0.013 MWh
Worst case (at £57/MWh)	£0.76
Average case (assuming half-day communications failure)	£0.38
Annual churn (at 15%)	4,453,137
Communication equipment failures (at 1%)	44,531
Co-incident failures at 1/365	122
At 38p a co-incident failure	£46.36

The Group discussed the analysis around the Settlement impact of Meter faults of less than a day. They noted that the impact of £46.36 is marginal and would be smeared across all Suppliers, and could be reasonably written off. ELEXON added that the value may be even smaller as the likelihood of a communications failure actually occurring on a CoS date may be even less.

A Group member expressed disappointment that with smart Meters you would need to smear the £46.36 via GSP Group correction. Other Group members commented that the energy would likely be accounted for once any communications failure was resolved.

Group members commented that existing mechanisms could be used to resolve problems. A Group member queried how a new Supplier could understand a Meter's SSC in the event of a communications failure prior to re-configuration. As noted above, the old Supplier's SSC would be needed. ELEXON commented that the SSC would be in SMRS and that the details of the configuration would stay in SMRS until it was updated with the new Supplier's re-configuration details.

In conclusion the risk of over-billing is mitigated through both Suppliers being able to access the SSD readings in the Daily Read Log. There may be a risk of under billing as a result of a communications failure, although there are methods available to mitigate the impact.

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3) Additional information (e.g. auxiliary load control switches)

This area to consider was focused on making sure the Supplier has all the information they need about the smart Meter.

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Although the Group considered that such additional information would not impact the CoS read process itself, access to additional information about ALCS was important to ensure continuity of service for the customer.

The Group noted that discussions on access by the new Supplier to additional information (such as ALCSs) is being considered by DECC's TBDG. Ofgem urged Suppliers to check their requirements for information to support CoS against the relevant TBDG design notes, and to feed in any thoughts to TBDG as appropriate.

Most information will be available either through the self-service interface or the DCC 'User Gateway'. Although Suppliers won't have access to update the smart Meter prior to SSD, DECC has confirmed that pending Suppliers will have access to information including the ALCS calendar. Suppliers can do this by using the same 'Other User' functionality that is available to switching companies and third-party energy management companies.

The Group agreed that, whilst access to ALCS information had important continuity of service implications for consumers with switched loads, this is a matter outside of the Issue 53 solution.

4) Access to information required post-CoS

It was noted that the new MOA will be provided with any the Meter configuration details by the Supplier. Other asset/device details (such as Meter Location, MAP ID and test dates) would still need to be provided by the old MOA as requested by the new MOA.

The Group discussed how the old MOA would have to provide the old Meter configuration data even if it wasn't used, as the current flow formats do not allow asset/device details to be sent without configuration details. These old configuration details could easily be ignored by the new MOA if the new Supplier had re-configured the Meter. It would also mean that the new MOA would have the old Supplier's configuration data in the event that a problem, such as a communications failure, occurred that prevented the new Supplier from executing a re-configuration. The old Supplier's Meter configuration data would then be used to interpret any reads post-SSD correctly.

The Group also discussed additional data associated with a CoS event and whether the new NHHDC would need an EAC. The Group discussed how an EAC would be needed for validation purposes, to calculate an AA/EAC once a second reading has been taken, and to pass on to the NHHDA.

The Group then discussed how you would go about getting the EAC, with four routes identified:

- D0152;
- D0052;
- Class average EAC; or
- NHHDA defaults until an actual reading is available.

The positives and negatives identified and considered by the Group, for each of the four approaches are set out in the following table:

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Access to information required post-CoS		
EAC approach	Positive	Negative
D0152	<p>Consistency with process for traditional Meters</p> <p>EAC more accurate than Class Average EAC (metering system specific).</p> <p>Not required for CoS reading so failure to send or process D0152 will have less impact on customer.</p>	<p>Risk that EAC on D0152 from old NHHDC is inconsistent with EAC from Supplier on D0052.</p> <p>Old Supplier's EAC may not be for the registers that the new NHHDC needs, if the Supplier has reconfigured the Meter (amended SSC).</p> <p>Retains data dependencies between old and new NHHDCs.</p>
NHHDC uses EAC in D0052	<p>Removes the need for the D0152 (and D0010 because read is no longer needed).</p> <p>D0052 will be needed regardless, to provide the SSC for new Meter configuration (therefore better candidate than D0152).</p> <p>Removes the risk that the EAC on the D0152 from the old NHHDC is inconsistent with EAC from Supplier on D0052.</p>	<p>Where there is no change of Meter configuration, the EAC will be less accurate than the historic EAC on the D0152 (EAC should be replaced quickly though due to the availability of reading from the smart Meter).</p>
New NHHDC uses class average EAC	None	<p>No major benefit over D0052 as new NHHDC needs the SSC and Profile Class (on D0052) in order to look up a Class Average EAC</p> <p>Potential changes to NHHDC systems to load a Class Average EAC values from Market Domain Data (MDD).</p> <p>Where no change of configuration, the EAC will be less accurate than the historic EAC on the D0152.</p>
NHHDA defaults	<p>No changes to NHHDC systems to load Class Average EAC values from MDD (although some relaxation of performance standards for not settling on a default EAC would be needed).</p>	<p>No major benefit over D0052 as new NHHDC needs the SSC and Profile Class (on the D0052) in order to process AA/EACs.</p> <p>The Default EAC will be less accurate than the historic EAC on the D0152 or the initial EAC on the D0052.</p>

