
SCHEDULE XX

Switching Service Management Schedule

Version: 0.2

Effective Date:

N/A

Domestic Suppliers	Mandatory
Non-Domestic Suppliers	Mandatory
Gas Transporters	Mandatory
Distribution Network Operators	Mandatory
DCC	Mandatory

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

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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, Switching Data Service Providers and Switching Network 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.
- 1.2 Service management obligations on Market Participants, Switching Data Service Providers and Switching Network Service Providers have been set out in this Service Management Schedule. More detailed requirements including timescales and interfaces for interactions between the Switching Operator and Switching Data Service Providers and Switching Network Service Providers are included in the Technical Specification.
- 1.3 Any disputes between Market Participants, Switching Data Service Providers or Switching Network Service Providers and the Switching Operator in relation to the Switching Arrangements shall be escalated to the REC Board.
- 1.4 Access to Switching Service Management will be controlled using the role-based access list set out in the Technical Specification. This will control the data and services that are available to an individual or entity based on the role in which they operate. There will be a public facing part of the Portal that will provide general Switching information to all interested parties. There will also be a secure section of the Portal that is only for Market Participants, Switching Data Service Providers or Switching Network Service Providers. Access to this secure section will be provided to registered users in accordance with the role-based access list. The Switching Service Desk will be available to all registered users of the Portal (but not the public generally).
- 1.5 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 the 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 related Incidents and issues within defined timescales;
 - (d) understanding and anticipating demand for services;
 - (e) coordinating activities that span multiple 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 base articles;

- (i) ongoing service improvement and Problem resolution through root cause analysis; and
 - (j) performing service measurement and reviews to identify areas for improvement.
- 1.6 The Switching Service Management function is provided by the Switching Operator, who has overall accountability for the live operation of the Central Switching Service, and oversight of all Switching Data Service Providers and Switching Network Service Providers.
- 1.7 The Switching Operator will be the escalation point for all switching related activities delivered by the Switching Data Service Providers and Switching Network Service Providers, and will lead on the following key Switching Service Management processes:
 - (a) management of Service Requests, including access requests;
 - (b) management of Incidents, including Major Incidents;
 - (c) management of 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.
- 1.8 The provisions included in this Service Management Schedule cover two aspects, as follows:
 - (a) end-to-end processes which affect Market Participants; and
 - (b) roles and responsibilities of the Switching Operator, Switching Data Service Providers and Switching Network Service Providers.
- 1.9 Where this REC Schedule contains a requirement on a Switching Data Service Provider and/or Switching Network Service Provider to provide information to a Switching Data Service Provider and/or Switching Network 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.
- 1.10 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.
- 1.11 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 Service Requests and Incidents

Process for Raising Service Requests or Incidents

- 2.1 Market Participants may at any time raise a Service Request or report an Incident to the Switching Operator. The Switching Operator shall provide a response in accordance with the Service Levels.
- 2.2 Where the Switching Portal is available and the Market Participant has the necessary access rights, the Market Participant shall raise the Service Requests and Incidents via the Switching Portal.
- 2.3 Where the Switching Portal is unavailable, and/or the Market Participant does not have the necessary access rights, the Market Participant may raise Service Requests and Incidents via email to the Switching Service Desk using the templates provided by the Switching Operator.
- 2.4 Market Participants shall not raise Service Requests or Incidents via telephone unless access via the Switching Portal and email is unavailable.
- 2.5 The Switching Operator shall operate a three tier support model to resolve Incidents and Service Requests:
 - (a) **Self Help** - The Switching Operator shall create and publish knowledge articles via the Switching Self-Service Portal. Market Participants should use this knowledge base to resolve their own queries where possible, before formally raising a Service Request or logging an 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 an Incident or raise a 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 base articles. The Switching Service Desk shall ensure that the query has been resolved to the reasonable satisfaction of the Market Participant before closing the Service Request/Incident.
 - (c) **Second and Third Line Support** – Where the Switching Service Desk is unable to resolve the Service Request/Incident, it will be transferred to the relevant Switching Data Service Provider or Switching Network Service Provider to resolve. The relevant Switching Data Service Provider or Switching Network Service Provider shall communicate directly (or with its agreement, through the Switching Operator) with the Market Participant in order to resolve the query and shall promptly provide progress updates through the Switching Service Management System. The relevant Switching Data Service Provider or Switching Network Service Provider shall notify the Market Participant and the Switching Service Management System when the Service Request or Incident has been resolved. If a fully automated interface is not implemented on the grounds that it would not be efficient to do so, the Switching Data Service Provider or the Switching Network Providers shall work with the Switching Operator to ensure that the Switching Service Management Systems is updated on a timely basis, includes the relevant date/timestamps and avoids re-keying ticket information. The Switching Service Desk shall ensure that the Market Participant is satisfied that the query has

