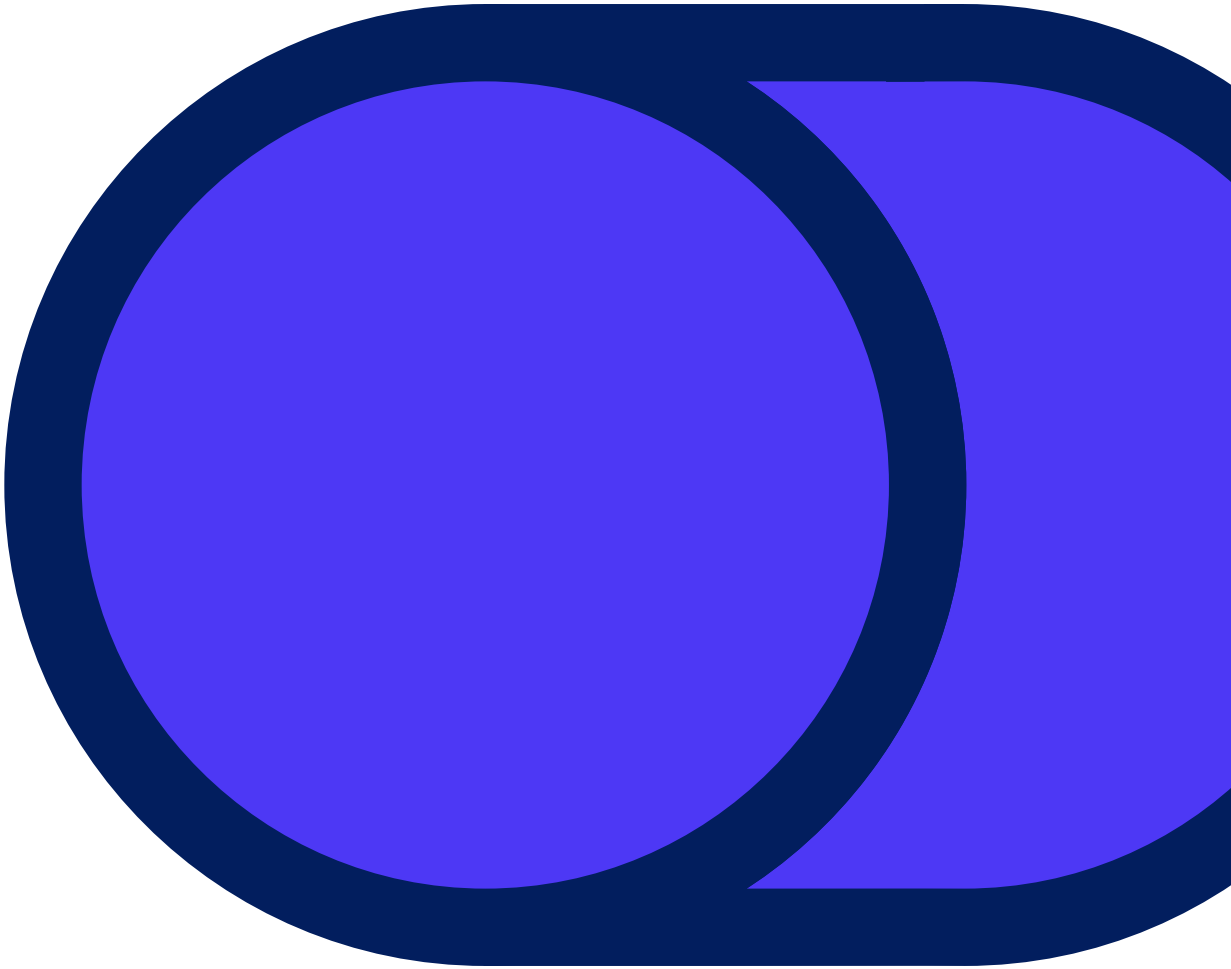
Appendix A

RECCo Major Switching Incident

Review Report - Detailed Report

Retail Energy Code Company

November 2023



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INCIDENT SUMMARY OVERVIEW

Incident Background Central Switching Services, Major Switch Incident "INC0216074".

Following a planned runbook, the first DCC[1] Business Continuity Disaster Recovery (BCDR) carried out its final activity on the 6th July 2023, a failover from one data location to another (UK West (UKW) to UK South (UKS)).

The Switching data due to complete processing that day, was not in the right place and could not be moved there at the end of day switching "Gate Closure". This issue caused the 6th July 2023 incident with the Central Switching Service (CSS)[2], impacting a combined 200,756 supply switch messages and new registration messages, for gas and electricity, domestic and non-domestic[3] end consumers.

Date 2023	Key Incident Activities	Detail
6th July	Central Switching Service Major Switch Incident identified and raised, mobilising their Major Incident Management, and sending formal DCC Major Switch Incident Communication (to nominated Switching parties).	A SDSP, and the DCC in their role as CSS Provider, both saw two anomalous outcomes, and collectively this confirmed an incident where Switches/new registrations queued at CSS Gate Closure 6th July, due to start in the next 28 days did not proceed.
7th July	RECCo & REC PAB notified	
11th July	DCC initial customer calls held	With DCC selected industry parties.
12th July	Wider stakeholder engagement commenced • Incident industry forum engagement started • Daily written updates increased to 3x/day.	Utilising the planned Switching Operator Industry/Issues Forum (SOIF). Set to daily, by impacted stakeholders request.

1 The Smart Data Communication Company (DCC); who is The Smart Meter Communication Licensee, and under the Retail Energy Code, the Switching Operator and CSS Service Provider

2 Operated by the Smart Data Communication Company (DCC), the Switching Operator and CSS Service Provider

3 We have used the term non-Domestic, but note it is also known as Industrial & Commercial.

Date 2023	Key Incident Activities	Detail
13th July	Initial impact communicated	Estimate of impacted switches & registrations, but confirmation unable to know until each of the 28-day Gate Closures had run. Potential for Suppliers, who could see their impacted accounts, to withdraw the 6th July future dated switches and submit anew. Untested, so unsure if would work.
13th July	Gas SDSP, Xoserve called a joint meeting with DCC.	To explore and discuss the incident and potential options for resolution with DCC.
14th July	Initial resolution options presented to stakeholders	DCC tested their first two options for industry consultation at the SOIF, options; 1. Cancellation (Withdrawal) of impacted switches (either centrally or by parties) 2. Issue Gate Closure messages that had not previously been delivered With key feedback from St Clements around the electricity Distribution Meter Point Registration System issues and impacts that would be experienced, if option 1 was applied.
17th July - 28th July	DCC development, sharing, and instigation of proposed technical resolution execution approach, principles, and reconciliation process.	Sharing the following approach for consultation & impact assessment. • 17th User Interface Testing (UIT) approach for Option 2 • 18th Data sharing approach • 21st Overall Activity plan shared. Then commencing technical resolution • w/c 17th carried out technical review of incident fix. • 24th mobilised test stream execution, central & industry support teams – commenced UIT • 28th complete UIT
2nd - 8th August	Data rectification plan execution.	Commenced and completed - CSS processed remaining impacted switches/registrations
11th August - 8th September	Post Implementation data reconciliation.	Commenced and completed – verifying and reconciliation by/against; • Xoserve/Corella – CDSP • St Clements – MPRS • Landmark – CSS

Date 2023	Key Incident Activities	Detail
8th September	Post-Incident Report Summary	Submitted to RECCo
12th September	Incident Closed	Formal DCC Incident Management notice sent to nominated stakeholders updating the status.
6th October	Detailed post-incident Review Report	Submitted to RECCo

How the Incident Was Managed

Throughout the report we talk in detail about how the incident was managed by both RECCo and the DCC, based on our analysis, our view, and the views and experiences shared by the impacted stakeholders; what worked well, what might work better, what didn't work and what seemed to be missing.

Incident Resolution & Closure

DCC developed and implemented a plan, and through a series of batch updates, incrementally ensured impacted switches and registrations were processed by CSS, to the original intended dates, for an accurate reflection in CSS by 8th August 2023, 33 days after the original incident. Following this a period of data verification and reconciliation was carried out by key DCC, REC Parties and Switching Data Service Providers (SDSP), running up to 8th September, to ensure that parties, central energy enquiry and network systems accurately reflected the CSS processed switches, 64 days after the original incident.

DCC, in its role as the Switching Operator, formally closed the Major Switch Incident (CSS Priority 1) on 12th September 2023. Issuing, both a Post-Incident Report Summary to the REC Code Manager on 8th September 2023, and a more detailed post-incident review on 6th October 2023, allowing publication to the REC Performance Assurance Board (PAB), and the wider industry via the REC Portal[4]. These incident reports are independent of RECCo's own review set out in this report.

Root Cause

DCC finally confirmed the incident root cause, in both its summary and full incident review reports.

The underlying cause has been attributed to an issue with load balancing due to a spike in Central Processing Unit (CPU) usage and Transactions Per Second (TPS) which contributed to a lag with Geo-replication across the regions. The load balancer was prioritising live traffic rather than the replication between regions.