The Group agreed that, as is currently the case, the D0152 would be used for the legacy process. The Group also discussed that the D0052 and D0152 could be used under the Issue 53 process. Some members had a preference for the D0052 to be used under the Issue 53 process, while others expressed the view that, for consistency between the smart and legacy process, the D0152 should be usable under both processes. A Group member commented though that under the Issue 53 process, some of the content of the D0152 would be redundant and would retain the data dependencies between old and new NHHDCs, which is what the Issue 53 solution is trying to remove.

The Group was unable to reach a clear consensus on which D-flow should be used, noting though that the D0052 would remove another dependency between old and new agents.

5) Exception management (e.g. Meter faults, Meter communication problems)

The Issue 53 Group discussed the necessary exception management mechanism in the event of a problem such as a communications failure with the smart Meter. The Group noted that the likelihood of a communications failure is quite low, with the DCC having a Service level of 99.9% target and a minimum of 99.0%. However, appropriate exception mechanisms are required in the event of a problem regardless of the likelihood.

The Group agreed that the simplest approach would be to revert back to the legacy (non-smart) processes. It discussed how the switch from the smart process to the 'legacy' process would occur. The Group considered that the D0170 could be used. However, as noted in Section 3 and under 'area to consider' 8, a more appropriate means to switch processes would be through the use of the D0155, which would notify the agents of the type of Meter when they are appointed, and as a consequence what process they would need to follow. This would be an effective method providing the D0155 was amended to make use of an existing field or the creation of a new field to make it clear to the agent what type of Meter they were being appointed to.

In the event of a communications failure there may be a degree of the old Supplier and new Supplier relying on each other if it was occurring during a CoS event, however this is the same as the current non-smart CoS process. The Group agreed that reverting to the 'legacy' process is the cleanest approach as any other approach involving new processes could be confusing or could add additional complexity.

A Group member commented that in the event of a long term communications failure the Supplier could also ask the customer to provide a read over the phone.

The Group discussed the impact of a long term communications failure on changes to the SSC. A Supplier wouldn't receive confirmation from the Meter that the SSC has changed until the communications were back up. Until the Supplier received such confirmation the assumption would be that the old Meter configuration was still applied and as a result the old Meter configuration details provided by the old NHH MOA via the D0150 would need to be used to interpret the readings on the Meter.

A Group member questioned what would happen if the communications failure happened after the command to change SSC was sent. It has been clarified by DECC that any requests sent would have a response, meaning that if a command was sent and could not be processed an exception code would be received by the Supplier. This would then indicate to the Supplier that there is a problem.

The Group was then asked at what point a Supplier would instigate the switch from the smart process to the legacy process. Suggestions were made that SSD+4WD would be an appropriate point as it would still allow time for a read to be obtained or a read to be deemed before SSD+8WD.

A Group member questioned what would happen if the smart Meter's communications returned after the switch to legacy. The Group considered whether you would switch back to the smart process and replace any deemed read with an actual read from the Meter. However to ensure process clarity the Group expressed views that you would only switch back once the CoS process was complete, but would make use of the actual reads available from the smart Meter that the Supplier would provide.

When discussing the timing of communication failures the Group generally agreed that one was unlikely to occur exactly on SSD, and would more likely occur before or after. On or just after SSD the choice to switch to legacy would be with the new Supplier. The new Supplier would then instigate the process by sending a (revised) D0155 to the new NHHDC. The new NHHDC would then send a D0170 to the old NHHDC to obtain the D0152 and D0010 as per the legacy process.