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

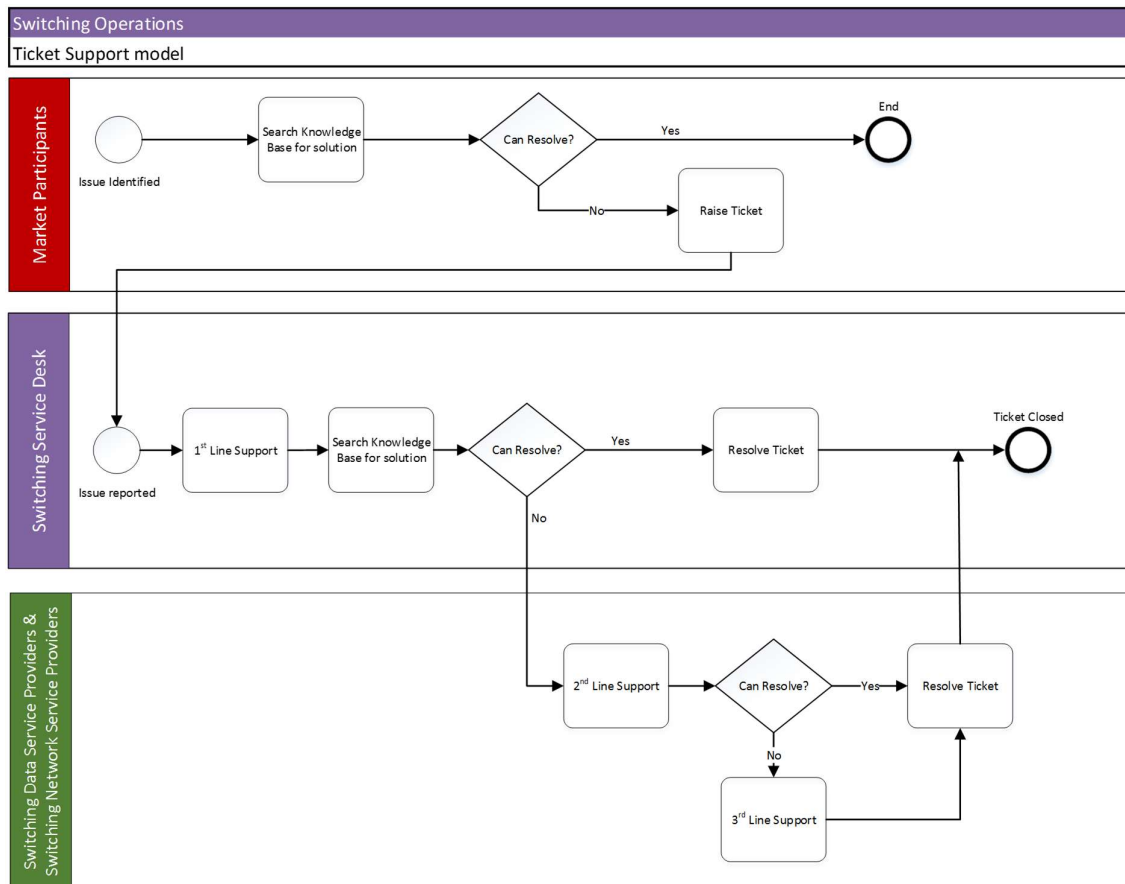


Figure 1 Switching Operations Support Model

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

Major Incidents

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

2.8 Where a Market Participant, Switching Data Service Provider or Switching Network Service Provider raises an issue that it believes is a Major Incident then it should be flagged as such. The issue should be raised via the Switching Portal (or directly into the Switching Service Management System in the case of a Switching Data Service Provider or Switching Network Service Provider who has direct access), and also immediately followed up with a telephone call to the Switching Service Desk to ensure a timely response.