When the Business Continuity Disaster Recovery (BCDR) came to failback the Storage and Application Accounts from the UK West (UKW) region back to the Primary UK South (UKS), replication had not completed to UKS before the failback was initiated. This caused current and future dated switches to remain unprocessed at Gate Closure.

This was incrementally communicated as the event progressed, and further within our report we include more detail of our opinion (and that of respondent stakeholder) of its visibility, language accessibility, and completeness.

4 The DCC Major Incident Summary Report v1.0, and DCC Major Incident Review Report v2.0, can be found on the REC Portal – here

Impacts

The impacted switches or new registrations, queued at CSS Gate Closure 6th July (awaiting their final confirmation of completion to be sent from CSS to gaining/losing suppliers, and other industry parties (i.e., central enquiry services, the ERDA and GRDA/CDSP)), were not sent for the next 28 days. These switches did not complete on the agreed date, meaning that the end consumer was effectively still with their previous supplier, and were blocked from switching again, until the incident was fixed[5] .

In the upcoming report sections, we set out the impacts and experiences of those impacted by the incident. The key impacts were;

1. Consumer confusion around; whether their agreed switch had proceeded, who they should contact about any issues they were experiencing – including topping up their prepayment meter, billing or opening/closing meter readings, and what they could do (i.e., were they blocked from switching until the incident was resolved).

2. Suppliers felt hampered and ill informed, affecting what they could do to help their end consumers (their [ability to meet their overarching licence requirements to "treat customers fairly"), due to the length of the incident, and its impact on the timing, quality, and completeness of the information available to them, including the proposed resolution. Resulting in resource, time, and finance costs to support, and the potential for reputational damage.

3. Other impacted industry parties, (like the SDSPs (Xoserve), the central enquiry services, Shippers, Gas Transporters, and Distributors) needed to deploy resource for the solution assessment, data verification, and preparations to carry out resolution activity, understanding the key need to ensure the wider Switching landscape systems, data and processes, accurately reflected the Switch data processed in CSS. Resulting in resource, time, and financial costs to support.

4. Customer complaints – for some Suppliers; not just made directly to them, but also complaints made to Citizens Advice and/or the Energy Ombudsman.

5. Knock-on consequences – to the Market Stabilisation Charges (MSC), to reflect the final adjusted accurate CSS Switch/Registration data.

One Supplier noted;

"Fortunately, the incident did not coincide with a major renewal round (1st April or 1st October). However, had the disaster recovery taken place on the originally proposed date it would have had far more severe repercussions. It is also the case that the switching rates have to date been relatively low but with the market retreating from historic high prices we could be seeing an upswing in switching and the robustness of the system to manage these volumes needs to be assured."

Methodology

Our objective: to consider the efficiency and effectiveness of the incident management response, by RECCo, DCC, and impacted SDSPs, following the code and existing Major Switch Incident Management policies, procedures/ processes.

Our aim: shape a clear, comprehensive set of findings, to provide direction and inform review proposed recommendations, remedial actions, or risk mitigations. Including accompanying identified changes and improvements (e.g., processes, operational improvements, frameworks) proposed, to ensure clear and appropriate action is taken to prepare for the right response to any future incidents.

Our approach: collection and logging, review, analysis, and assessment of;

5 Or on a new date, if their Supplier cancelled the incident switch and submitted a new one.

1. Code Compliance and Performance:

   Analysis of available data to assess the regulatory impact, compliant performance. Shaping the assessed findings into incident management and engagement themes, to assist the development of our assessment, findings, and recommendations into one review report.

2. Internal REC & Impacted stakeholder Insights from Lessons Learned and Impacts:

   Assessment of a mixture of quantitative, qualitative information, and insights to develop a reflective understanding of their incident experience, lessons learned, and impacts (end consumer, business, or in meeting other obligations). Drawn from response to our invite for both written and verbal feedback, received from a range of impacted stakeholders.

   Namely, 7 Supplier responses[6] to our September survey (5 I&C, 1 Domestic, & 1 combined I&C/Domestic), and over 300 pieces of feedback, gathered from 30+ individuals, responding on behalf of a range of 18 organisations[7]. From individual sessions with each impacted Switching Data Service Provider (SDSP) organisation[8], and Energy UK (EUK) representing their gas and electricity, domestic and non-domestic member Suppliers. To group sessions with 1) the Energy Networks Association (ENA) and their member large/independent) Distributors and Gas Transporters, 2) the Industrial & Commercial Suppliers & Shippers (ICoSS) and 8 member Suppliers, and 3) Tim Hipperson who had gathered feedback from a selection of Third Party Intermediaries (TPIs) and Brokers.

Our findings: through the upcoming review report sections we bring these assessments together, asking ourselves for each; what happened, what was done, what was the issue, what needs to change to mitigate the risk of a reoccurrence, if it does happen again how can we assure it will be better managed. We deliver considered performance against existing Retail Energy Code (REC, 'the Code') requirements, existing policies, observations, and conclusions against three main themes;

1. Compliance – incident management, including delivery of a technical resolution.

2. Commercial - the impact of this incident, covering those to end consumers, to impacted business, or on licence or code compliance.

3. Communication – engagement and communication strategy, approach, and execution.

To aid the reader, at the start of each theme chapters, we set out the requirements[9] considered when we performed our analysis, to better understand the findings we set out.

Our recommendations: in addition to the overarching recommendations made in the executive summary, we conclude each themed section with detailed recommendations; where parties may need to review/refresh their existing policies, procedures, processes, where requirements might be strengthened, where we need to introduce new/additional code requirements or where new policies or approaches need to be considered.

6 Written feedback from a selection of 7 energy Suppliers 5 Industrial & Commercial (I&C), 1 Domestic and 1 combined Domestic & I&C.

7 Representing; ICoSS, SEFE, Total, SSE (Supply), Enigys. Love Energy – via Tim Hipperson, xoserve, ENA, NGED, BUUK, SGN, W&W Utilities, SSE (Distribution), Uk Power Networks, xoserve, C&C, St Clements, EUK Members (no break down available, as combined response).

8 Including Switching Data Service Providers (SDSPs); the CSS Provider, the Gas Retail Data Agent (GRDA), the Electricity Retail Data Agent (ERDA), and the Enquiry Service Providers (EES and GES), Suppliers (Electricity & Gas, Domestic & Non-Domestic), Distributors.

9 Requirements set out in existing Switching/REC policies, REC requirements, and, on occasion, the overarching REC licence requirements.

INCIDENT MANAGEMENT - TECHNICAL SOLUTION

To structure the technical solution assessment, we have split our analysis into four areas:

- Preventing missing messages;
- Detecting missed messages;
- The technical response; and
- Confidence in managing technical incidents – that includes observations relevant to this incident, but of a wider nature.

PREVENTING MISSING MESSAGES

REC REQUIREMENTS

Description

We understand that the cause of INC0216074 was geo replication, which is a process where the of copying data is from one location to another location in a different geographic area.

The DCC in their role as CSS Provider initiated geo replication as part of a Business Continuity Test scheduled to run from 4th to 11th June. This test was partially completed, as some data took much longer to move locations than anticipated. When this occurred the geo replication was cancelled, and the data and processing was then transferred back to the original location.

On 26th June 2023, the DCC provided the following information in its update to SOIF *'Geo-replication for one (of four) Storage Accounts back to UKS did not complete before 08:30 on 11th June, preventing a full restoration of UKS as the primary region. Case raised with Microsoft but with service not impacted, there were limited options for escalation and no visibility of progress provided.'*

Following this, some data needed to return to its original UKS location. This meant that the CSS system would need to process both the return of this data as well as the business-as-usual messages. The DCC identified in its Major Incident Report that *'an issue with load balancing due to a spike in Central Processing Unit (CPU) usage and Transactions Per Second (TPS) which contributed to a lag with Geo-replication across the regions. The load balancer was prioritising live traffic rather than the replication between regions.'*

We have requested from the DCC details of the ticket raised in relation to missing data and have been provided details of the ticket raised by Xoserve. We interpret this to mean that the DCC was unaware that the data had not been restored to the UKS region.

DCC in their role as both the Switching Operator and CSS Provider are required to manage capacity to meet requirements and we would therefore expect that:

- The typical capacity levels are regularly monitored.
- This monitoring is increased during a BCDR event or test, or where there was unexpected behaviour, both of which occurred in this case.

Many CSS services were operating as expected, and resumed normal operations within an hour. However, we interpret resuming to normal operations as not just processing new messages but resolving any affected messages.

Conclusion

1. Whilst the BCDR event was a test, it did result in the lack of availability of data (namely the 200,483 affected messages) for a long period of time.

2. The BCDR test did not complete within a recovery time of eight hours maximum, but instead took until the data was rectified on the 4th August, 54 days later. These breach the requirements of the CSS Service Definition, whether it is identified as an unplanned outage or BCDR event.

