Switching Service Management

Contents

SCHEDULE 26

Switching Service Management Schedule

Version: 1.1   Effective Date: 12 April 2024

Domestic Suppliers	Mandatory
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Gas Transporters	Mandatory
Distribution Network Operators	Mandatory
DCC	Mandatory
Metering Equipment Managers	Mandatory for CSS Users
Non-REC Service Users	Mandatory for CSS Users

Change History

Version Number	Implementation Date	Reason for Change
0.1	N/A	Version agreed for industry consultation 15 October 2018
0.2	N/A	Version agreed for June 2019 consultation
0.3	N/A	Version following consultation for review by RDUG
0.4	N/A	Version updated following Jan RDUG meeting
0.5	N/A	Baselined by RG on 27 February 2020
0.6	N/A	Updated draft for November 2020 re-baselining
0.7	N/A	Updated for Spring 2021 Switching Consultation
1.0	18 July 2022	Switching SCR Modification R0041 R0045
1.1	12 April 2024	R0063

1   Introduction

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.

1.2. Service management obligations on Market Participants and Switching Data Service Providers have been set out in this REC Schedule. More detailed requirements including timescales and interfaces for interactions between the Switching Operator and Switching Data Service Providers are included in the relevant Service Definitions and / or the Category 3 Switching Service Management Procedures document which shall be maintained by the Switching Operator in accordance with the Change Management Schedule.

1.3. Any disputes between Market Participants or Switching Data Service Providers and the Switching Operator in relation to the Switching Arrangements shall be escalated to the REC Performance Assurance Board.

1.4. Access to Switching Service Management will be provided to Market Participants, Managed Service Providers, CSS Interface Providers and Switching Data Service Providers via a self-service Switching Portal. There will be a public facing part of the Switching Portal that will provide general information, including knowledge articles, relating to the Switching Arrangements to all interested parties. There will also be a secure section of the Switching Portal that is only for Market Participants and Switching Data Service Providers. Access to this secure section will be provided to registered users in accordance with the role-based access matrix (available on the Switching Portal). Further information on the Switching Portal is provided in Paragraph 3.

1.5. There will also be a Switching Service Desk, which will be available to all registered users of the Switching Portal (but not the public generally). Further information on the Switching Service Desk is provided in Paragraph 6.

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;

(b) communicating switching service information to Market Participants and other interested parties;

(c) managing and resolving Switching Incidents and issues within defined timescales;

(d) understanding and anticipating demand for services;

(e) coordinating activities that span multiple Switching Data Service Providers;

(f) publishing reports detailing information held on the Central Switching Service to Market Participants;

(g) collating information relating to key performance indicators and providing them to the REC Performance Assurance Board;

(h) education of Market Participants and other interested parties through publication of items such as FAQs, training material and knowledge articles;

(i) ongoing service improvement and Switching Problem resolution through root cause analysis; and

(j) performing service measurement and reviews to identify areas for improvement.

1.7. The Switching Service Management function is provided by the Switching Operator, who has overall accountability for the effective and robust operation of the end-to-end Switching Arrangements.

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;

(d) knowledge management including knowledge articles;

(e) management of Operational Switching Service Changes, including configuration management and release management;

(f) measurement, continuous improvement and performance reporting in respect of the Switching Arrangements;

(g) demand, availability and capacity management in respect of the Switching Arrangements; and

(h) information security, business continuity, disaster recovery and risk management.

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.

1.10. Where this REC Schedule contains a requirement on a Switching Data Service Provider to provide information to another Switching Data Service Provider then, unless otherwise specified, this will be provided through a mechanism and in a format agreed by the provider and recipient of that information. Where possible, this should be provided in a standard format as agreed by all service providers.

1.11. Where this REC Schedule requires information to be provided by or to the Code Manager or a Market Participant via a particular mechanism (including for example a Switching Portal bulletin), then this will be provided via that mechanism unless another mechanism has been agreed bilaterally between the sender and recipient.

1.12. Notwithstanding any requirements or efforts by other persons to improve the operation of this REC Schedule, the REC Board shall keep it under review, including consideration of periodic (at least yearly) reports from the Code Manager, and shall take all reasonable steps to revise, replace or remove any issues that the REC Board identifies may inhibit the achievement of the Code Objectives.

2 Switching Service Requests and Switching Incidents

Process for Raising Switching Service Requests or Switching Incidents

2.1. Market Participants may at any time raise a Switching Service Request or report a Switching Incident to the Switching Operator. Market Participants can raise Switching Incidents and Switching Service Requests about anything that impacts the Switching Arrangements. Guidance on raising Switching Incidents and Switching Service Requests, including which service desk should be contacted in which circumstances, will be provided in a knowledge article on the Switching Portal.

2.2. The Switching Operator shall assign a priority ranking to each Switching Incident, based on its impact on the Switching Arrangements and/ or one or more Market Participants. The Switching Operator shall provide a response in accordance with the Service Levels for the priority assigned as defined in the Switching Operator Service Definition.