- 2.9 Where an Incident is flagged as a potential Major Incident, the Service Desk will notify the MIM on duty at that time. The MIM shall determine whether the issue should be classified as a Major Incident, and shall inform the raising Market Participant, Switching Data Service Provider or Switching Network Service Provider of the MIM's decision. The MIM shall manage the Major Incident from its notification through to its closure.
- 2.10 Where an issue is classified as a Major Incident by the MIM, the Switching Operator shall notify all Market Participants that are likely to be affected by the Major Incident, the Code Manager, the Switching Data Service Providers and the Switching Network Service Providers and other interested parties as soon as reasonably practicable, via a Switching Portal bulletin.
- 2.11 Each Switching Data Service Provider and Switching Network Service Provider shall assess and resolve Major Incidents for the services it provides as part of the Switching Arrangements. Each Switching Data Service Provider and Switching Network Service Provider shall follow its own internal incident management process and procedures to resolve Major Incidents within required Service Levels and shall keep the MIM informed of progress through to resolution. The MIM shall in turn keep affected Market Participants and Switching Data Service Providers and Switching Network Service Providers informed of progress via a Switching Portal bulletin.
- 2.12 Where the root cause of a Major Incident is not easily identified or where the resolution spans multiple Switching Data Service Providers or Switching Network Service Providers, each relevant Switching Data Service Provider or Switching Network Service Provider shall aid the MIM with the initial triage and impact assessment and shall participate in any coordinated activities to aid its resolution.
- 2.13 Once the Major Incident has been resolved, the Switching Operator shall ensure that the Market Participants, Switching Data Service Providers and Switching Network Service Providers shall be informed by the MIM, via a Switching Portal bulletin (or, in the case of the Switching Data Service Providers or the Switching Network Service Providers, via such other mechanism as each such person may have bilaterally agreed with the MIM), and the Major Incident shall be closed.
- 2.14 The Switching Operator shall report each Major Incident to the REC Performance Assurance Board, within [2] Working Days of the Major Incident being identified and within [2] Working Days after resolution. The Switching Operator shall conduct a review after each Major Incident to mitigate the risk of future Major Incidents with the same or similar root cause, and to identify opportunities to manage future Major Incidents more effectively. Market Participants, Switching Data Service Providers and Switching Network Service Providers shall co-operate with such review. The Switching Operator shall report to the REC PAB on the outcome of each such review.
- 2.15 Where a Major 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 Incident has been resolved.

Problem Management

- 2.16 When an Incident is raised and cannot be resolved such that a workaround is implemented, or where the same incident occurs frequently, then the Switching Operator shall create a 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), Switching Data Service Provider(s) or Switching Network Service Provider(s) where a Problem Record is created.

- 2.17 The Switching Operator shall manage each 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 and Switching Network Service Providers to identify recurring Incidents or Incidents that should be classed as a Problem.
- 2.18 If the underlying issue cannot be identified, the relevant Switching Data Service Provider or Switching Network 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.
- 2.19 Where an Incident is raised and the person raising it believes that it is a recurring issue then it should be noted as such. Once the recurring issue has been confirmed, the person raising the Incident shall be provided with an associated Problem reference number which will be linked to all related Incidents. Once the underlying issue has been resolved, the relevant Market Participant(s), Switching Data Service Provider(s) or Switching Network Service Provider(s) shall be informed and the Incident closed.
- 2.20 In some instances, the Switching Operator may determine, in conjunction with any affected Market Participants, Switching Data Service Providers or Switching Network Service Providers that the workaround should continue rather than implementing a permanent change. Any such determination shall be subject to approval by the Change Advisory Board so as to provide assurance that all impacts have been taken into account. In this scenario the Incident and any related Problem record shall be closed, and the issue re-defined as a known error with an enduring workaround.

Event Management

- 2.21 The scope of the event management process covers events, alerts and notifications automatically generated by the Switching Data Services and Switching Network.
- 2.22 Each Switching Data Service Provider and Switching Network Service Provider shall identify key aspects of its service that require monitoring. These will be captured within an event matrix, to be updated from time to time to ensure appropriate events are being monitored. Any changes to the event matrix shall be approved by the Change Advisory Board.
- 2.23 Switching Data Service Providers or Switching Network Service Providers shall apply (where possible) automated monitoring to services and or Systems specified within the approved events matrix. Where issues are identified through event monitoring, Incidents should be raised in accordance with the process in this Paragraph 2.