3. CSS capacity was not varied dynamically to meet the capacity requirements, as the lack of load balancing resources demonstrates. Given that the cause of this was the BCDR test, we do not consider that this was reasonably foreseeable by the DCC, but does represent a failure of the DCC to resume normal operations in one hour, to meet its recovery time objectives and its responsibilities to monitor and dynamically vary resources. These are critical areas of Code compliance.

Ref.	Theme	Area	Recommendation
T001	Compliance /Technical Solution	Preventing Missing Messages	The DCC in its role as CSS Provider, should complete a review of capacity and demand management, to identify how capacity logs are handled, and how this adapts to external events (e.g., BCDR, upticks in switching).
T002	Compliance /Technical Solution	Preventing Missing Messages	The DCC's Major Switching Incident Management policy, in its role as the Switching Operator, should be updated to include a post conclusion monitoring phase which involves confirming all data has been appropriately handled and directly monitors infrastructure.

DETECTING MISSED MESSAGES

REC REQUIREMENTS

Description

DCC's Gate Closure started near 5:00pm on 6th July. Thursdays in the previous month had taken around 22 minutes to complete, typical of most weekdays. Gate Closure can complete in around 2 minutes on Saturdays, but weekdays were completed in Q1 between 3 and 51 minutes.

Gate Closure on the day of the incident completed in 53 seconds, indicating an issue. However, the DCC in their role as CSS Provider did not raise an incident until Xoserve raised an incident relating to missing messages at 6:29pm. This incident was raised to a Priority 1 classification, by the DCC in its role as Switching Operator, at 7.28pm. The DCC in their role as CSS Provider has informed us they were aware of the issue, but raising an incident is a critical activity to track information on an event, as well as get the appropriate staff looking at key incidents.

At this point, the CSS Service Definition requires that the messages that should have been transferred should have been able to be identified, however the design of the Gate Closure system is such that DCC do not have a record either of total messages that should have been sent or the specific messages. This information is typically retained within system log files if the system has been configured to log relevant information.

The DCC shared with Suppliers details of the affected messages starting on 19th July. This covered messages that had been missed up to this point, sharing daily the affected switches that had been scheduled to be sent in that day's Gate Closure, but had had missing messages.

Whilst the DCC was able to detect the loss of market messages and share with Suppliers details of which switches were affected, the earliest this occurred was 13 days after the event. Rectification took place, but started on 2nd August, 27 days after the event. Given the expectation in the service definition that P1 incidents are resolved within 4 hours we do not consider that this meets the requirements to detect and rectify missing messages.

The lack of the ability to regenerate switching messages or access information on future dated switches, was not wholly within the CSS Provider's control, as it was a consequence of design decisions by the Switching Programme. However, the Code requirement to detect loss is clear, and this incident has made the CSS Provider aware of this gap. The CSS Provider should take action to bring itself back into compliance.

We acknowledge that being able to identify these messages does not have to be instant, however we would expect this to be completed within the hour, and certainly within the 4 hours service level for resolving the highest priority incidents.

We should also note that during the Switching Programme market participants raised the following:

1. St Clements raised the need to define a replay mechanism when messages were missed, albeit with respect of a specific connectivity error (x-API). This was raised as DEF-581 in November 2020.

2. Xoserve raised the requirement for more information as part of the daily Gate Closure process, particularly information on when Gate Closure ends. This is so that they can confirm that all the required messages have been processed and if there are missing messages identify whether this is an issue within their systems or elsewhere.

Especially as the issue of missing messages continues to be a recurrent reoccurring issue experienced by several SDSPs, with ongoing monitoring of resolution via PAB and at SOIF.

Conclusion

1. Whilst the DCC in their role as the CSS Provider was able to detect the loss of market messages, it took a longer period of time to identify the messages lost. The earliest this occurred was 13 days after the event. Rectification took place, commencing on 2nd August, 27 days after the event. Given the significantly extended timescales, and the expectation that this would be completed within 4 hours in the CSS Service Definition, we conclude that the DCC in their role as the CSS Provider has not met its obligation under section 10.2 and needs to take action so that it is capable of identifying missing messages promptly in future.
2. This lack of log files was the critical cause of the extended incident. We consider this, or the lack of appropriate alternative to logging is not consistent with the DCC's, obligations under the Code, in its role as the CSS Provider, and the DCC needs to take action so that it is capable of identifying missing messages promptly in future.

Recommendations

Ref.	Theme	Area	Recommendation
T003	Compliance /Technical Solution	Detecting Missing Messages	The DCC, in its role as Switching Operator, should review the REC requirements and consider any further guidance required by the CSS Provider on when and how to raise a ticket in relation to an incident.
T004	Compliance /Technical Solution	Detecting Missing Messages	A full review of data logging is required, with logs mapped to the end-to-end switching journey. This should be completed by the DCC, in its role as CSS Provider, and should be reviewed by the REC Technical Expert Group, who should be able to require the CSS Provider to implement additional logging as it determines is required. Where REC Changes are required, these should be prioritised by the REC Code Manager in agreement with RECCo.
T005	Compliance /Technical Solution	Detecting Missing Messages	The DCC in its role as Switching Operator and CSS Provider, should review the Gate Closure process so that both the CSS Provider and recipients of messages can identify the number of messages expected and sent to each participant. There should be a mechanism to communicate to other participants that all expected messages have been sent that allows Parties to reconcile this with what was received (e.g., a double entry process). Where REC Changes are required, these should be prioritised by the REC Code Manager in agreement with RECCo.

Ref.	Theme	Area	Recommendation
T006	Compliance /Technical Solution	Detecting Missing Messages	The DCC in its role as Switching Operator, should provide a plan to the REC PAB of the actions it is taking to develop its capability in delivering its service. This should include: • How it is providing training to its staff on the end-to-end switching journey, not just the elements that relate to CSS. • How it is securing new capabilities, including the ability to communicate appropriately to all interested organisations about technical issues, develop detailed plans to resolve incidents rapidly and identify the impacts on organisations involved in the switching process. • Its plan for test environment availability to enable incident resolution across the entire switching landscape. • How it plans to manage the potential conflict of interest of the Switching Operator, managing incidents caused by the CSS Provider and having impacts well beyond the CSS Provider. This should include considering whether an independent crisis manager should be appointed to deal with the most severe incidents. • How it plans to improve its systems and data collection to avoid an unmanageable volume of tickets • How it determines decision making on proposed resolutions to future Major Switching Incidents.

THE TECHNICAL RESPONSE

REC REQUIREMENTS

Description

The DCC in its role as Switching Operator identified two solutions, first providing these for input to industry and SDSPs on 14th July 2023, 8 days after the start of the incident. Elements of the root cause were communicated to SOIF meetings, however the first written statement on the root cause of the incident was only included in the incident closure report on 6th October, 92 days after the start of the incident. Our interpretation is that while the DCC had an understanding of the root cause at an earlier stage, it chose not to provide a description of the root cause until that date. Verbal updates on the relationship of the incident to the BCDR event were provided.

The delay in sharing the root cause of the incident led to many affected organisations being concerned the issue could repeat. This issue was flagged to the DCC directly, and multiple times during the daily briefing calls. We interpret that this delay was so that the DCC could provide a more complete root cause analysis, although we consider that the failure to rapidly provide a root cause analysis was a fundamental failure that made it much more challenging for Suppliers to communicate with their end consumers, and all Market Participants to make appropriate plans in response to the incident.

The DCC identified two specific options to resolve the incident. However, Suppliers identified a third, involving withdrawal and resubmission of future dated switches. This was raised by Corona Energy as a possible risk mitigation, however the DCC refused to provide a steer to Suppliers on whether this was required, leaving this to Suppliers discretion. Only some Suppliers were able to take up this option, because the DCC did not provide data on which switches were affected until 13 days after the incident. At this point only those the switches already omitted from Gate Closure were shared, with those daily updates on the messages that had been missed for that specific day. At this point, the majority of affected Switches had passed their Supply Effective from Date. The time taken to develop options demonstrates a lack of capacity and capability on the part of the DCC to manage a major switching incident relating to missing messages.

Of the two options presented, St Clements immediately raised that there would be significant downstream issues with the Electricity Retail Data Service (ERDS) data, resulting in approximately 100,000 individual errors. Xoserve also raised concerns that the other option would cause downstream issues for gas settlements. The DCC did not offer a separate SDSP meeting to discuss a joint SDSP set of options and requirements, which could then be presented to industry. Both options were progressed for several days, even though it was clear that St Clements would not accept one of the options without at least substantial rework. This demonstrated a lack of knowledge and understanding by the DCC of the end-to-end switching lifecycle, as options were proposed that would generate major downstream impacts without detailed plans on how these would be managed.