2.3. The Switching Operator shall review each Switching Incident to determine:

(a) whether there is an associated Switching Problem Record. Where a Switching Problem Record exists, the Switching Operator will progress resolution in accordance with Paragraph 2.21.

(b) whether the Switching Incident links to an implemented change. Where the Switching Incident has arisen due to the implementation of a change, the Switching Operator will feed the outcome into the post implementation review of the change.

2.4.	Where the Switching Portal is available and the Market Participant has the necessary access rights, the Market Participant shall raise Switching Service Requests and Switching Incidents via the Switching Portal.

2.5.	Where the Switching Portal is unavailable, and / or the Market Participant does not have the necessary access rights, the Market Participant may raise Switching Service Requests and Switching Incidents via email to the Switching Service Desk.

2.6.	Market Participants shall not raise Switching Service Requests or Switching Incidents via telephone unless access via the Switching Portal and email is unavailable.

2.7.	The Switching Operator shall operate a three-tier support model to resolve Switching Incidents and Switching Service Requests:

(a)	**Self Help** - The Switching Operator shall create and publish knowledge articles via the Switching Portal. Market Participants should use this knowledge base to resolve their own queries where possible, before formally raising a Switching Service Request or logging a Switching Incident. To ensure the knowledge articles remain relevant, Market Participants should provide feedback to the Switching Operator when knowledge articles are perceived to have gaps, be incomplete or over complicated. The Switching Operator shall either update the relevant knowledge article(s) or respond to the Market Participant to explain why a change is not required.

(b)	**First Line Support** – Where the query has not been resolved via knowledge articles, the Market Participant may log a Switching Incident or raise a Switching Service Request for consideration by the Switching Service Desk. Where possible, the Switching Service Desk will resolve the query without recourse to the second line support teams using known error or knowledge articles. The Switching Service Desk shall ensure that the query has been resolved to the reasonable satisfaction of the Market Participant before closing the Switching Service Request / Switching Incident.

(c)	**Second and Third Line Support** – Where the Switching Service Desk is unable to resolve the Switching Service Request / Switching Incident, it will be transferred to the relevant Switching Data Service Provider to resolve. The relevant Switching Data Service Provider shall provide progress updates through the Switching Service Management System. The Switching Operator shall communicate directly with the Market Participant and notify the Market Participant when the Switching Service Request or Switching Incident has been resolved. If a fully automated interface between the Switching Data Service Provider and the Switching Service Management System is not implemented, the Switching Data Service Provider shall directly update the information in the Switching Service Management System in a timely manner. The Switching Service Desk shall ensure that the Market Participant is satisfied that the query has been resolved

before closing the Switching Service Request / Switching Incident. The Switching Service Desk shall monitor and escalate Switching Incident and Switching Service Request resolution to ensure that the required timescales are met.

2.8. Where a Switching Data Service Provider identifies an issue that has an impact on the Switching Arrangements they shall ensure a Switching Incident is logged within the Switching Service Management System.

Major Switching Incidents

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.

2.10. Where a Market Participant or Switching Data Service Provider raises an issue that it believes is a Major Switching Incident i.e. a priority 1 or 2 Switching Incident, then it should be flagged as such. The issue should be raised in accordance with Paragraph 2.4 or 2.5 (as applicable), and also immediately followed up with a telephone call to the Switching Service Desk to ensure a timely response. The criteria to be used for classifying a Switching Incident as a Major Switching Incident are defined in the Switching Operator Service Definition and these should be checked before flagging a Switching Incident as a potential Major Switching Incident.

2.11. Where a Switching Incident is flagged as a potential Major Switching Incident, the Switching Service Desk will notify the MIM on duty at that time. The MIM shall determine whether the issue should be classified as a Major Switching Incident, and shall inform the raising Market Participant or, Switching Data Service Provider of the MIM's decision. The MIM shall manage the Major Switching Incident from its notification through to its closure.

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. Where a Major Switching Incident is deemed to be a Business Continuity / Disaster Recover (BCDR) event, the provisions in Paragraph 9 shall apply.

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.

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.

2.15. Once the Major Switching Incident has been resolved, the Switching Operator shall ensure that the Market Participants and Switching Data Service Providers shall be informed by the MIM, via a Switching Portal bulletin (or, in the case of the Switching Data Service Providers, via such other mechanism as each such person may have bilaterally agreed with the MIM), and the Major Switching Incident shall be closed.

2.16. The Switching Operator shall report each Major Switching Incident to the REC Performance Assurance Board, within two Working Days of the Major Switching Incident being identified and within two Working Days after resolution. The Switching Operator shall conduct a review after each Major Switching Incident to mitigate the risk of future Major Switching Incidents with the same or similar root cause, and to identify opportunities to manage future Major Switching Incidents more effectively. Market Participants and Switching Data Service Providers shall co-operate with such review. The Switching Operator shall report to the REC Performance Assurance Board on the outcome of each such review.

2.17. Where a Major Switching Incident is not resolved within the required Service Levels, the Switching Operator shall inform the REC Performance Assurance Board on a daily basis until the Major Switching Incident has been resolved.