3 Switching Portal

- 3.1 The Switching Operator shall provide a Switching Portal, and make it available to Market Participants, 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 to:
- (a) access user guides and the switching knowledge base 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 Incidents and Service Requests;
 - (d) track and monitor progress of Service Request, Incident and 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 Market Participants shall access the Switching Portal via registered Switching Portal Users acting on the Market Participant's behalf.
- 3.4 A Switching Portal 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 Access Matrix. Documentation detailing the process for organisations to apply to become Switching Portal Users and the Access Matrix, shall be maintained by the Switching Operator and subject to REC Board approval.
- 3.5 The 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, Service Requests and Incidents that were raised by (or have been identified as affecting) the Market Participant which they represent.
- 3.6 Switching Data Service Providers and Switching Network Service Providers will be able to access the Switching Portal to undertake agreed manual processes or workarounds and provide reporting updates.
- 3.7 The Switching Service Desk will be able to setup new Switching Portal Users and update knowledge articles and bulletins.
- 3.8 The Switching Operator will be able to undertake ad hoc administration functions.
- 3.9 The Switching Portal will be available at all times, except during planned or unplanned maintenance windows permitted in accordance with Service Levels. The Switching Operator shall notify Switching Portal Users of any planned maintenance windows at least 10 Working Days before the outage, and the Switching Operator shall report on unplanned maintenance as soon as reasonably practicable, after becoming aware of an unplanned outage.

4 Switching Service Desk

- 4.1 The Switching Operator shall provide the Switching Service Desk as further described in this Paragraph 4. 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.
- 4.2 The Switching Service Desk provides a single point of contact for Market Participants. The Switching Service Desk works with Switching Data Service Providers and Switching Network

Service Providers to ensure that Incidents and 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 Incidents and Service Requests.

4.3 The Switching Service Desk shall (as a minimum):

- (a) ensure all reported Incidents and Service Requests are logged on the Switching Service Management System and assigned to the correct resolver teams;
- (b) triage all Incidents and Service Requests using automated/scripted diagnostic information and tools to enable the resolution of a high proportion of incidents without recourse to the second-line support teams;
- (c) provide first-line support using knowledge provided by each Switching Data Service Provider and Switching Network Service Provider;
- (d) work with the service desks of each Switching Data Service Provider and Switching Network Service Provider to manage and resolve all Incidents and Service Requests within the required Service Levels;
- (e) escalate Incidents and Service Requests where required through to agreed escalation contacts in the Switching Operator and Switching Data Service Provider or Switching Network Service Provider organisations;
- (f) report Service Request and Incident management metrics to the Switching Operator;
- (g) receive information from all Switching Data Service Providers and Switching Network 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, Switching Network 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 for each calendar day of the year to Market Participants for Service Request processing and Incident management and resolution; and
- (j) provide a 24x7 service each calendar day of the year to support the overnight Systems used in the Switching Arrangements (as identified in the Technical Specification), and for the handling of Major Incidents.

4.4 Unless it is agreed to be inefficient and impractical to do so, the Switching Data Service Providers and Switching Network Service Providers shall use (via an automated interface eg 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 tickets. The Switching Data Service Providers and Switching Network Service Providers shall ensure that the Switching Service Management System tickets are generated and updated at all times. If a fully automated interface is not implemented on the grounds that it would not be efficient to do so, the Switching Data Service Provider or the Switching Network Providers shall work with the Switching Operator to ensure that the Switching Service Management System is updated on a timely basis, includes the relevant date/timestamps and avoids re-keying ticket information.

5 Switching Network

- 5.1 Each Switching Network Service Provider shall provide relevant information to the Code Manager, for publication on the Website, describing the arrangements for Market Participants to gain access to the Switching Network Service Provider's Switching Network. The access arrangements are set out in the Technical Specification.
- 5.2 Each Switching Network Service Provider shall provide appropriate support to facilitate testing and market entry by Market Participants and Switching Data Service Providers in relation to their requirements under the Technical Specification.