In the event of a communications failure the DCC would raise an incident. However the Group discussed that if the communications failure occurred before, but close to, a CoS, the old Supplier would only be kept informed of the progress of the incident. The incoming Supplier wouldn't necessarily know there was a problem until after SSD when any commands they pre-loaded failed to be applied. As noted in the DECC questions section below, the DCC will have an exception mechanism in place to notify users that there is a problem.

The Group concluded that it was cleaner to switch to the legacy process in the event of a communications failure, in order to get readings into Settlement by SSD+8WD.

6) Applicability of new processes to smart Meters not serviced by the DCC

As noted in Section 3, the Issue 53 Group agreed that the proposed Issue 53 process can currently only be applied to situations where the Metering System is being serviced by the DCC for both the old and new Suppliers. The process cannot currently be applied in the situations where the new Supplier is concurrently opting into or opting out of the DCC.

In the situation where the new Supplier chooses to opt-out of the DCC or not use the DCC for a particular Metering System they are taking on, at the same time as a CoS event, the old Supplier will not know. In this case some degree of co-ordination may be needed to ensure that the old Supplier takes a closing read as close to midnight as possible before SSD or the new Supplier takes the CoS readings and provides them to the old Supplier. In such situations the new Supplier may need to be obligated to notify the old Supplier they are opting out of using the DCC and/or send the old Supplier a closing read if they choose to opt-out of using the DCC.

As noted below under Outstanding Matters, this is an area that DECC is still looking at and the outcomes are not finalised. Therefore this may result in changes to the Issue 53 solution post-implementation once there is clarity over the opt-out process.

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7) Use for the D0311 flow to support the proposed process

The Group discussed the applicability of the D0311 'Notification of Old Supplier Information' to the Issue 53 solution. The Group discussed that the D0311 would not need to be used for the Issue 53 process from the perspective that it would not be used for transferring or agreeing CoS readings.

The reasoning for this is that the old and new Suppliers would be accessing the Meter separately via the DCC, so there would be no need for a D0311 to be used for transferring reads under the Issue 53 solution. While the D0311 would not be used for transferring CoS readings, it would still be used for customer verification.

In the event of a disputed CoS read, under the Issue 53 solution it would be between the customer and the old or new Supplier separately as there is no transfer of final CoS reads between the two Suppliers.

The Group did agree that consideration should be given to mandating the taking of a record of the total cumulative register on a CoS event in case of disputed reads, as the value used by the old and new Supplier should be the same as it would be taken from the same Daily Read Log on the new SSD. Additionally the D0311 could be used by the old Supplier to send the CoS read taken to the new Supplier to check the readings match. This would not be needed as part of the details of the Issue 53 solution, but could be used in the event of a disputed read.

8) Issues arising from the parallel running of smart and non-smart CoS processes

When discussing the parallel running of smart and non-smart processes Group members commented that it is important to know what process the Meter is in. A Group member flagged that the appointment flows would notify the Supplier Agents of what process the Meter is in, as these flows should indicate what type of Meter it is (smart or not/DCC serviced).

A Group member questioned whether the Issue 53 proposed process would benefit Automated Meter Reading (AMR) or dumb Meters. Another Group member commented that it would be difficult to apply the Issue 53 process to AMR Meters due to difficulties for the new Supplier in obtaining an opening reading close to midnight (e.g. because of issues transitioning the communications) and because not all AMR Meters are remotely configurable. It could not be applied to dumb Meters due to the need for both Suppliers to be able to obtain readings close to midnight on the CoS date.

Another question was raised around why there is a need to have different processes for smart and non-smart Meters when everything should be shifting over to smart anyway. The roll-out of smart Metering is taking place between 2015 and 2020, so there will always be a degree of parallel running of smart and non-smart processes if the Issue 53 solution is implemented prior to the end of the smart Meter roll-out. The only way to avoid parallel running would be to implement the Issue 53 solution only once the smart Meter roll-out was completed.

As noted previously, the Group considered changes to the D0155 to better indicate whether a Meter is smart or not, so they know what process to follow, i.e. the smart process if everything is working, or the legacy process if not.

A Group member questioned whether the necessary changes to the D-flow, if taken forward, could be progressed through the MRA in sufficient time to take effect at the same

time as the Issue 53 solution. ELEXON noted that parallel BSC and MRA changes have happened in the past and, where required, are co-ordinated and progressed in an appropriate manner so that any dependent changes all take effect at the same time.

This discussion prompted a question over whether you could hold off appointing a NHHDC until it is known whether the smart Meter is operating correctly (e.g. that there are no communication problems). Some Group members felt that it should be the Supplier's choice as to when to appoint Supplier Agents, and by doing the appointment after SSD it would enable the Supplier to know whether the Meter is smart or not. The Supplier could then indicate in the appointment flow what process (smart or legacy) will apply.