Switching Problem Management

2.18. When a Switching Incident is raised and cannot be resolved such that a workaround is implemented, or where the same Switching Incident occurs frequently (either for one or more Market Participants), then the Switching Operator shall create a Switching Problem Record, which will be used to monitor the identification, and implementation of a permanent solution. The Switching Operator shall notify the relevant Market Participant(s) or Switching Data Service Provider(s) where a Switching Problem Record is created and shall pause each related Switching Incident until a resolution of the Switching Problem is implemented. Information regarding paused Switching Incidents shall be included within the monthly performance reporting provided to the REC Performance Assurance Board.

2.19. The Switching Operator shall manage each Switching Problem Record raised,

ensuring that the underlying cause is identified and the appropriate action taken to find a suitable resolution. The Switching Operator shall work with the Switching Data Service Providers to identify recurring Switching Incidents or Switching Incidents that should be classed as a Switching Problem.

2.20. If the underlying issue cannot be identified, the relevant Switching Data Service Provider shall follow their internal escalation process, providing regular updates to the Switching Operator and notifying the Switching Operator when a solution or suitable workaround has been identified.

2.21. Where a Switching Incident is raised and the Market Participant or Switching Data Service Provider raising it believes that it is a recurring issue then it should be noted as such. Once the recurring issue has been confirmed by the Switching Operator, the Market Participant or Switching Data Service Provider raising the Switching Incident shall be provided with an associated Switching Problem reference number which will be linked to all related Switching Incidents. Once the underlying issue has been resolved, the relevant Market Participant(s) or Switching Data Service Provider(s) shall be informed and the Switching Incident(s) closed.

2.22. In some instances, the Switching Operator may determine, in conjunction with any affected Market Participants or Switching Data Service Providers that the workaround should continue rather than implementing a permanent change. Any such determination shall be subject to approval by the Switching Change Advisory Board so as to provide assurance that all impacts have been taken into account. Details of the workaround will be captured within a relevant knowledge article and available to all Market Participants. In this scenario the Switching Incident and any related Switching Problem Record shall be closed, and the issue re-defined as a known error with an enduring workaround.

3   Switching Portal

3.1. The Switching Operator shall provide a Switching Portal, and make it available to Market Participants, Switching Data Service Providers, CSS Interface Providers and their authorised representatives, as further described in this Paragraph 3. The Switching Operator shall ensure that the Switching Portal is compliant with the requirements and functionality described in this Code and other Good Industry Practice requirements.

3.2. The Switching Portal shall (as a minimum) enable Market Participants, Switching Data Service Providers, CSS Interface Providers and their authorised representatives to:

(a) access user guides and the switching knowledge articles;

(b) request services to support their access to the Switching Arrangements (e.g. installation or configuration of communications into the Central Switching

Service);

    (c) raise Switching Incidents and Switching Service Requests;

    (d) track and monitor progress of Switching Service Request, Switching Incident and Switching Problem resolution;

    (e) access useful data and any diagnostic tools available;

    (f) access reports;

    (g) facilitate access to service announcements and communications (e.g. service bulletins and forward change schedules); and

    (h) provide data to the Switching Operator (e.g. demand data).

3.3. Access to the secure section of the Switching Portal will be available to Market Participants who become Switching Portal Users by submitting a request to the Switching Operator. Details of user access arrangements are set out in the Switching Operator Service Definition.

3.4. An individual user will only be able to access functions on the Switching Portal that are relevant to the Market Participant(s) they represent, and to the role(s) in which they have been appointed by that Market Participant, as defined in the role-based access matrix. Category 3 documentation detailing the process for organisations to apply to become Switching Portal Users and the role-based access matrix, shall be maintained by the Switching Operator in accordance with the Change Management Schedule.

3.5. The role-based access matrix will define a Switching Portal User's ability to access functions, including:

    (a) generic information such as knowledge articles; and

    (b) service bulletins, forward schedules of change, Switching Service Requests and Switching Incidents that were raised by (or have been identified as affecting) the Market Participant which they represent.

3.6. The Switching Service Desk will be able to setup new Switching Portal Users and update knowledge articles and bulletins.

4 Undertakings by Switching Portal Users

4.1. Each Switching Portal User shall:

(a) limit access and use of secure areas of the Switching Portal to Authorised Persons only, and supervise and control access to and use of the Switching Portal by Authorised Persons in accordance with this REC Schedule;

(b) take all necessary steps to ensure that its employees, agents and subcontractors do not act (or omit to act) in such a way that would cause the Switching Portal User to breach this REC Schedule;

(c) ensure that Authorised Persons are:

    i.   informed of and are contractually bound to safeguard the confidential nature of the Switching Portal Data accessed in accordance with this REC Schedule; and

    ii. competent in the use of the Switching Portal prior to use and understand the rights and obligations imposed in accordance with this REC Schedule; and

(d) have the business controls in place that are necessary to ensure compliance with this REC Schedule.

4.2. No Switching Portal User shall:

(a) knowingly introduce to the Switching Portal any viruses, Trojans, worms, logic bombs or other material that is malicious or technologically harmful;

(b) attempt to gain unauthorised access to the Switching Portal, the server on which the Switching Portal is stored or any server, computer or database connected to the Switching Portal; or

(c) attack the Switching Portal via a denial-of-service attack or a distributed denial-of service attack.