The DCC engaged with market participants on the presented solutions, but did not engage directly to identify alternatives. Suppliers have indicated that they consider that the two options provided were provided on the basis that these would have the least cost for the DCC in their role as CSS Provider, and that there was not consideration of the overall cost to the industry. This would be a serious failing of the DCC in its role as Switching Operator's accountability for end-to-end switching. We do consider however that this incident has identified a significant conflict of interest between the DCC in their role as CSS Provider, who needs to address CSS issues and manage CSS costs, and the DCC in their role as Switching Operator, who needs to identify solutions that understand the end-to-end switching lifecycle, when responding to major incidents. There are likely to be instances where the DCC needs to pursue options that are best for the industry as a whole, but have a negative impact on the DCC in their role as CSS Provider.

Once the solutions had been developed, there was a need to validate that they would operate as expected. To do this test environments were needed, both across SDSPs as well as in Suppliers. Two Suppliers, and one Distributor, volunteered[10] to establish test environments at their own cost to support the resolution of this incident, or utilise their production systems with suitable 'test flows'. **RECCo and the Code Manager would like to extend their thanks to these organisations, as well as all other organisations that supported the resolution of this incident.**

It took 8 working days to establish the test environments. A clear lesson learned is that for incidents to be resolved within 4 hours, there needs to be environments in place that at a minimum enable testing with each SDSP, and a mechanism to rapidly scale up an environment to simulate a Party.

When the solution was developed it treated each message equally. The DCC, in their role as CSS Provider, did not have the ability to differentiate between messages and therefore prioritised them in date order. Approximately 80% of the affected switches were not related to end consumer switching suppliers but were as a result of internal migrations within Suppliers. These can cause some end consumer detriment, for example they can impact a consumer's ability to set up direct debits. However, some end consumer impacts are much more serious, for example non-domestic end consumers did go onto higher deemed contract rates and some prepayment end consumers could have been accidentally gone off supply. If large sites were involved the settlement impact on Suppliers could be incredibly significant, although we were unaware of this materialising. To appropriately resolve missing messages the DCC needs to be able to differentiate between these events, and therefore the CSS system needs to track at least whether the messages relate to a real switch. This further demonstrates that need to develop a more sophisticated understanding of the end-to-end switching process that the DCC needs to develop, in order to meet the requirements of the Code.

The solution was tested with market participants, and a plan put in place, to run the solution in phases, so that the plan could be adjusted if further issues were identified. This process was executed effectively, with market participants also acknowledging that this aspect was successful. The DCC provided clear runbooks, as well as daily calls for affected organisations to understand what was happening and to ask queries relevant to them. The execution approach ran faster than was planned by one day, allowing the vast majority of issues to be resolved through this process.

Following the execution, a reconciliation activity took place, to identify if any missing messages had not been resolved. Five reconciliation activities were identified, each being tracked separately. These included:

- Confirming that a response was received for each of the 200,483 replayed messages, or that an incident had been raised in relation to the recipient's system not being available to receive the information (referred to as failed to deliver).

10 It is our understanding that these were; Suppliers Ovo and Eon, and Distributor National Grid Electricity Distribution.

- Confirming that for the 60 meter points in MPRS which had the wrong switch date, that the DNO had updated their system to reflect the right date.
- Xoserve reconciled the data to its systems, used for gas industry processes, most critically settlement.
- Closure of 73 related incidents, which includes those raised by market participants and those where the DCC was sharing data with market participants.

Regular communications in relation to the resolution of this incident ceased on 11th September, with two incidents awaiting DNO[11] action, or action from message recipients. These incidents were managed through day-to-day incident management processes. Further communication on this incident from the DCC related to lessons learned.

Conclusions

1. Delays in providing the root cause analysis to market participants created significant, and unnecessary, concerns that the incident would repeat.

2. The time taken to develop suitable resolution options demonstrates that the DCC in its role as Switching Operator needs to develop its capability to meet the objectives set out in its Service Definition. The challenges that the DCC had understanding the impacts of the two options it presented, on end-to-end switching, further demonstrated this issue.

3. The use of CSS to facilitate internal end consumer migrations by Suppliers, led to delays in the resolution of this incident and increased the direct costs that end consumers, or other Suppliers faced. This could not have been reasonably anticipated by those Suppliers.

4. The DCC, its role as CSS Provider, did not have the information available to prioritise the resolution of end consumers who would face greater harm, such as going on to deemed contracts.

11 Independent and large Distributors.

Recommendations

Ref.	Theme	Area	Recommendation
T007	Compliance /Technical Solution	The Technical Response	RECCo should raise a change for the DCC in its role as Switching Operator to provide information on the root cause identified of incidents, as soon as possible, once it has obtained a reasonable understanding.
T008	Compliance /Technical Solution	The Technical Response	The REC PAB should approve the DCC's (in its role as Switching Operator) proposal on handling conflict of interest between the Switching Operator and CSS Provider services. For example, this may involve requiring the Switching Operator to have a separate provider to manage major incident communication and technical resolution.
T009	Compliance /Technical Solution	The Technical Response	RECCo should undertake a review of the data captured as part of a Switch, or otherwise, to help prioritise in the event of a Major Switching Incident.

CONFIDENCE IN MANAGING TECHNICAL INCIDENTS

The Switching Service Definition sets out in detail the responsibility of the DCC including; for management of Switching Incidents, (including Major Switching Incidents); management of Switching Problems; and the management of Operational Switching Service Changes, including configuration management and release management.

In our discussions, with both Switching Data Service Providers and market participants, many organisations expressed dissatisfaction with the level of service provided. These included organisations providing us examples that:

- Tickets were sent to the wrong Switching Data Service Provider (in this case EES) to resolve that related to other services.
- Challenges prioritising tickets, particularly the delay in identifying that the ticket raised by Xoserve was actually a major incident.
- A very large volume of incidents, including many automatically recorded incidents, which meant that the DCC struggled to identify themes and consistent problems given the volume of tickets.
- Challenges with delivering improvements at pace, particularly managing other issues, whilst responding to INC0216074. Most notably progress responding to a previous instance of missing messages stalled. Had this work been completed it is possible that some of the lessons learned in this report would have already been implemented.
- Organisations reported dissatisfaction with the prioritisation of tickets, including examples of when tickets had their priority reduced by the DCC without communication or discussion with the affected organisations.

Organisations we engaged with attributed this to a lack of capacity to deal with the volumes, and a lack of capability, both in terms of managing incidents and understanding switching arrangements. There were also allegations that tickets were downgraded to have a less strict service level, which would be serious allegations if proved true. Organisations also provided evidence that they have requested details of the controls in place over incident management, due to the perceptions of poor management above.

This feedback is truly valuable, but we should acknowledge that it is possible that in any service such as this there are isolated incidents where individuals make mistakes. To validate this, we have reviewed the performance data in the three months before the incident to identify if these are consistent concerns. The average number of tickets is below:

Metric Description	Apr 23	May 23	Jun 23
Priority 1 (P1) - Major Incident	N/A	N/A	N/A
Priorty 2 (P2) - Major Switch Incident	N/A	1*	1*
Priority 3 (P3)	48	29	51
Priority 4 (P4)	5996	9482	8290

*The identified ticket was graded as P2 by the CSS Service Provider, but not resolved within 1 day. It was subsequently downgraded to P3. We do not believe a major incident manager was appointed, although there is provision in the Switching Service Management schedule does enable the DCC, in its role as Switching Operator, to check an issue is genuinely a major incident before proceeding.

When reviewing performance against resolution targets, it is clear that there are challenges resolving priority 3 tickets within the REC defined timeline, with priority 1 and 2 tickets needing an even faster response.

Metric Description	Apr 23	May 23	Jun 23
Percentage of Priority 3 Switching Incidents Resolved within SLA (3 working days)	90%	0%	64%
Percentage of Priority 4 Switching Incidents Resolved within SLA (10 working days)	90%	95%	95%

Whilst this does not directly substantiate the claims, this evidence is consistent with the feedback provided by Switching Data Service Providers and market participants. Since the start of April, these metrics have formed part of a performance charge, and therefore reporting is subject to assurance. This started in July 2023, although delayed as the DCC has been focused on resolving INC0216074. This process will report to the PAB at the same time as this report and identified the downgraded P2 incident.

Conclusions

1. The DCC in its role as Switching Operator needs to both address the issues identified by organisations with its performance, as well as improve perceptions of this performance.

2. There is a lack of trust in the incident management process that requires independent scrutiny, as well as further visible input and challenge from RECCo and the Code Manager.

Recommendations

Ref.	Theme	Area	Recommendation
T010	Compliance /Technical Solution	Confidence in managing technical incidents	Where the DCC in its role as Switching Operator carries out its regular assessment in line with its obligation, within the Switching Operator Service Definition, it should periodically report the emerging issues and trends to RECCo, this is to enable a holistic view to consider if these indicate proactive improvements, or code changes, which might mitigate the risk these issues might culminate in a future incident. A summary of this should be presented at the Switching Operator Forum (SOF). Where REC Changes are required, these should be prioritised by the REC Code Manager, in agreement with RECCo.
T011	Compliance /Technical Solution	Confidence in managing technical incidents	In the ongoing performance assurance over reporting, RECCo should review samples of downgraded tickets, or tickets reassigned to different organisations, and their rationale to identify if this indicates issues with capability or REC compliance.
T012	Compliance /Technical Solution	Confidence in managing technical incidents	The DCC, in its role as Switching Operator, should provide guidance to industry on the controls it has in place over incident management to build confidence in their capability. Prior to this guidance being issued it should be reviewed by the REC Code Manager Technical Service and approved by the REC PAB.