ELEXON commented that, if approved, [CP1405 'Facilitating Faster Switching in the NHH Market'](#)¹⁰ would change the requirements for NHHDC appointments to "as required" (in place of the current by SSD requirement). The MOA appointment timescale is unchanged and will remain "as required". This approach allows for agents to be appointed when the Supplier chooses to. Once the process is initiated the steps have to be completed in a set amount of time, but it is the Supplier's choice as to when they would initiate the process.

The Group also discussed how agents would know if a Meter was smart or not and what process to follow on a CoS event in the event of a communications failure. In practice a Supplier is likely to appoint the NHHDC and NHHMOA to a smart Meter via the D0155. In the event of a communications failure the Supplier would then have to send a second D0155 to notify that communications were unavailable. Once that happens the legacy process would be followed and allowed to complete, as any reverting back to the smart CoS read process part the way through completion of the legacy process would cause unnecessary confusion. If the communications became available again part way through the legacy CoS read process the new Supplier would be able to feed actual reading(s) from the Daily Read Log to the NHHDC to use in the process.

As noted in the Section 3, the Issue 53 Group concluded that parallel running of non-smart and smart processes will occur, and as long as it is clear what processes need to follow there should not be any issues. However the Group did conclude that consideration should be given around how best to notify agents of what processes to follow through potential changes to the D0155.

9) Implementation timescales

The Group discussed the best way to implement the proposed Issue 53 process. To aid this discussion a Group member highlighted that the DCC 'Go-Live' is due for 1 October 2015. This Go Live date may not be precisely when Suppliers will register to use the DCC however, which may happen after this point when the DCC systems are up and running.

The Group discussed whether the Issue 53 solution should be implemented at the same time as DCC Go-Live or whether the solution should be rolled out in a staggered way (e.g. a few months after DCC Go-Live such as part of later scheduled BSC Release).

Due to the different implementation approaches that can be taken and the differing views amongst the Issue 53 Group for the positives and negatives of each approach identified are set out in the following table:

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¹⁰ CP1405 has since been approved by the Supplier Volume Allocation group (SVG) for implementation on 6 November 2014.

Implementation Approach		
Impl. Approach	Positives	Negatives
Parallel with DCC 'Go-Live' (expected in October 2015)	<p>Concurrent implementation. One lot of changes ('big bang' approach).</p> <p>Realises benefits of Issue 53 process as soon as it is usable.</p>	<p>Higher risk (more changes at the same time).</p> <p>Additional cost on top of DCC 'Go-Live' specific system changes among Suppliers who are going to use the DCC.</p>
Staggered implementation after DCC 'Go-live' (e.g. as part of February 2016 Release 5 months later, or later still)	<p>Less change and risk of having a lot of changes at DCC go-live.</p> <p>Allows DCC to bed in.</p>	<p>Period where Issue 53 process is not in place.</p> <p>Cost associated with making the existing processes work in the interim.</p> <p>Delays realisation of the potential benefits of the issue 53 process.</p>

A Group member questioned whether all Suppliers would be able to use the DCC from Go-Live, prompting some hesitancy over a parallel implementation. The reason being that if an old Supplier is ready to use DCC on or shortly after Go-Live and the new one isn't, the Issue 53 process couldn't be used, leading the Group to consider that a staggered implementation approach may be more appropriate. This would mean that the Issue 53 process took effect at a point when a larger number of Suppliers would be using the DCC post 'Go-Live'.

A Group member queried the 'cost associated with making the existing processes (as modified by CP1395) work in the interim'. ELEXON clarified that if there was a staggered approach there would be phases of process. The existing legacy/dumb process, followed by the legacy/dumb process with the addition of the DCC interfaces (as introduced by CP1395), then the Issue 53 process. Cost would likely be associated with operating the second phase in addition to the costs of putting the Issue 53 process in place.

The Group's conclusion was that it was difficult to indicate a preferred implementation approach due to the different positives and negatives associated with each approach. It was noted that the appropriate implementation approach does not need to be decided on until the necessary Modification is raised to take the Issue 53 solution forward. The appropriate implementation approach would then be discussed by the Modification Workgroup and consulted on during progression of the Modification.