4.3. Each Switching Portal User shall promptly notify the Switching Operator if the Switching Portal User becomes aware of any unauthorised or unlawful processing of, loss of, damage to, destruction or corruption of, or misuse of any Switching Portal Data, or of any security breach that could compromise the security or integrity of the Switching Portal and/or the Switching Portal Data or otherwise adversely affect the Switching Operator or any one or more Switching Portal Users (including that passwords have or are suspected to have been disclosed or obtained).

5 Ceasing to be a Switching Portal User

5.1. A Market Participant shall cease to be a Switching Portal User where its Market Participant Identifier(s) is removed from Market Participant Data.

5.2. A Managed Service Provider associated with multiple Market Participants shall cease to be a Switching Portal User where all relevant Market Participant Identifiers cease to be included in Market Participant Data, or their authorisation is removed.

6   Switching Service Desk

6.1. The Switching Operator shall provide the Switching Service Desk as further described in this Paragraph 6. The Switching Operator shall ensure that the Switching Service Desk is compliant with the requirements described in this Code and all other Good Industry Practice requirements.

6.2. The Switching Service Desk provides a single point of contact for Market Participants. The Switching Service Desk works with Switching Data Service Providers to ensure that Switching Incidents and Switching Service Requests are resolved effectively and within Service Levels. The Switching Service Desk will provide support to Market Participants using the Switching Service Management System to action, route and provide guidance on all incoming Switching Incidents and Switching Service Requests.

6.3. The Switching Service Desk shall (as a minimum):

(a) ensure all reported Switching Incidents and Switching Service Requests are logged on the Switching Service Management System and assigned to the correct resolver teams;

(b) triage all Switching Incidents and Switching Service Requests using automated / scripted diagnostic information and tools to enable the resolution of a high proportion of Switching Incidents without recourse to the second-line support teams;

(c) provide first-line support using knowledge provided by each Switching Data Service Provider;

(d) work with the service desks of each Switching Data Service Provider to manage and resolve all Switching Incidents and Switching Service Requests within the required Service Levels. This includes providing sufficient information for a Switching Data Service Provider to effectively triage and resolve incidents. A Switching Data Service Provider must be provided with the following mandatory data items:

MPxN;
CSS Correlation ID
CSS Event ID
CSS errorCode
CSS errorTitle
CSS errorDescription

Optional Data Items

Current Supplier
Registration ID
Supplier Start Date
(For Certification Requests) CSS Registration Status From Date
Registration Status
Event Date/Date of Message

(e) escalate Switching Incidents and Switching Service Requests where required through to agreed escalation contacts in the Switching Operator and Switching Data Service Provider organisations;

(f) report Switching Service Request and Switching Incident management metrics to the Switching Operator;

(g) receive information from all Switching Data Service Providers relating to the availability of their Systems and processes that form part of the Switching Arrangements;

(h) provide co-ordinated information on the Switching Arrangements to Market Participants, Switching Data Service Providers, the REC Board, the REC Performance Assurance Board and any other organisation or group as requested by the REC Board, and (on request) the Authority;

(i) provide a 08:00 – 22:00 service (split between standard operational hours and out of hours support, as detailed in the Switching Operator Service Definition) for each calendar day of the year to Market Participants for Switching Service Request processing and Switching Incident management and resolution; and

(j) provide a 24 x 7 service each calendar day of the year to support the overnight Systems used in the Switching Arrangements, and for the handling of Major Switching Incidents.

7   Switching Service Management System

7.1.   Switching Data Service Providers shall use (via an automated interface e.g. API or e-bonding or directly) the Switching Service Management System to support the management of services, functions and processes through the generation and maintenance of Switching Service Management System tickets. The Switching Data Service Providers shall ensure that the Switching Service Management System tickets are generated and updated at all times.

7.2.   With the exception of Switching Data Service Providers using an automated interface, all Switching Data Service Providers connect directly to the Switching Service

Management System over the public internet using a secure channel based on Transport Layer Security (TLS) 1.2 as a minimum.

7.3. Each Switching Data Service Provider shall require one or more licences to enable direct access to the Switching Service Management System. Each Switching Service Management System licence is linked to an individual user, although licences can be transferred to other users by issuing a request via the Switching Portal. Switching Data Service Providers will be limited in the number of licences they can obtain, with additional licences available at a cost, as set out in the REC Charging Statement.

7.4. Switching Data Service Providers using an automated interface shall:

(a) provide evidence to the Switching Operator before connecting to the Switching Service Management System that they are applying security best practice as prescribed by the National Cyber Security Centre;

(b) retain all audit logs of basic user activities (e.g. logon, logoff, failed attempts) and security events for all information Systems and services that interact with the Switching Service Management System, within legal constraints, for a minimum of 15 months with live data available for three months and archived data available for a further 12 months;

(c) have a logical network schematic of the information Systems and services in scope that interact with the Switching Service Management System, and include the services and functionality and gateway / boundaries functionality;

(d) ensure that the edge routers and switches in the data centres are physically secured with direct access only being granted to staff who have a demonstrable and approved need for access; and

(e) use its own time source for time synchronisation. In the event that artefacts such as incidents and logs are required to be examined forensically, the Switching Service Management System defined time shall be the master for any incidents and in log files; and

(f) perform a self-assessment of their compliance with this Paragraph 7.4 annually.