COMMUNICATION & STAKEHOLDER ENGAGEMENT

REC REQUIREMENTS

Communications with the right people

In the immediate period following the incident, several stakeholders, including nominated Contract Managers for at least two large Supplier organisations, raised concerns that they had not been included in communications about the incident initially. Industry engagement was not sought early enough, and some parties[12] had no engagement until 11th July, impacting the opportunity for all parties to give or be included in informed important decisions. With communication delays causing a downstream impact on resources, an ability to monitor/assess requirements, and mitigate issues for end consumers.

It was suggested that the contact information held by DCC was not complete, therefore some key contacts were omitted from communications. This risk was mitigated by ensuring that all communications were also sent by the REC Code Manager via the REC Portal. There is a clear opportunity for the DCC to review their current method of updating contact details held on the Switching Portal, to ensure the process is efficient and effective for all REC Parties, and make it more likely that REC Services will be able to contact the right people.

Communicating the right messages

With an initial delay in the DCC incident messages, the first time that some parties heard about the issue was via updates from other parties e.g., Xoserve, RECCo. As a result, the DCC did not have full control of the messaging which impacted confidence across the parties in the immediate period following the incident, and introduced the risk of confusion, and the impartialality of communications being shared. Suppliers felt a lack of controls and alert management procedures from DCC impacted the messaging, which they felt was inadequate and vague, causing confusion and leaving Suppliers unsure what to do or how to communicate within their own organisations.

It is noted that many stakeholders contacted the REC Code Manager Service Desk and the Operation Account Manager (OAM) service seeking information about the incident, some contacting DCC directly or self-serving due to the immediate lack of engagement. Although the DCC did provide an early outline of the incident to RECCo and the REC Performance Assurance team, the REC Professional Service team which runs the Service Desk, OAM and wider communications functions was not included in those early meetings, which limited the ability to keep code users adequately informed via those tools. There was a lack of visibility of both, the incident MIM, and clear line of sight on the DCC roles and responsibilities (in their role as the Switching Operator and the CSS Service Provider), in particular the organisational structure for Incident Management. This improved throughout the period following the incident, as the frequency and completeness of updates provided to the Code Manager increased.

To make an accurate assessment of actions required, it is critical that the content of the messaging to stakeholders is accurate, easy to understand, and complete. If any of these features is absent, the message being conveyed may be misinterpreted and further issues might arise.

12 Industrial & Commercial Supplier & Shippers, and collated TPI feedback confirmed in our sessions.

Some market participants raised concerns that early communications from the DCC did not give the appropriate level of insight into the cause of the incident and the required fix. Communications were also uniform, and not tailored to the market participants type e.g., Domestic and non-Domestic Suppliers, who could have been differently impacted. Although this supports accessibility through simplicity, it may have limited the perceived value of the communication for some stakeholder categories. Impacted organisations were often unclear on what actions that they were required to take, with a lack of regular, clear updates, or FAQs available on the Switching Portal. The DCC suggested that the delays were due to incorrect contact information held on their Switching Portal.

Moreover, initial communications sent from the DCC were difficult to interpret by non-technical users and particularly from smaller market participants. Once a process had been established to distribute messages, from the DCC through the RECCo, and on the REC Portal, measures were taken to ensure that the updates were written in plain English, were consistently structured, and could be understood by the target audience. It is unreasonable to avoid non-technical language altogether when providing updates on a technical incident; however, the steps introduced whereby RECCo would assess the proposed communications prepared by the DCC, ensuring the narrative was clear for its target audience, and the language was user friendly provided an additional layer of scrutiny which improved the accessibility of the messaging.

The DCC's own communications were more technical in nature – this may be appropriate, if the intended audience of the messaging is distinct, although there was a large cross-over between the recipients of both sets of communications.

It was noted that often there were only very minor changes to the content of messages sent, particularly when these were being distributed three times per day. This approach was taken to ensure it was clear that the messages remained relevant, even if unchanged at publication time of the new message and it was always clearly noted on the communications sent via RECCo and on the REC Portal. That view was not universally shared across with some respondents stating that repeating an unchanged incident update was unhelpful.

Finally, it was highlighted that the messages did not go far enough to articulate the end consumer impact of the incident, which in turn made it more difficult for market participants to articulate impact to end users/consumers, as well as limiting the ability of RECCo to communicate clearly on the whole market impact. The Switching Data Service Provider can fully and appropriately assess and communicate the impact of an incident on all types of stakeholders, including the end users/consumers, in order that risks can be appropriately managed and mitigated.

Communicating at the right time

Timely communication is critical for allowing impacted stakeholders to mitigate risks early through informed decision-making.

As previously noted, several stakeholders were concerned that they had not received messages from the DCC in their role as CSS Provider. Several stakeholders noted the delay in information, the delay before the first incident stakeholder forum, and (at times) the language used by the DCC seems to contradict the code requirement to take ownership and accountable responsibility for the incident and its resolution. Several noted that all they were looking for was that the DCC understood the incident was within their accountability, and that they stood shoulder to shoulder, sharing ownership with industry, where appropriate.

In all instances, the DCC should be the first to initiate communications at all stages of the process. The DCC did not provide communications to be sent via the RECCo on the REC Portal until 15:30 on 7th July 2023, the day following the incident, a considerable time after stakeholders had been initially made aware that there was a business impacting issue through the Xoserve update. This delay risks the market confidence in the DCC was aware of the incident and in a position to resolve quickly whilst mitigating

risks. After Xoserve raised the issues with Gate Closure there was no meaningful, timely information, response or guidance provided to Xoserve. The initial response to the incident raised by Xoserve took over an hour, leading to Corella developing their own data to create a fair understanding of what was being faced. Senior staff at Xoserve had to suggest daily meetings to ensure communication was consistent throughout the incident.

Communications were sent from various sources , Xoserve, the DCC and RECCo. The DCC should be the single organisation responsible for communication management for similar future events. In addition to the email communications sent by the DCC, and the updates hosted on the REC Portal, updates were distributed to REC Party Contract Managers via the Code Manager's OAM team. This was a useful facet of the strategy, as it allowed stakeholders a route to reach out to a known, and trusted, contact within the REC umbrella, and supported the Code Manager's Service Desk in responding to queries from REC Parties.

Crucial to stakeholder engagement was the instruction from RECCo to repurpose of the planned Switching Operations Issues Forum (SOIF), 6 days into the incident. The frequency of which was increased during the incident time frame. A daily SOIF was welcomed by stakeholders. This was following a 6-day delay in the provision of any timely and clear communications strategy being mobilised by DCC, in its role as the Switching Operator. These delays demonstrated a lack of capability in communicating with affected organisations and individuals, and requires significant capability development by the DCC.

Following the intervention of RECCo, the approach to stakeholder engagement significantly improved, and brought collaboration between the DCC and other industry partners (particularly the Code Manager).

Stakeholders have provided positive feedback on the frequency of communications provided via the REC Code Manager and on the REC Portal, which were three times per day (including over the weekends) for the majority of the immediate post-incident period, reducing to daily updates once the level of remediation activity had stabilised[13].

Further consideration may be afforded to whether the SOIF workgroup is the most appropriate forum for discussions on these incidents[14]. A standalone, and/or specialist, group should be established by the DCC with a bespoke agenda, participant list, and clarity on its decision-making powers; i.e., with a participant RACI, and/or clarification within the Incident Management Policy of how/when it would be convened and its role. This would ensure that the normal business of SOIF is not disrupted, more than necessary, and would support the right decision made at the right time, by the right stakeholders. The capability to communicate with the impacted stakeholders, at the right time, could influence the ability to develop alterative technical changes and/or communication methods to ensure clarity and transparency of messages for Market Participants, SDSP's, TPI's and end consumers.

In our interactions with affected organisations many fed back on the lack of understanding that the DCC demonstrated in its handling of the impacts on other organisations. We also heard in some cases that market participants expect Ofgem, as the regulator of both the DCC in their role as Switching Operator and CSS Provider, to have taken a greater role. This expectation should be considered when the future of these two roles, and the role of RECCo are reviewed. Ensuring a complete and up-to-date contact distribution list is in place, or that adequate amplification of the message is achieved by using established routes including those managed by the RECCo.

13 A view not universally shared across all our lessons learnt feedback respondents.

14 Given the specificity of their focus and the inaccessibility to a wider set of energy market participants, i.e., where they are designed for engagement on Switching day-to-day business, with an audience of CSS Service Users, SDSPs, and RECCo who know about the existence of the meeting and have asked to attend, so are added to the invitation list.