6 Operational Switching Service Changes

- 6.1 The aim of this paragraph 6 is to provide a mechanism to govern and coordinate the implementation of Operational Switching Service Changes that is responsive to the needs of the Switching Operator, Switching Data Service Providers, Switching Network Service Providers and Market Participants. This change management function will identify and prioritise Operational Switching Service Changes, to manage the implementation, to minimise the impact on the Switching Data Service Providers, Switching Network Service Providers and Market Participants, and to deliver against the Service Levels. The Switching Operator shall facilitate this change management function.
- 6.2 Operational Switching Service Changes relate to changes to Systems and processes that are not included within the scope of the REC Change Management Schedule. Changes which require changes to this Code, including changes to CSS interfaces defined in the Technical Specification, will be progressed via the process in the REC Change Management Schedule.
- 6.3 Operational Switching Service Changes can 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. They can also include minor changes to improve the Switching Service including: addition of a new data item on a report, new links on the Switching Portal, new incident or service request templates or changes to service management processes. However, Operational Switching Service Changes cannot be used for any changes that have the potential to have a material detrimental impact on Market Participants.
- 6.4 All Switching Data Service Providers and Switching Network Service Providers are required to participate in the central change management arrangements set out in this paragraph 6 to ensure a co-ordinated approach.
- 6.5 Switching Data Service Providers and Switching Network Service Providers shall raise a Request for Change should they wish to make a change to their Systems or processes which relate to the Switching Arrangements. Requests for Change should be logged on the Switching Service Management System.
- 6.6 A Change Advisory Board shall be established and maintained by the Switching Operator to assess the impact of changes on the Central Switching Service or other components of the Switching Arrangements.
- 6.7 The terms of reference for the Change Advisory Board will be approved by the REC Board; however, the Change Advisory Board will not be a Sub-Committee.
- 6.8 The constitution of the Change Advisory Board shall include a representative from each of the Switching Data Service Providers and Switching Network Service Providers. Each member may

send an alternative to Change Advisory Board meetings where required. The Code Manager shall support the Change Advisory Board in accordance with the approved terms of reference.

6.9 Meetings of the Change Advisory Board shall be convened each week, where required. The Switching Operator may also convene an emergency meeting of the 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 and Switching Network Service Providers. Each Switching Data Service Provider, Switching Network 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.

6.10 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; and
- (iv) can be achieved within the agreed window.

Once approved on a generic basis, individual Standard Changes will not be subject to Change Advisory Board approval; however, must be logged on the Switching Service Management System and reported to the Change Advisory Board for visibility and audit purposes.

Standard Changes, whilst pre-approved are still under the jurisdiction of Change Management. If a specific category of Standard Changes repeatedly causes Incidents, they will be highlighted to the 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/or Switching Network Service Provider, and which are neither Standard Changes nor Emergency Changes. Normal Changes shall be taken to the Change Advisory Board for evaluation and approval prior to implementation.

(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 Incident or implement a security patch. This type of change must be expedited faster than a Normal Change but is still subject to Change Advisory Board review and approval.

6.11 The Switching Operator shall develop and maintain a change management procedure document for approval by the Change Advisory Board, setting out the detailed change process and examples of each type of change to aid classification.

6.12 Changes shall undergo formal evaluation by the Switching Data Service Providers and Switching Network Service Providers before being presented to the Change Advisory Board for approval. The Switching Operator shall provide the evaluations to the Change Advisory Board for consideration.

- 6.13 The Change Advisory Board may recommend improvements to solutions to ensure that amendments to services, processes and systems are completed efficiently with minimal disruption.
- 6.14 Where 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. Abstention from voting is classified as not voting.
- 6.15 Where a Request for Change is not approved, the Proposer may appeal the decision to the REC Board within [5] Working Days of the meeting in which the decision was taken. For appeals in relation to Emergency Changes, appeals must be raised within 1 Working Day of the meeting in which the decision was taken. Appeals should be submitted to the Code Manager using the proforma in the Appendix.
- 6.16 Where the Change Advisory Board identifies an impact on this Code or the wider industry arrangements, the Switching Operator shall highlight the impact to the Code Manager, together with a recommendation on whether a Change Proposal should be raised.
- 6.17 The Change Management Schedule requires Switching Data Service Providers and Switching Network Service Providers to provide impact assessments in relation to Change Proposals which have a potential impact on Switching Data Services or Switching Network Services. Where a REC Change Proposal impacts multiple Switching Data Services or Switching Network Services, the Code Manager may request that the Change Advisory Board considers the Change Proposal and provides a joint impact assessment to ensure changes to the Switching Data Services and Switching Network Services are co-ordinated.
- 6.18 The Switching Operator shall plan, schedule and coordinate the implementation of changes to Switching Data Services and Switching Network Services which impact the Switching Arrangements.
- 6.19 The Switching Operator shall maintain a forward schedule of maintenance and change in respect of the Switching Arrangements, and publish it each month on the Switching Portal with reference to the next month's activity. Updates to the forward schedule will be made and published by the Switching Operator on a more regular basis as new changes are approved or notified to it.