7.5. Switching Data Service Providers shall make available evidence of compliance with Paragraph 7.4 to the Code Manager on request.

8   Operational Switching Service Changes

8.1. The aim of this Paragraph 8 is to provide a mechanism to govern and coordinate the assessment and approval of Operational Switching Service Changes that is responsive to the needs of the Switching Operator, Switching Data Service Providers,

and Market Participants. The Switching Operator shall facilitate this change management function.

8.2. Operational Switching Service Changes relate to changes to Systems and processes that are not included within the scope of the Change Management Schedule. Changes which require changes to this Code, including changes to Market Messages, will be progressed via the process in the Change Management Schedule.

8.3. Operational Switching Service Changes shall be used (for example) for: bug fixes / patches to Systems; firewall changes to facilitate network or system access; hardware or systems software upgrades; or minor operational improvements. Operational Switching Service Changes cannot be used for any changes to this Code (i.e. the main body of this Code, the REC Schedules, the Data Specification and the Service Definitions).

8.4. All Switching Data Service Providers are required to participate in the Operational Switching Service Change arrangements set out in this Paragraph 8 to ensure a co-ordinated approach.

8.5. Switching Data Service Providers shall raise a Request for Change should they wish to make an Operational Switching Service Change relating to their Systems or processes. Requests for Change should be logged on the Switching Service Management System.

8.6. A Switching Change Advisory Board, established by the REC Board and facilitated by the Switching Operator, will assess the impact of Operational Switching Service Changes. The constitution of the Switching Change Advisory Board shall include a representative from each of the Switching Data Service Providers. Each member may send an alternative to Switching Change Advisory Board meetings where required. The Code Manager shall chair the Switching Change Advisory Board in accordance with the approved terms of reference.

8.7. Meetings of the Switching Change Advisory Board shall be convened each week, where required. The Switching Operator may also convene an emergency meeting of the Switching Change Advisory Board where required. Emergency meetings should be arranged as soon as practicable, and within the same day if agreed by all affected Switching Data Service Providers. Each Switching Data Service Provider and the Code Manager shall provide '24 x 7' contact details to the Switching Operator to enable meetings to be convened outside normal Working Hours.

8.8. The Switching Operator shall classify each Request for Change as follows:

(a) **Standard Change** - Standard Changes are pre-approved Operational Switching Service Changes generally affecting a single Switching Data Service Provider that:

i.   are considered relatively low risk;

ii.   are performed frequently;

iii. follow a documented process;

iv.   do not require a service outage; and

v.   can be achieved within the agreed window.

Once approved on a generic basis, individual Standard Changes will not be subject to Switching Change Advisory Board approval; however, must be logged on the Switching Service Management System and visible to the Switching Change Advisory Board via the forward schedule of change.

Standard Changes, whilst pre-approved, are still under the jurisdiction of the Switching Change Advisory Board. If a specific category of Standard Changes causes Switching Incidents, they will be highlighted to the Switching Change Advisory Board for evaluation and potential reversion to Normal Change categorisation.

(b) **Normal Change** - Normal Changes are Operational Switching Service Changes that may affect one or more Switching Data Service Provider, and which are neither Standard Changes nor Emergency Changes. Normal Changes shall be taken to the Switching Change Advisory Board for evaluation and approval prior to implementation on a normal or expedited timescale.

(c) **Emergency Change** - An Emergency Change is an Operational Switching Service Change that must be implemented as soon as possible, for example, to resolve or prevent a Major Switching Incident or implement a security patch. This type of change must be expedited faster than a Normal Change but is still subject to Switching Change Advisory Board review and approval.

(d) **Expedited Change** - An Expediated Change is an Operational Switching Service Change that is required as a result of a Switching Incident in order to prevent the occurrence of a Major Switching Incident or to limit the impact of a Switching Incident. This type of change would be approved in an expedient manner but is still subject to Switching Change Advisory Board review and approval.

8.9. The Switching Operator shall develop and maintain a Category 3 Operational Change Procedures document in accordance with the Change Management Schedule, setting out the detailed change process and examples of each type of change to aid classification.

8.10. Changes shall undergo formal evaluation by the Switching Data Service Providers

before being presented to the Switching Change Advisory Board for approval. The Switching Operator shall provide the evaluations to the Switching Change Advisory Board for consideration.

8.11. The Switching Change Advisory Board may recommend improvements to solutions to ensure that amendments to services, processes and systems are completed efficiently with minimal disruption.

8.12. Where Switching Change Advisory Board approval is required, members should work together to reach consensus. A Request for Change shall be approved where members attending and voting unanimously, support the change. Members should only vote where the Request for Change has a direct impact on their Switching Data Service, as identified through the impact assessment process. Where there is no impact, the relevant Switching Data Service Provider shall abstain from voting. Abstention from voting is classified as not voting.