Questions raised with DECC

Throughout the Issue 53 Group discussions a number of questions were raised about the operation of the DCC and what can be done to DCC service smart Meters via the DCC. The responses to these questions helped the Group to refine the Issue 53 solution. These questions and the responses are summarised below:

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Questions to DECC	
Issue 53 Group Question	DECC response
Does re-configuring the time of use registers on a smart Meter automatically set the registers to zero?	The time of use registers along with the total cumulative register cannot be reset to zero.
What are the restrictions on the old Supplier's access to the Daily Read Logs and the Time of Access on a CoS date?	<p>On a CoS event both the old and new Supplier will be able to access the midnight readings for the SSD in the Daily Read Log.</p> <p>The old Supplier will have access to all readings in the Daily Read Log for the dates that they were the registered Supplier and will continue to be able to access these readings after the SSD for as long as they are available in the log (which is a rolling 31-day buffer).</p> <p>The new Supplier would only have access to the Daily Read Logs for dates post SSD.</p> <p>Any new Supplier Meter reconfiguration would apply post-midnight on the new SSD, once the Meter Security Credentials have been updated enabling the new Supplier to make changes.</p>
Does the Supplier receive all reads in the Daily Read Log?	The Daily Read Log will contain cumulative consumption against each time of use register and the total cumulative register at midnight when the Daily Read Log is updated.
How close to midnight are the old and new Supplier able to time their CoS related commands?	<p>Both the old and new Supplier will have access to all entries in the Daily Read Log that they are allowed to view, for as long as those entries are stored in the log (i.e. 31 days).</p> <p>A new Supplier can stack up any commands they want to apply to a smart Meter in advance of SSD if they so choose. As soon as the Security Credentials for the Meter are updated on SSD the commands will be applied.</p>
How will the DCC coordinate commands sent by the old and new Supplier in relation to a CoS event to ensure they are applied correctly?	<p>A Supplier is responsible for and dictates the order of commands sent to the Meter.</p> <p>The commands are then applied in the order requested by the Supplier.</p> <p>The time taken for a request to be sent by the Supplier and the confirmation that it has been applied will be of the order of 30 seconds.</p>
Does the old Supplier need to give permission to the DCC before the security credentials are passed on to the new Supplier?	<p>There is no dependency on the old Supplier to give permission in terms of security credentials under the transitional CoS arrangements. The situation involves the DCC (relevant to the Issue 53 solution).</p> <p>Under the enduring CoS arrangements the old Supplier will need to undertake a Security Credentials transaction to place the new Suppliers credentials in the relevant slots in the smart Meter (no DCC involvement).</p>

Questions to DECC	
Issue 53 Group Question	DECC response
Do commands sent by the new Supplier to the DCC need to be sent 24 hours in advance of SSD?	There is no requirement to send requests 24 hours in advance of SSD. Requests sent to the DCC can be sent on an ad-hoc basis when the Supplier chooses to do so.
Does the Daily Read Log contain snap shots of total cumulative consumption against each time of use register or only consumption from the previous snap shot (i.e. the past 24 hours worth of consumption).	The snap shot contains a view of the register reading at that point in time.
What information does the DCC provide Suppliers in the event of a communications failure?	<p>The DCC Service Management will report via the Self Service Interface (SSI) on known issues with Meters so that service users can be aware of communications problems and how they are resolved.</p> <p>All Service Requests have an associated response. If a communications failure were to occur, preventing the execution of a request, a response will be provided with an appropriate error code.</p> <p>The old Supplier would receive an error code if they sent a request. If they did not proactively send a request they would not know if a communications failure had occurred.</p> <p>Other than through SMRS the only way the old Supplier would know that a CoS event had occurred during a communications failure would be an alert informing them that their security credentials had changed, once the communications were back up again.</p> <p>Instances of communication failures should be low as there is a 99.9% target and 99.0% minimum Service Level target for the availability of communications.</p>

Impact on Settlement

While not specifically set out in the Issue 53 form and the open letter issued by Ofgem, the Issue Group considered whether the solution proposed would have a positive or negative impact on the accuracy of Settlement.

Due to the availability of actual metering data via the DCC, the expectation is that the accuracy of Settlement data would increase as more data will be based on actual consumption rather than estimates and customer provided reads. Also the removal of the need to transfer data between the old and new NHHDCs should enable consumption data to pass into Settlement more quickly as the new NHHDC will not need to await data from the old NHHDC, aiding Settlement accuracy.

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As noted below, consideration will need to be given to how best to provide process and performance assurance around the Issue 53 solution once implemented to ensure that the new processes are followed and the benefits of the changes fully realised.

Potential Alternative Approaches

When discussing the Issue 53 proposed solution the Group discussed whether there were any alternative approaches.