Conclusion

Overall, it is noted that the strategy for stakeholder engagement evolved throughout the immediate period following the incident, as feedback was received and the approach taken by DCC, and RECCo was adapted accordingly. Stakeholders benefitted from the improved approach that was taken forward following intervention from RECCo. This is in stark contrast from the feedback received throughout the first working day following the incident, where stakeholders noted their confusion and frustration at a lack of communication, exacerbated by updates being provided to them by other market participants. This called into question whether the right organisations had adequate control and ownership of the incident.

Based on our analysis, and in our opinion, in order that important and mitigating actions can be taken promptly, it is critical that all relevant stakeholder groups are given timely, accurate and complete information following an incident. This ensures that any response to an incident is coordinated and limits the risk of any conflicting messages being shared by stakeholder groups without a full understanding of the facts, allowing parties to best mitigate the impact of the incident on themselves and end consumers. During this review period Third Party Intermediaries (TPI's), some Suppliers and Energy UK[15] highlighted a lack of timely communication to them, with TPI's stating that there was no awareness of the incident or direct communication from the DCC before, during or after the incident. Whilst the DCC did put out communications, these were of a poor quality, too late.

Following the intervention of RECCo, the approach to stakeholder engagement significantly improved, and the collaboration between DCC and other industry partners (particularly the Code Manager) allowed for a more effective engagement strategy to be implemented. It will be valuable to embed those lessons learned from the initial stages of remediation into an enduring process for future incidents.

15 When providing combined review lessons learnt & impacts feedback on behalf of their Supplier Members.

Recommendations

Ref.	Theme	Area	Recommendation
COM022	Communications	Communicating the right messages	RECCo should raise a change to REC Schedule 26, Switching Service Management, to provide additional direction on a requirement not just to develop a Category 3 procedure, but for DCC in its role as Switching Operator to periodically review, reissue and maintain a: • Switching Incident Management Policy, including defined roles & responsibilities (i.e., RACI) • Switching Service Management Policies & Procedures. • Procedure for the review and updating of contact lists for CSS Users, SDSP's and other interested parties. Annual testing of Incident Management Policies. • procedures, processes, and RACI. • RACI clearly setting out hierarchy of needs dependent of Priority of Incident. • clear communications strategy included channels and cadence of meetings in addition to ongoing SOF. • A Major Switching Incident run book. The DCC, in its role as Switching Operator, should complete annual testing of the incident responses processes for incident management.
COM023	Communications	Communicating the right messages	DCC, in its role as Switching Operator, should have a clear communication plan in place with the inclusion of. • A suite of standard communications templates for helpdesks to draw upon – i.e., SDSP's and Market Participants • Separate Channel forum during Major incidents for SDSP's • A list of Frequently Asked Questions to be maintained by the MIM and made accessible to the Code Manager and Operational Account Manager, reviewed, and agreed utilising a RACI. • MIM needs to have processes to issue standard communications for SDSP's to use, Market Participants, and to be shared with the other interested organisations, namely consumers and their agents, this should include a 'steering committee 'that has clear roles for SDSPs and RECCo defined by a RACI.
COM024	Communications	Communicating to the right people	RECCo should consider a "tell us once" contact principle; for example, a single authentication and contacts service to make the process of providing contacts to REC Services simpler and more effective.

THE IMPACT OF THE INCIDENT

THE IMPACT ON CONSUMERS

Overarching Consumer protections, and focus, are set out in several REC Party Licences, and under the REC, we have considered these when assessing the requirements on parties under the REC.

REC REQUIREMENTS

Description

The impacted supply switch, and new registration messages, directly correlated to end consumers who were expecting a change of Supplier, or the start of a new energy supply. Positively, all Switches/Registrations completed[16] by the time the incident was closed, however feedback confirmed there were some end consumers impacts as they awaited a solution.

The Retail Energy Code (REC) requires all Code Parties to have a consumer focus and to ensure that their actions do not have a negative impact on consumers. The Suppliers and the DCC, have this enshrined in their licence, which include the need to comply with the REC's requirements for consumer protection, and that information provided to end consumers is clear and accurate.

Those servicing end consumers[17] need timely, clear information on ongoing incidents,[18] to have certainty on events, the associated risks, and be able to proactively act in their end consumers best interests. Feedback from a large number of Suppliers, Distributors, & Gas Transporters confirmed they felt the availability and quality of the information provided, did not always provide this certainty.

Without this Suppliers can be unclear on who is impacted, the potential risks, the best course of action, and who they need to offer proactive guidance or support to. As such, some domestic Suppliers were only able to react to events as they unfolded, including for a small number of Smart Prepayment consumers needing to send an engineer out to help keep them on supply. Separately, the uncertainty meant TPIs, and energy Brokers, saw a detrimental impact to the number of available competitively priced products offered by non-Domestic Suppliers whilst they awaited clarity of which switches were affected and what resolution was available.

Conclusions

In our opinion, based on our analysis, a Major Switch Incident that is not resolved within defined service levels, bears the likely risk of end consumer impact. That risk cannot be mitigated by those providing direct services to consumers, if they are not well informed about what is impacted, what is going on to stop the incident and how/when will the switch/registration successfully complete. Key to this is both clear, accurate, timely information, and the inclusion of more consumer-friendly communications, to offset the risks uncertainty and limited information introduce.

This incident did have end consumer impacts, but the current volume of switches and the time of year, helped limit the detriment felt.

16 Either processed as part of the incident resolution process, or for a small number of consumers withdrawn and resubmitted afresh ahead of the incident resolution being applied.

17 Energy Suppliers, Distributors, Gas Transporters and TPIs.

18 The majority of Suppliers, Distributors, Gas Transporters and TPIs confirmed they saw the importance of information like, who/what is impacted , the root cause of the issue, routes to resolve, timescales etc.

Observed Consumer Impacts

Whilst gathering our feedback from impacted stakeholders, we noted additional end consumer impacts observed by responding organisations as a result of the incident and, whilst these are necessarily beyond the REC code governance purview, include them for awareness.

- Small Increase urgent/emergency visits; to keep Smart Pre-pay end consumers on supply.
- A domestic electricity end consumer was left awaiting the final connection of live supply into their home, whilst their new supply registration/switch was unable to complete. To resolve, the Distributor had to take the extraordinary steps to replace the unique identifier assigned to the meter point (MPAN), assign a new one, to allow the registration to start from scratch, and finally enable a live energy service. [Not a sustainable solution at volume.]

One non-domestic Supplier noted[19]

Fortunately, the incident did not coincide with a major renewal round (1st April or 1st October). However, had the disaster recovery taken place on the originally proposed date it would have had far more severe repercussions. It is also the case that the switching rates have to date been relatively low but with the market retreating from historic high prices we could be seeing an upswing in switching and the robustness of the system to manage these volumes needs to be assured.

19 Industrial and commercial (I&C).

THE IMPACT ON ENERGY BUSINESSES

REC REQUIREMENTS

Description

Where switches do not proceed on the expected date, downstream impacts to the wider Switching landscape, set out across various energy industry codes[20], occur. The DCC has a responsibility to consider the cost and impact of an incident against the industry (like REC defined processes, systems, data, and services), and ensure its proposed solutions help to resolve these. A solution that seeks to purely solve the issue for REC Switching systems only, can have an unnecessary impact (resource, time, cost) on the wider Switching landscape.

Feedback received from EUK member Suppliers[21] confirmed they anticipate a potentially 2-year impact on end consumers from this incident, via Switching processes for open/closing Meter Reading Disputes, Erroneous Transfers and Settlements. These impacts, if not mitigated when a solution is implemented, have the potential to lead to potentially unnecessary impacts to businesses as they try to mitigate impacts to them and their end consumers, around avoiding incorrect or late bills, suppliers paying for the wrong period/volume of energy under settlements, or the end consumer being sent to the wrong Supplier.

Observed Business Impacts

Whilst gathering our feedback from impacted stakeholders, we noted additional business impacts observed by responding organisations as a result of the incident. Whilst these are necessarily beyond the REC code governance purview, they have been included for awareness as an indication of some potential impacts a long running Major Switch Incident might have on impacted business and their end consumers.

- Small Increase to prepay end consumer urgent/emergency visits; to keep Smart Pre-pay end consumers on supply.
- Goodwill end Consumer compensation payments made - a Supplier confirmed they have paid goodwill compensation in response to the effect on end consumers. Noting that whilst the circumstances did not trigger an automatic Supply Guaranteed Standards of Performance (GSoP)[22] payment, the Supplier understood the impact on the effected end consumers, ahead of the incidents resolution resulting in the Switch completion.
- Majority of Non-Domestic Suppliers have picked-up additional costs to serve, limiting end Non-Domestic End consumer financial detriment.
- Majority of Suppliers concerned at the resourcing needs & costs required through incident; especially as the impact is ultimately borne by end consumers. Expressing that both poor information and a poor action plan, meant an inability to clearly understand and proactively be able to plan resource requirements. For some Suppliers this meant either; reacting/responding to incident needs as they arose or worked longer hours to compensate.
- Majority of Suppliers express huge disappointment that the CSS Value is not being realised. Positive intent, so much money/effort went into getting it right but feels like something key missing.