8.13. Where a Request for Change is not approved, the Proposer may appeal the decision to the REC Performance Assurance Board within five Working Days of the meeting in which the decision was taken. For appeals in relation to Emergency Changes, appeals must be raised within one Working Day of the meeting in which the decision was taken. Appeals should be submitted to the Code Manager using a proforma made available by the Code Manager.

8.14. Where the Switching Change Advisory Board identifies an impact on this Code or the wider industry arrangements, the Code Manager, shall consider whether a Change Proposal should be raised.

8.15. The Switching Operator shall maintain a forward schedule of change in respect of the Switching Arrangements and publish it on the Switching Portal. Updates to the forward schedule will be made and published by the Switching Operator as soon as practicable following the Request for Change being raised or the Switching Operator being notified of changes not subject to Switching Change Advisory Board approval. The published forward schedule of change will include a summary of each change to be implemented.

8.16. The Switching Operator shall monitor Switching Incidents to determine whether these have occurred as a result of the implementation of an Operational Switching Service Change or a REC Change Proposal. Where this is the case, the relevant Switching Data Service Provider(s) shall attend a post implementation review meeting and support any agreed remediation activities.

9 Business Continuity / Disaster Recovery (BCDR)

9.1. A BCDR event may be invoked in the event of a Major Switching Incident, although not all Major Switching Incidents will lead to a BCDR event being invoked. A BCDR event

would typically occur after a natural disaster or a significant cyber attack etc. All Major Switching Incidents confirmed by the Switching Operator will be reviewed with the affected Switching Data Service Providers to determine whether they meet the criteria for invoking a BCDR event.

9.2. To support BCDR arrangements, each Switching Data Service Provider shall:

(a) maintain an effective BCDR capability to support the Switching Arrangements;

(b) implement processes and arrangements to recover the service within the specified Recovery Time Objective as per their relevant Service Definition;

(c) have in place a robust BCDR plan that covers security of data including any offsite storage and recovery details;

(d) demonstrate their BCDR capability annually by testing their BCDR processes; and

(e) provide a single point of contact for communication regarding service continuity related queries and issues for the Switching Operator to engage with as required.

9.3. To support BCDR arrangements, the Switching Operator shall:

(a) appoint a BCDR Manager, who is responsible for managing each BCDR event. The BCDR Manager may delegate this responsibility to the Major Switching Incident management team;

(b) develop an end-to-end business continuity and disaster recovery plan for the Switching Arrangements with input from Switching Data Service Providers for the relevant sections. The Switching Operator shall co-ordinate the review of this plan with the Switching Data Service Providers in order to protect the continuity of the Switching Arrangements and minimise the impact on services in the event of a disaster;

(c) ensure that the business continuity and disaster recovery plans of the Switching Data Service Providers interface as appropriate; and

(d) co-ordinate an annual end-to-end business continuity and disaster recovery exercise with the Switching Data Service Providers in respect of the Switching Arrangements;

9.4. The decision on whether to invoke a BCDR event, following a natural disaster or a significant cyber attack, will be based on a number of factors consider by impacted Switching Data Service Providers and validated by the Code Manager. These factors may include:

(a) the nature of the trigger event;

(b) whether the impacted services are recoverable within the [Switching Incident](#) priority 1 resolution times;

(c) whether the service infrastructure has failed to an extent that it is unrecoverable through triage and investigation as a [Major Switching Incident](#); or

(d) whether there has been a critical failure in a component that cannot be recovered.

9.5. Where a BCDR event is invoked, the [Switching Operator](#) shall notify all [Market Participant](#)s, the [Code Manager](#), the [Switching Data Service Providers](#) and other interested parties as soon as reasonably practicable, via a [Switching Portal](#) bulletin. The [Switching Operator](#) shall provide frequent updates on the resolution activities and timescales.

9.6. Where a BCDR event is invoked, each impacted [Switching Data Service Provider](#) shall support BCDR resolution activities in accordance with this Paragraph 9 and the [Category 3](#) Switching Service Management Procedures document. This shall include, but not be limited to:

(a) attendance at the war room established by the [Switching Operator](#) and provide regular and frequent progress updates (maximum one hour intervals, or as agreed with the [Switching Operator](#));

(b) recording of progress within the [Switching Service Management System](#) for auditability; and

(c) coordination of recovery actions, where required, with any third-party sub-contractors and with the [Switching Operator](#). Recovery actions may include replaying and tracking of any messages that have been stored or held (queued) at the interfaces, in order to ensure the service is operational and working as expected.

9.7. The closure of the BCDR event will be determined when:

(a) there is confirmation from the invoking [Switching Data Service Providers](#) that their BCDR recovery is complete.

(b) processing times and capacity are operating at normal volumes, to be verified by monitoring and reporting.

(c) each [Switching Data Service Providers](#) involved in the BCDR event has confirmed that the relevant service has been restored and all messages

processed, or there is an agreed plan to replay messages as required without any further effect on the service.