A Group member suggested that consideration should be given to other solutions around ensuring that the data needed on CoS is easily accessible, such as via a central database similar to the Electricity Central Online Enquiry Service (ECOES).

Ofgem highlighted that a central database has been considered, but the likely cost of such a solution for the new Supplier hub to obtain data for smart Meters made it less attractive than a solution whereby the new Supplier was not reliant on such data. Further consideration is being given to a central database for AMR and legacy Meters and would be picked up via a COSEG consultation due to be issued in Spring 2014.

A couple of Group members raised reservations around any such central database, highlighting that there is a risk the data is not kept up to date, and highlighted similar problems with existing databases.

A Group member questioned access to data on similar existing databases, with other Group members commenting that there are security restrictions around access which may be difficult to manage and may add unnecessary complexity when it comes to managing who should have access to what information.

Other Group members questioned the relevance of a central database for Issue 53, and that it may be a longer term solution to a different question.

A Group member questioned whether it was worth doing a cost-benefit analysis of creating such a database. The central database used in the gas markets could be used as a guide on format and structure. Another Group member responded by saying that a central database could be expensive and it wouldn't be creating anything new, just using existing processes and systems that already exist or are being built. They also questioned the benefits it would provide to the customer.

ELEXON added that the Issue 53 solution removes dependencies on NHHMOA to NHHMOA transfers of Meter Technical Details (MTDs) and NHHDC to NHHDC transfers of Meter read history in order to carry out a CoS and obtain the necessary opening and closing reads more efficiently. Any such database would be a longer term solution that could be considered down the line, but wouldn't necessarily help with what Issue 53 is aiming to do. In addition, existing databases rely on agents updating the data contained within them, and there are issues over the accuracy of the data contained within them, with one Group member suggesting that the data contained in existing databases have a much less than 100% accuracy rate.

Therefore the Group concluded that while such central databases may be something to consider in the future, it is not something that should be considered as part of or in parallel with the further progression of the Issue 53 solution.

No other potential alternatives solutions were highlighted by Group members.

Outstanding matters

Any areas discussed that are either related to or are separate from the Issue 53 solution and the solution proposed are captured below. The areas that are related to Issue 53, are those that will need to be considered as a consequence of introducing the Issue 53 proposed solution to the BSC.

Performance Assurance

As a result of putting in place the Issue 53 solution, existing Settlement Risks may need to be revised or new Settlement Risks created and captured on the Risk Evaluation Register (RER).

In addition consideration may need to be given by the Performance Assurance Board (PAB) to apply appropriate Performance Assurance Techniques (PATs) to ensure that the processes and activities that the Issue 53 solution introduces are carried out. This may be achieved through a mixture of PATs, such as the BSC Audit, or specific Technical Assurance (TA) checks as appropriate.

Non Half Hourly Meter Operator Agent appointment

A Group member highlighted the requirements around appointing a NHHMOA. Under the agent appointment process the Supplier has flexibility over when they initiate the agent appointment process. However the Group member expressed a view that they would expect the new Supplier to appoint the NHHMOA as close to SSD as possible for safety purposes.

Opting in/opting out of the DCC

DECC is still undertaking work on the DCC opting in and DCC opting out processes, so the Issue 53 Group could not make any clear conclusions or recommendations. Depending on the outcomes of these DECC discussions, revisions to the Issue 53 process could be made (post implementation) to expand the process once the processes for opting in or out of the DCC are clarified and confirmed.

Disputed Read Process

The Group discussed the disputed read process in relation to the Issue 53 process. As the Issue 53 process would de-link the CoS read reliance between the new and old Supplier, through each Supplier taking its CoS read from the DCC serviced smart Meter separately, there would be fewer Supplier to Supplier disputed reads.

Disputed reads are managed under the MRA disputed read processes, and therefore sit outside of the Issue 53 solution and the BSC.

Customer confidence around CoS Meter reads

While the Group agreed that it was not a BSC matter or one related to the Issue 53 solution, the Group did discuss how the customer could have greater confidence in the information received from Suppliers in their bills. Improving customer confidence would



What is the Performance Assurance Board?

The PAB is appointed by, and reports to the BSC Panel. The PAB conducts and administers activities to provide assurance that all participants in the BSC arrangements are suitably qualified and that the relevant standards are maintained.



What is the Risk Evaluation Register?

The Risk Evaluation Register (RER) sets out the Settlement Risks identified and evaluated by the Performance Assurance Board (PAB) in accordance with the Risk Evaluation Methodology (REM). Settlement Risks relating to Supplier Volume Allocation, Central Volume Allocation and Central Systems processes fall under the scope of the RER.