Conclusion

In our opinion, the DCC has a responsibility to consider the cost and impact of an incident is against the industry, like REC defined processes, systems, data, and services, and ensure its proposed solutions help to resolve these. A solution that seeks to purely solve the issue for REC Switching systems only, can have an unnecessary impact (resource, time, cost) on the wider Switching landscape.

20 GB Energy Industry Codes: including those managing energy trading, reconciliation and settlement, the gas Uniform Network Code (UNC), and electricity Balancing & Settlement Code (BSC), and the electricity Distributor Connection Use of System Arrangements (DCUSA) which can be impacted by registration and settlement issues felt under REC/BSC

21 Energy UK is an association representing a number of domestic & non-domestic, electricity & gas, Suppliers.

22 The Electricity and Gas (Standards of Performance) (Suppliers) (Amendment) Regulations 2020

Recommendations

Ref	Theme	Area	Recommendation
IM015	Commercial	Impact on Energy Business	RECCo should propose a change to code to clarify the DCC as Switching Operator's broader obligation to assess an incidents impact on the wider Switching Arrangements, with the purpose of ensuring the most effective, efficient (time, cost, resource) overall Switching industry solution is promoted and implemented.
IM016	Commercial	Impact on Energy Business	RECCo should propose the development of a cross-code working group to consider the cross-code implications of a future Major Switch Incident and whether any proactive adjustment to code governance provisions across UNC, BSC, and DCUSA6, might better assist energy industry parties fix consequential issues/ effects across the wider industry end-to-end Switching landscape. e.g., settlement issues.

THE IMPACT ON LICENCES AND CODES

REC REQUIREMENTS

Description

We did not identify a direct requirement in the REC for the DCC to assess the impact of this issue on regulatory requirements beyond the REC. However, this does relate to communicating information to other interested Parties.

At the request of RECCo the DCC assessed the impact of this incident on regulatory requirements. The DCC set out on 14th July that 'Solutions will be assured by DCC regulatory teams to ensure compliance with industry codes.

The REC Code Manager also provided comfort to industry that those acting to support the resolution of the incident would not have compliance issues in relation to the REC Performance Assurance. This was provided on 1st August, as well as 16th August.

On 27th July, the DCC provided the following analysis:

Regulations update.

All Major Switching Incidents must follow the process detailed from paragraph 2.9 – paragraph 2.17 in the REC Switching Service Management, Schedule 26.

***Paragraph** 2.13: "2.13 Each Switching Data Service Provider shall assess and resolve Major Switching Incidents for the services it provides as part of the Switching Arrangements. Each Switching Data Service Provider shall follow its own internal incident management process and procedures to resolve Major Switching Incidents within required Service Levels and shall keep the MIM [Major Incident Manager] informed of progress through to resolution. The MIM shall in turn keep Market Participants and Switching Data Service Providers informed of progress via a Switching Portal bulletin." As this Major Switching Incident occurred in CSS, DCC as the CSS Provider is responsible its resolution.*

***Paragraph** 2.14: "2.14 Where the root cause of a Major Switching Incident is not easily identified or where the resolution spans multiple Switching Data Service Providers, each relevant Switching Data Service Provider shall aid the MIM with the initial triage and impact assessment and shall participate in any coordinated activities to aid its resolution." Due to the nature of the incident increased engagement has taken place in order to reach a resolution.*

This analysis did not include a comprehensive assessment of the implications of either the incident, or the proposed fixes. For example:

1. There was no clarity to Suppliers on the dates to use for switch meter reads (e.g., if the Supply Effective from Date was delayed if this should be the original or later Supply Effective from Date).

2. It did not include consideration of how end consumers should be billed, to avoid double billing.

3. It did not include an analysis of the two options and their regulatory impacts, particularly on accurate settlement in gas and electricity.

4. Gas Suppliers and Shippers, in particular, requested clarity on whether the REC Disputed Reads process should be used to assist with end consumer billing or if suppliers should wait until Xoserve has provided the opening/closing meter reads for the CSS held switch date.

As a result of this gap, RECCo facilitated a workshop on 14th August to identify options to deal with disputed reads within gas. We are aware that Suppliers requested clarity from RECCo on the appropriate solution, but given RECCo's role in the industry it was not able to provide a steer on issues beyond the sole remit of the REC.

In parallel, Xoserve established a working group to progress modifications to the UNC and IGT UNC which would enable Xoserve to take appropriate actions to align CSS and UKLink (referred to as Modification 0855). This proposed:

a. The CDSP undertakes, where material, an adjustment to correct the disconnect between CSS and UKLink

b. There is clarity in the UNC as to which party is responsible for Settlement in the event that CSS and the UKLink system are misaligned

c. The CDSP may load a Meter Reading on the CSS Registration Date (or the Original Intended Supply Effective from Date), which User may replace such Meter Reading and the purpose for which this Meter Reading is loaded

d. There is clarity about the circumstances that the CDSP shall generate and issue invoice adjustments

e. There is the ability for Losing and Gaining Shippers to opt out of Settlement adjustment.

To update relevant Suppliers and Shippers on issues, within gas, which relate to the resolution of INC0216074 Xoserve established daily calls providing proactive briefings.

The DCC also identified the requirement to convene an emergency Change Advisory Board (eCAB) to RECCo, considering that it required the REC Code Manager, as chair, to convene this body. However, RECCo raised concerns that the Switching Change Advisory Board did not have the required capabilities to make decisions on this issue and required Supplier representation to do so effectively. Confusion between the DCC and the RECCo on the responsibilities for convening the Switching Change Advisory Board led to the DCC believing that they had been instructed that a Switching Change Advisory Board was not the appropriate route. As a result, the DCC requested that the PAB was convened in its place to support the decision-making process.

Market participants identified that a need for greater clarity over how REC arrangements in general manage the performance of the DCC, in both their roles as Switching Operator and CSS Provider. This included:

- Observations around the suitability of the contract that these services are delivered, particularly that it is delivered by a licenced Party who accedes to the REC, not as a contractor to RECCo. This included observations on the form of the contract in place as well as the visibility of the role of RECCo and the Code Manager in manging performance.
- This described a lack of clarity on the actions PAB is taking in relation to ongoing performance challenges, and a need for better clarity on the actions taken in relation to this incident.

Suppliers also identified concerns that they would have specific action taken against them in relation to issues that were caused by the incident that they have no control over. These include Switch Meter Disputes and Erroneous Switches.

Conclusions

In our opinion, based on our analysis.

1. The DCC, in its role as Switching Operator, does not have a Code requirement to provide analysis on the impact of incidents on Code requirements. To meet the objectives of the DCC it is essential that a clear articulation of the incident, its impacts, and the impacts of the actions taken to resolve it on compliance are identified.

2. The analysis provided demonstrated, in our opinion, that the DCC, in its roles as Switching Operator and CSS Provider, does not have a detailed understanding of the end-to-end switching process, particularly the upstream and downstream aspects such as how switching data is then used for energy settlement.

3. Suppliers, in particular, sought greater clarity on how to handle regulatory and Code challenges, which the DCC, RECCo or Ofgem were not able to provide directly.

4. Confusion as to how the Switching Change Advisory Board operated led to the DCC not convening this forum, even though it clearly identified the requirement to do so.

5. RECCo needs to reassure Suppliers that their performance reporting will not be impacted by this incident.

6. How the REC PAB, and RECCo arrangements in general, are driving performance improvements from the DCC, needs to be more visible.

Recommendations

Ref.	Theme	Area	Recommendation
IM017	Commercial	Impact on Licences and Codes	RECCo should propose a change to the REC to clarify that if a Major Switching Incident is not going to be resolved within defined Service levels, then the DCC in its role as Switching Operator should determine the impact on compliance with the REC end-to-end Switching Arrangements, and work with Ofgem, and the Code Administrators for BSC, UNC and DCUSA, and RECCo, to identify the cross code impacts/impacts on other Codes when managing an incident and developing an appropriate solution for industry, with least negative impact to end-consumers.
IM018	Commercial	Impact on Licences and Codes	Following the code change resulting from IM017, RECCo should provide guidance to DCC, in both its role as Switching Operator and CSS Provider, on the responsibilities for ensuring appropriate guidance and instruction is given, when working with Ofgem, the Code Administrators (for BSC, UNC and DCUSA, and RECCo), when managing an incident and determining the impact on compliance of the respective organisations within the scope of the REC.
IM019	Commercial	Impact on Licences and Codes	RECCo should review the terms of reference of the Switching Change Advisory Board (SCAB), as well as its membership, so that it could be convened to make decisions on similar incidents, should they occur in the future. As part of the review, consideration is needed around the SCAB role when agreeing the right resolution, with change impacts to multiple SDSPs and market participants. How to convene an emergency Change Advisory Board should be included in any incident plan updates. Once concluded and changes are made, clear guidance and information should be communicated via REC communications channels to market participants.