7 Demand and Capacity

Demand Management

- 7.1 The Switching Operator, Switching Data Service Providers and Switching Network 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.
- 7.2 Each 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.
- 7.3 Where a Switching Data Service Provider or Switching Network Service Provider becomes aware that exceptionally high demand is expected, it shall notify the Switching Service Desk.

- 7.4 The Switching Operator shall communicate any reports of exceptionally high demand to all relevant Switching Data Service Providers and Switching Network 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.
- 7.5 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 if this cannot be achieved.

Capacity Management

- 7.6 Each Switching Data Service Provider and Switching Network 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.
- 7.7 The Switching Data Service Providers and Switching Network Service Providers shall monitor demand against capacity. Where a Switching Data Service Provider or Switching Network Service Provider identifies that an exceptionally large amount of data is to be transmitted through the Switching Network it shall notify the Switching Operator, who 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 if this cannot be achieved.

8 Availability

- 8.1 The Switching Operator is responsible for coordinating change to maximise the availability of the Switching Arrangements for Market Participants. This includes coordinating the changes for each Switching Data Service Provider and Switching Network Service Provider.
- 8.2 Each Switching Data Service Provider and Switching Network Service Provider is responsible for ensuring that its Systems, processes and tools are appropriate for the availability targets set out in the Technical Specification.
- 8.3 Each Switching Data Service Provider and Switching Network Service Provider shall provide availability plans to the Switching Operator who will collate information and develop an overall availability plan covering all aspects of the Switching Arrangements. This overall availability plan will be made available on the Switching Portal.
- 8.4 The Switching Operator shall notify Market Participants 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 an Incident.

9 Additional Switching Operator Responsibilities

- 9.1 The Switching Operator has a role in each of the processes detailed within this Service Management Schedule.
- 9.2 Without limiting the other obligations set out in this Service Management 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 Switching Network Service Provider, by developing and utilising knowledge management within the

Switching Service Management System. Where knowledge articles are published for the first time or updated, the Switching Operator shall send out appropriate communications to Switching Portal Users;

- (b) collate service catalogue information received from Switching Data Service Providers and Switching Network Service Providers and use it to publish a list of all operational switching services (which list shall be maintained to ensure that it is accurate and contains key information on the services provided);
- (c) support new market entrants becoming users of the Central Switching Service in line with the REC entry process assessment provisions;
- (d) meet with the Switching Data Service Providers and Switching Network Service Providers on a regular basis (with the frequency set out in the Technical Specification) with the aim of ensuring that the service(s) provided meet the needs of switching;
- (e) 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 and Switching Network Service Providers to identify and implement initiatives to improve services and processes that support the Switching Arrangements;
- (f) 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 REC Board when identified;
- (g) escalate disputes between Switching Data Service Providers and/or Switching Network Service Providers relating to the Switching Arrangements to the REC Board;
- (h) establish and manage the overall service reporting process for the Switching Arrangements, working with Switching Data Service Providers and Switching Network Service Providers to collate data on the performance of the Switching Arrangements and provide performance measurement reports to Market Participants, Switching Data Service Providers, Switching Network Service Providers, the REC Performance Assurance Board and (on request) the Authority;
- (i) provide reports to individual Market Participants, on request, relating to data held on the Central Switching Service (as described in the Technical Specification)¹;
- (j) develop an end-to-end business continuity and disaster recovery plan for the Switching Arrangements with input from Switching Data Service Providers and Switching Network Service Providers for the relevant sections. The Switching Operator shall co-ordinate the review of this plan with the Switching Data Service Providers and Switching Network Service Providers in order to protect the continuity of the Switching Arrangements and minimise the impact on services in the event of a disaster;
- (k) ensure that the business continuity and disaster recovery plans of the Switching Data Service Providers and Switching Network Service Providers interface as appropriate, and

¹ In line with CR-E19, we anticipate that the Switching Operator will provide reports containing Switching loss notification information to Energy Suppliers that have customers but are not Qualified. We will incorporate this requirement within this Schedule and/or other schedules once the operational arrangements are finalised.