9.8. Following a BCDR event, the Switching Operator shall carry out a post incident review and provide a BCDR report to the Code Manager, including any recommendations to improve BCDR processes. Each Switching Data Service Provider shall provide input into the post incident review.

10 Demand and Capacity

Demand Management

10.1. The Switching Operator and Switching Data Service Providers require an understanding of the key periods of activity to enable them to optimise the use of capacity by moving workload to less utilised times, servers, or places and considering differential charging to encourage Market Participants to use services at less busy times.

10.2. The Switching Operator will publish criteria on the Switching Portal describing the circumstances when an Energy Supplier shall report, in advance, any exceptionally high demand that it expects to place on the Switching Arrangements, for example when bulk transfers are taking place. Any such exceptionally high demand must be reported to the Switching Service Desk via the Switching Portal as soon as practicable. The Switching Operator shall review the criteria from time to time and shall secure adequate publicity for any changes that it makes to the criteria.

10.3. Where a Switching Data Service Provider becomes aware that exceptionally high demand is expected, it shall notify the Switching Operator, via the Switching Service Desk as soon as practicable.

10.4. The Switching Operator shall communicate any reports of exceptionally high demand to all relevant Switching Data Service Providers enabling them to either ensure their services are able to meet such a demand or provide a suitable solution to mitigate the risk to the Switching Arrangements. Switching Data Service Providers shall highlight to the Switching Operator if this demand is likely to breach the maximum capacity requirements defined in the relevant Service Definition.

10.5. The Switching Operator shall take all reasonable steps to ensure that the Switching Arrangements are capable of dealing with exceptionally high demand and shall highlight any limitation on availability to Market Participants as soon as reasonably practicable if this cannot be achieved.

Capacity Management

10.6. Each Switching Data Service Provider is responsible for ensuring that the capacity of

its service and infrastructure is able to deliver the agreed Service Levels in a cost-effective and timely manner.

10.7. The Switching Data Service Providers shall monitor demand against capacity. Where a Switching Data Service Provider identifies that an exceptionally large amount of data is to be transmitted via the Central Switching Service, it shall notify the Switching Operator, via the Switching Service Desk, who shall notify other Switching Data Service Providers and take all reasonable steps to ensure that the Switching Arrangements are capable of dealing with exceptionally high demand, and shall highlight any limitation on availability to Market Participants if this cannot be achieved.

10.8. The Switching Operator shall carry out a review of agreed Service Levels relating to maximum capacity requirements for each Switching Data Service, 12 months after the CSS Go-Live Date, and annually thereafter. A recommendation should be made to the Code Manager where these maximum capacity volumes require amendment. Where a change is required, a Change Proposal would be progressed in accordance with the Change Management Schedule.

11 Availability

11.1. Each Switching Data Service Provider is responsible for ensuring that its Systems, processes and tools are appropriate for the availability targets set out in the relevant Service Definition. Where a Switching Data Service suffers an unplanned outage, the Switching Data Service Provider shall notify the Switching Operator.

11.2. The Switching Operator shall notify Market Participants and Switching Data Service Providers via a Switching Portal bulletin when the Switching Arrangements are degraded or suffer an outage. Where a Market Participant identifies an issue with the Switching Arrangements, the Market Participant shall raise a Switching Incident.

12 Additional Switching Operator Responsibilities

12.1. The Switching Operator has a role in each of the processes detailed within this REC Schedule.

12.2. Without limiting the other obligations set out in this REC Schedule, the Switching Operator shall:

(a) ensure that there is a clearly documented process for the creation, maintenance, audit, update and removal of knowledge management artefacts. Artefacts shall be developed in collaboration with the Switching Data Service Providers and the Code Manager, by developing and utilising knowledge management within the Switching Service Management System. The Switching Operator shall ensure that all knowledge articles are consistent with this Code. Where knowledge articles are published for the first time or updated, the Switching Operator shall

send out appropriate communications to Switching Portal Users;

(b) develop and maintain a service catalogue including a list of all operational switching services and knowledge articles available via the Switching Portal;

(c) support new market entrants becoming users of the Central Switching Service in line with the REC Qualification and Maintenance Schedule and Central Switching Service Schedule;

(d) establish and manage the overall continual service improvement process to ensure that the data captured to measure performance of the success or failure of services is used to continually align and re-align the Switching Arrangements. The Switching Operator shall co-ordinate with Switching Data Service Providers to identify and implement initiatives to improve services and processes that support the Switching Arrangements;

(e) escalate service improvements relating to the Switching Arrangements and raise changes to this Code where required. Potential changes to other Energy Codes should be highlighted to the Code Manager when identified;

(f) escalate disputes between Switching Data Service Providers relating to the Switching Arrangements to the REC Performance Assurance Board;

(g) establish and manage the overall service reporting process for the Switching Service Management arrangements and provide performance measurement reports to the REC Performance Assurance Board and (on request) the Authority (as described in the Switching Operator Service Definition);

(h) provide reports to individual Market Participants, on request, relating to data held on the Central Switching Service (as described in the CSS Service Definition);

(i) ensure that all identified risks and issues in respect of the Switching Arrangements are analysed to identify the impact and to ensure that a solution is found, or mitigation measure put in place to resolve threats and to add each risk to an end to end risk register; and

(j) in addition to the requirements under Paragraph 3, to facilitate access to service announcements and communications by making this information available via the Switching Portal, to provide such information by email (or other mechanism as agreed between the relevant parties) to Market Participants and other interested parties who have requested it.