Ref.	Theme	Area	Recommendation
IM020	Commercial	Impact on Licences and Codes	RECCo, working with the DCC (in its role as the CSS Provider and Switching Operator), should consider the potential to identify and prioritise certain customer groups impacted by a Major Switching Incident, for approval by the PAB. This should be clearly communicated to industry when approved.
IM021	Commercial	Impact on Licences and Codes	RECCo should consider the appropriateness of the current arrangements and provide a clear recommendation to Ofgem on the contractual arrangements and governance required to effectively manage the CSS Provider and Switching Operator.

REC Requirements Index

Preventing Missing Messages - REC Requirements

Switching Operator Service Definition, paragraph 1.8
The Switching Operator will be the escalation point for all switching related activities delivered by the Switching Data Service Providers, and will lead on the following key Switching Service Management processes: … (g) demand, availability, and capacity management in respect of the Switching Arrangements

CSS Service Definition, paragraph 7.10.
Overall, capacity shall be such that all the other non-functional requirements placed on the CSS are efficiently met.

CSS Service Definition, paragraph 4.4.
In the event of an unplanned outage: (b) the CSS shall resume normal operations within one hour

CSS Service Definition, paragraph 6.6.
Where a BCDR event is invoked, the Recovery Time Objective for the Registration Service and Address Management Service will be: (a) four hours target time; and (b) eight hours maximum time

CSS Service Definition, paragraph 7.9.
The CSS shall be capable of the following: … (c) adding and removing System resources dynamically, as resource requirements vary.

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Detecting Missed Messages - REC Requirements

CSS Service Definition paragraph 10.2: *The CSS shall be able to detect loss and duplication of Market Messages transferred from / to it and shall have facilities for rectification.*

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The Technical Response - REC Requirements

Switching Operator Service Definition Paragraph 1.4: *The Switching Operator delivers the following outcomes: … (a) provision of analysis, and detailed investigations into the root causes of recurring Switching Incidents, as part of its management of Switching Problems, to support the identification of any permanent resolutions that may be required;*

Switching Service Management, Schedule 26, paragraph 1.6: *At a high level, the Switching Service Management function will be accountable for: … (b) communicating switching service information to Market Participants and other interested parties;*

Switching Service Management, Schedule 26, paragraph 1.1: *The Switching Operator has overall accountability for the effective and robust operation of the end to-end Switching Arrangements.*

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Communication & Stakeholder Engagement - REC Requirements

Switching Service Management, Schedule 26, paragraph 1.6: *At a high level the Switching Service Management function will be accountable for: …. (a) providing a business-to-business Switching Service Desk as a single point of contact for use by Market Participants for switching issues and information; …. (h) education of Market Participants and other interested parties through publication of items such as FAQs, training material and knowledge articles;*

Switching Service Management, Schedule 26, paragraph 2.9: *The Switching Operator shall ensure that an appropriately qualified individual is available at all times to manage each Major Switching Incident raised (known as a Major Incident Manager or MIM). The Switching Operator shall ensure that the MIM manages each Major Switching Incident raised, to ensure that the Major Switching Incident is resolved and the Switching Arrangements are resumed as soon as possible. The MIM shall work with the Switching Data Service Providers to coordinate activities to facilitate the resolution of Major Switching Incidents.*

Switching Service Management, Schedule 26, paragraph 2.12: *Where an issue is classified as a Major Switching Incident by the MIM, the Switching Operator shall notify all Market Participants, the Code Manager, the Switching Data Service Providers and other interested parties as soon as reasonably practicable, via a Switching Portal bulletin. Market Participants and Switching Data Service Providers can also sign-up to 'push notifications' to alert them to the occurrence of a Major Switching Incident.*

Switching Service Management, Schedule 26, paragraph 2.13 : *Each Switching Data Service Provider shall assess and resolve Major Switching Incidents for the services it provides as part of the Switching Arrangements. Each Switching Data Service Provider shall follow its own internal incident management process and procedures to resolve Major Switching Incidents within required Service Levels and shall keep the MIM informed of progress through to resolution. The MIM shall in turn keep Market Participants and Switching Data Service Providers informed of progress via a Switching Portal bulletin.*

Switching Operator Service Definition paragraph 1.11. *The Switching Operator shall maintain and operate a Switching Portal to deliver the following outcomes: ….. (c) providing an accurate and continually updated knowledge base for the guidance and assistance of Market Participants, Switching Data Service Providers and other interested parties; and ….. (d) using role-based access control to ensure that each Switching Portal User has access to the correct data for its organisation.*

Switching Service Management, Schedule 26, paragraph 1.9 : *The provisions included in this REC Schedule cover two aspects, as follows: (a) end-to-end processes which affect Market Participants; and (b) roles and responsibilities of the Switching Operator and Switching Data Service Providers.*

Switching Service Management, Schedule 26, paragraph 2.13 : *Each Switching Data Service Provider shall assess and resolve Major Switching Incidents for the services it provides as part of the Switching Arrangements. Each Switching Data Service Provider shall follow its own internal incident management process and procedures to resolve Major Switching Incidents within required Service Levels and shall keep the MIM [Major Incident Manager] informed of progress through to resolution. The MIM shall in turn keep Market Participants and Switching Data Service Providers informed of progress via a Switching Portal bulletin".*

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The Impact on Consumers - REC Requirements

Energy Supply Licence Standard Conditions Electricity 11B / Gas 11:... b) *to ensure customers interests...is protected in the operation of the REC*

Smart Meter Communication Licence 15.2 *A The General Centralised Registration Service Objective sets out the requirements of the Licensee under the Authority's Switching Programme to provide Relevant Service Capability to operate a Centralised Registration Service through Steady State Operations*

15.2B *For the purposes of this condition the Licensee should fulfil the...General Centralised Registration Service Objective with due consideration to the total cost to and impact on industry, taking into account, in so far as is relevant and possible, the likely impact on consumers.*
REC, Schedule 1 , Interpretations & Definitions *– "Retail Risk" definition - used under Performance Assurance Methodology (PAM) a risk that retail energy consumer outcomes, and the effectiveness of the retail market are measurably and significantly degraded by a failure by a REC Service User or REC Service Provider to meet the objectives, standards, and core processes under this Code".*

Switching Service Management, Schedule 26, 1.6 *At a high level, the Switching Service Management function will be accountable for;.(h) education of Market Participants and other interested parties through publication of items such as FAQs*

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The Impact on Energy Businesses - REC Related Licence Requirements

Smart Meter Communication Licence 15.2 *A The General Centralised Registration Service Objective sets out the requirements of the Licensee under the Authority's Switching Programme to provide Relevant Service Capability to operate a Centralised Registration Service through Steady State Operations*

15.2B *For the purposes of this condition the Licensee should fulfil the...General Centralised Registration Service Objective with due consideration to the total cost to and impact on industry, taking into account, in so far as is relevant and possible, the likely impact on consumers.*

The Impact on Energy Businesses - REC Requirements

Switching Service Management, Schedule 26, paragraph 1.1 *The Switching Arrangements include services and Systems sourced from a number of service providers. A Switching Service Management function is therefore required to ensure co-operation and co-ordination between multiple Market Participants and Switching Data Service Providers. This Switching Service Management function supports cross-functional, cross process, and cross-provider integration and creates an environment which ensures all service providers contribute to the successful and cost-effective management of the Switching Arrangements. The overall aim of Switching Service Management is to facilitate the smooth operation of the Switching Arrangements*

Switching Service Management, Schedule 26, paragraph 1.7 *... the Switching Operator, who has overall accountability for the effective and robust operation of the end-to-end Switching Arrangements.*

Switching Service Management, Schedule 26, paragraph 1.8 *The Switching Operator will be the escalation point for all switching related activities delivered by the Switching Data Service Providers, and will lead on the following key Switching Service Management processes: ...(a) management of Switching Service Requests,*

including access requests; … (b) management of Switching Incidents, including Major Switching Incidents; ….(c) management of Switching Problems; …. (f) measurement, continuous improvement, and performance reporting in respect of the Switching Arrangements;

Switching Service Management, Schedule 26, paragraph 1.9 *The provisions… cover two aspects, as follows: … (a) end-to-end processes which affect Market Participants; and (b) roles and responsibilities of the Switching Operator and Switching Data Service Providers.*

REC, Schedule 1, Interpretations & Definitions *Switching Arrangements means the Systems and processes used by the Switching Data Service Providers in relation to the Address Management Service and the Registration Service.*

REC, Schedule 1 , Interpretations & Definitions *Registration Service means the component of the Central Switching Service which records Switching Operation Data and manages Switches, as further described in the Switching Data Management Schedule and the Registration Services Schedule.*

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The Impact on Licences and Codes

Switching Service Management, Schedule 26, paragraph 1.4 *At a high level, the Switching Service Management function will be accountable for: … (b) communicating switching service information to Market Participants and other interested parties;*

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