What are Performance Assurance Techniques?

The Performance Assurance Framework (PAF) is a complementary set of preventive, detective, incentive and remedial assurance techniques. These techniques are used flexibly to address Settlement Risks.

The techniques must address both risks to Settlement and the impact of actual failures or errors in Settlement.

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help address and reduce concerns that they have not been under- or over-billed, and clearly kept informed about metering data used on a CoS event.

The Group discussed that there may be benefit in including a breakdown of each time of use register reading used, that has been included, in the customer's bills and how that corresponds to the customer's smart Meter. In addition customer bills (particularly on a CoS event) could include the total cumulative register reading. This would enable the customer to compare the opening and closing bills from their old and new Supplier to make sure they line up. The Group noted though that the total cumulative register isn't easily accessible by the customer on a smart Meter, so a clear explanation would need to be included in any bills, to aid customer understanding. More generally though, due to the volume of information available on smart Meter and on the In Home Display (IHD) linked to their smart Meter, Suppliers may need to provide explanations of what is available and how to access it.

In addition, to aid the customer experience on what they see on opening and closing bills, on their Meter and on their IHD, consideration may be needed to the development of metering configuration standards. This would enable a customer to know what each time of use register on their smart Meter is recording in relation to the electricity tariff they are on. However the feasibility of such metering configuration standards may rely on the final GB Companion Specification, as the content of this specification will affect how each time of use register can be labelled.

The Group agreed that transparency and clarity was the key to a good customer experience. The Group agreed that it was an area for Suppliers to consider and that the provision of guidance on what information to include in final and opening bills may be required. Ofgem suggested that the matter of clear customer billing and smart Meters could be considered by Energy UK¹¹.

Additional information (e.g. auxiliary load control switches)

As noted above DECC is still undertaking work on what additional information (such as ALCSs) is available via the DCC through the TBDG. While the Group agreed that access to ALCS information had important continuity of service implications for consumers with switched loads, this is a matter outside of the Issue 53 solution.

However Ofgem urged Suppliers to check their requirements for information to support a CoS against the relevant TBDG design notes, and to feed in any thoughts to the TBDG as appropriate.

¹¹ Energy UK is the trade association for the energy industry.



Conclusions

The Issue 53 Group concludes that a Modification Proposal is necessary to deliver the Issue 53 solution set out in Section 3.

Issue 53 Group's views on the solution

Throughout the Issue 53 Group's discussions there was general agreement that the proposed process would work and there was a need to change the CoS process to make full use of smart Meters. It was also noted that without change, the existing CoS read process will become considerably more complicated. This is because it will be much easier for Suppliers to reconfigure smart Meters on the SSD (for traditional Meters this would require a site visit). This in turn means that, under the current process, the new NHHDC would need the register mapping details for both the new Supplier's SSC and the old Supplier's SSC in order to determine both opening and closing readings.

For DCC serviced smart Meters the proposed solution would result in a simpler CoS read process by removing the dependencies between the old and new Supplier and their agents. It also removes the direct link between processing the CoS read and parts of the agent appointment process.

Matters that need further discussion

There are a number of areas that need to be considered further as part of any Modification Proposal to take forward the Issue 53 solution.

The Groups overall conclusions are summarised below:

- A Modification is required to take forward the Issue 53 proposed solution;
- The appropriate implementation approach needs to be considered so the Issue 53 solution (if approved) take affect at an appropriate time;
- Consideration is needed on what process steps need to be mandated (e.g. does Meter re-configuration on a CoS event need to be mandated); and
- Consideration is needed on what is the appropriate mechanism (via the D0155) to notify agents that a Meter is smart or not and therefore inform which CoS read process to follow (legacy or smart).

The areas related to the Issue 53 solution but not part of the solution itself are:

- Appropriate performance assurance to ensure the new processes are followed;
- Discussions at other groups and forums, the outcomes of which, while not preventing the Issue 53 solution being taken forward, may need to be taken into account during a Modification Workgroup's discussions if conclusions are reached (e.g. the discussions at the TBDG and other DECC discussions, such as those on DCC opting in and opting out processes); and
- Other industry Code changes, where the solutions discussed and developed may have an impact or could be mirrored in the BSC to aid cross Code co-ordination of processes.

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7 Recommendations

The Issue 53 Group invites the Panel to:

- **NOTE** the Issue Group's discussions and conclusions;
- **NOTE** that a Modification is required to make the necessary changes to deliver the Issue 53 solution; and
- **NOTE** that Issue 53 is now closed.