13 Additional Switching Data Service Provider Responsibilities

13.1. Switching Data Service Providers have a role in each of the processes detailed within

this REC Schedule.

13.2. Each Switching Data Service Provider shall be responsible for its own parts of the Switching Arrangements and shall manage its own Systems, processes and tools to support these.

13.3. Without limiting the other obligations set out in this REC Schedule, each Switching Data Service Provider shall:

(a) design, build, test and maintain their services, Systems, processes and tools in accordance with Good Industry Practice;

(b) use the Switching Service Management System, in accordance with Paragraph 7, to support Switching activity;

(c) provide first, second and third line support where required in accordance with this REC Schedule, ensuring that all switching-related tickets are kept up to date on the Switching Service Management System and queries are resolved in timescales to enable Service Levels to be met;

(d) provide system status information to the Switching Service Desk at the start of each day and whenever the status changes, to support a Switching Arrangements dashboard for Market Participants;

(e) provide to the Switching Operator a Major Switching Incident communications contact list and rota of appropriately authorised individuals that are available to be contacted and deployed to Major Switching Incident teams and who will support root cause analysis post resolution;

(f) provide access management control to ensure that the access granted to Systems or data is authorised and is being properly used

(g) support the Switching Operator in development and operation of a requestable service catalogue;

(h) create and maintain a robust change management process to manage changes to their Systems and processes and services to align with the Change Management Schedule and the Operational Switching Service Change process under Paragraph 8;

(i) assess the impact on their Systems and processes of Requests for Change prior to and during planning, build and deployment phases and after deployment, and communicate any concerns relating to such changes to the Switching Operator within required timescales;

(j) work with the Switching Operator to implement approved changes impacting multiple Switching Data Service Providers, including planning, testing and post implementation support;

(k) submit, at least 10 Working Days before the end of each month, a forward schedule of change to the Switching Operator, for the next month, highlighting any agreed and planned changes and maintenance activity which may impact the Switching Arrangements;

(l) create and maintain an asset and configuration management database, holding all information on configurable items relevant to the Switching Arrangements, including specifying the attributes, describing configurable item types and their sub-components, as well as determining their interrelationships, details of which should be made available to the Switching Operator;

(m) make data available to the Code Manager to enable performance reports to be produced for the REC Performance Assurance Board, as required in accordance with the Performance Assurance Schedule. Performance data relating to activities delivered via the Switching Service Management System e.g. Switching Incident resolution timescales, shall be available directly from the Switching Service Management System and provided by the Switching Operator;

(n) define, analyse, plan, measure and control all aspects of the availability of their own Switching Data Service, ensuring that all infrastructure, processes and tools are appropriate for the availability requirements set out in this Code;

(o) manage and control the performance and capacity of their services, Systems and processes insofar as relevant to the Switching Arrangements based on volumetrics defined in the relevant Service Definition;

(p) adopt security principles, and safeguard Systems and data, using recognised standards, frameworks and Good Industry Practice;

(q) have in place a data security policy describing how the Switching Data Service Provider will secure the data it accesses and/or processes in respect of the Switching Arrangements throughout its lifecycle;

(r) report all applicable security vulnerabilities and other Switching Incidents that affect the Switching Arrangements to the Switching Operator when identified and assist with the resolution of those Switching Incidents;

(s) identify and where possible, resolve risks to the Switching Arrangements, and communicate any applicable risk that impacts Switching Arrangements to the Switching Operator. Where a solution cannot be identified, put in place mitigating measures to ensure the continuity and continued operations of services; and

(t) appoint a representative to attend weekly <u>Switching Change Advisory Board</u> meetings, plus emergency meetings, convened by the <u>Switching Operator</u>.

14 Service Reporting and Performance Measures

Reporting

14.1. Details of standard reports provided by each <u>Switching Data Service Provider</u> are set out in the relevant <u>Service Definition</u>.

14.2. Quarterly reports shall be provided by the <u>Switching Operator</u> to the <u>REC Performance Assurance Board</u> summarising the findings from service reviews carried out within the reporting period and results of improvement initiatives delivered within the reporting period.

14.3. The <u>Code Manager</u> shall maintain a list of regular reports to be provided by the <u>Switching Operator</u> to the <u>REC Performance Assurance Board</u> and (on request) the Secretary of State and / or the <u>Authority</u>. Changes to this list shall be subject to approval by the <u>REC Performance Assurance Board</u> with a reasonable notice period provided where additional reports are introduced.

14.4. The <u>Switching Operator</u> shall publish a list of reports that are available to <u>Market Participant</u>s. This list shall include details of the types of <u>Market Participant</u> that can access each report and the associated costs.