Appendix 1: Glossary

List of acronyms

The following table lists the different acronyms used throughout this report:

Acronyms	
Acronym	Definition
AA	Annualised Advance
ALCS	Auxiliary Load Control Switches
AMR	Automated Meter Reading
BSC	Balancing and Settlement Code
BSCP	Balancing and Settlement Code Procedure
COSEG	Change of Supplier Expert Group
CoS	Change of Supplier
DCC	Data Communications Company
DCUSA	Distribution Connection and Use of System Agreement
DECC	Department of Energy and Climate Change
DTC	Data Transfer Catalogue
EAC	Estimation of Annual Consumption
ECOES	Electricity Central Online Enquiry Service
IHD	In Home Display
LDSO	Licensed Distribution System Operator
MAP	Meter Asset Provider
MRA	Master Registration Agreement
MSID	Metering System Identifier
MTD	Meter Technical Details
NHH	Non Half Hourly
NHHDA	Non Half Hourly Data Aggregator
NHHDC	Non Half Hourly Data Collector
NHHMOA	Non Half Hourly Meter Operator Agent
PAB	Performance Assurance Board
PAF	Performance Assurance Framework
PAT	Performance Assurance Technique
SEC	Smart Energy Code
SMETS	Smart Metering Equipment Technical Specification
SMRS	Supplier Meter Registration Service
SSC	Standard Settlement Configuration
SSD	Supply Start Date

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Acronyms	
Acronym	Definition
SVG	Supplier Volume Allocation Group
TA	Technical Assurance
TBDG	Transitional Business Design Group

List of Data flows

The following table lists the various Data flows referenced throughout this report:

Data Flows	
D-flow	Name
D0010	Meter Reading
D0011	Agreement of Contractual Terms
D0052	Affirmation of Metering System Settlement Details
D0055	Registration of Supplier to Specified Metering Point
D0058	Notification of Termination of Supply Registration
D0086	Notification of Change of Supplier Readings
D0148	Notification of Change to Other Parties
D0149	Notification of Mapping Details
D0150	Non Half Hourly Meter Technical Details
D0151	Termination of Appointment or Contract by Supplier
D0152	Metering System EAC/AA History
D0153	Notification of Data Aggregator Appointment and Terms
D0155	Notification of Meter Operator or Data Collector Appointment and Terms
D0170	Request for Metering System Related Details
D0209	Instruction(s) to Non Half Hourly or Half Hourly Data Aggregator
D0217	Confirmation of the Registration of a Metering Point
D0260	Notification from MPAS of Old Supplier Registration Details
D0311	Notification of Old Supplier Information

Appendix 2: Issue Group Membership

Issue Group membership and attendance

Issue 53 Group Attendance				
Name	Organisation	15 Jan 14	10 Feb 14	24 Feb 14
David Kemp	ELEXON (<i>Chair</i>)	✓	✓	✓
David Barber	ELEXON (<i>Lead Analyst</i>)	✓	✓	✓
Jon Spence	ELEXON (<i>Design Authority</i>)	✓	✓	✓
Rachel Hay	Ofgem	✓	✓	✓
Andrew Wallace	Ofgem	✓	x	x
Paul Saker	EDF Energy (<i>Proposer</i>)	✓	✓	✓
Rachael Burn	E.on Energy	✓	✓	✓
Andy Baugh	npower	✓	✓	✓
Kevin Woollard	British Gas	x	☎	✓
Tabish Khan	British Gas	✓	x	x
Adam Carden	SSE	✓	x	x
Claire Hemmens	SSE	x	✓	✓
Tom Connolly	Scottish Power	✓	☎	x
Phil Russell	Utilita	✓	✓	✓
Gary Burrows	Opus Energy	✓	✓	✓
Mark Young	First Utility	☎	☎	x
Ally Brown	BES Utilities	✓	x	x
Andrew Humby	Utilisoft Ltd	✓	✓	✓
Martin Thomasson	Bglobal Metering	☎	x	x
Kathryn Dodgson	Bglobal Metering	☎	x	x
Seth Chapman	G4S	✓	✓	✓
Craig Tobin	Siemens	✓	x	x
Lindsey Whitbread	Siemens	✓	✓	x
Stephen Johnson	IMServ	✓	✓	x
Neil McKeown	C and C UK	☎	✓	x
Andy Knowles	Gemserv	✓	✓	x
Bethany Chubbock	Gemserv	✓	✓	✓
Paul Pettitt	Electralink	✓	✓	✓

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