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

- (l) 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;
- (m) 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; and
- (n) arrange quarterly strategy meetings with all Switching Data Service Providers and Switching Network Service Providers to consider continual improvement initiatives.

10 Additional Switching Data Service Provider and Switching Network Service Provider Responsibilities

10.1 Switching Data Service Providers and Switching Network Service Providers have a role in each of the processes detailed within this Service Management Schedule.

10.2 Each Switching Data Service Provider and Switching Network 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.

10.3 Without limiting the other obligations set out in this Service Management Schedule, each Switching Data Service Provider and Switching Network 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 4.4, to support switching activity;
- (c) provide a service desk facility to interact with the Switching Service Desk and provide first, second and third line support where required in accordance with this Service Management 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) identify, create and deliver regular training as defined in the Technical Specification and produce knowledge and access to data to enable the Switching Service Desk to respond to queries;
- (f) work with the Switching Operator to ensure that all knowledge articles are reviewed with reasonable frequency to ensure they are relevant, accurate and up-to-date;

- (g) provide to the Switching Operator a Major Incident communications contact list and rota of appropriately qualified individuals that are available to be contacted and deployed to Major Incident teams and who will support root cause analysis post resolution;
- (h) provide access management control to ensure that the access granted to Systems or data is authorised and is being properly used;
- (i) create and maintain a service catalogue and provide details to the Switching Operator to enable the publication of an overall switching service catalogue;
- (j) 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 Switching Operator’s Change management process under Paragraph 6;
- (k) assess the impact on their Systems and processes of Change Proposals and 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;
- (l) work with the Switching Operator to implement approved changes impacting multiple service providers, including planning, testing and post implementation support;
- (m) notify the Switching Operator of any changes to their Systems and processes that may impact the Switching Arrangements and, every month, at least 10 Working Days before the end of that month, submit a forward schedule of change to the Switching Operator, for the next month, highlighting the agreed and planned changes and maintenance activity;
- (n) 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;
- (o) make data available to the Switching Operator as required in accordance with the Technical Specification to enable a suite of internal and external performance reports to be produced. Much of the data for the reports should be available directly from the Switching Service Management System. Where this is not the case, each Switching Data Service Provider and Switching Network Service Provider shall provide data to the Switching Operator through an agreed alternate method;
- (p) proactively seek opportunities to improve the way the Switching Arrangements are delivered in order to implement agreed improvement initiatives in a co-ordinated manner;
- (q) define, analyse, plan, measure and control all aspects of the availability of their own Switching Data Service (for Switching Data Service Providers) or Switching Network (for Switching Network Service Providers), ensuring that all infrastructure, processes and tools are appropriate for the availability requirements set out in this Code;
- (r) manage and control the performance and capacity of their services, Systems and processes insofar as relevant to the Switching Arrangements, and provide the Switching Operator with a capacity plan for all service elements;

- (s) adopt security principles, and safeguard Systems and data, using recognised standards, frameworks and Good Industry Practice;
- (t) work with the Switching Operator to produce a data security policy describing how the service provider will secure the data it accesses and/or processes in respect of the Switching Arrangements throughout its lifecycle;
- (u) report all applicable security vulnerabilities and other Incidents that affect the Switching Arrangements to the Switching Operator when identified and assist with the resolution of those Incidents;
- (v) create, test and maintain a robust business continuity and disaster recovery plan in respect of their own services, Systems and processes insofar as relevant to the Switching Arrangements, and work in conjunction with the Switching Operator to create a full end to end continuity plan (including participating in an end-to-end business continuity and disaster recovery exercise in respect of the Switching Arrangements);
- (w) 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
- (x) appoint a representative to attend quarterly strategy and monthly Change Advisory Board meetings, plus emergency meetings, convened by the Switching Operator.

11 Service Reporting and Performance Measures

Reporting

- 11.1 The scope of the service reporting covers, in respect of the Switching Arrangements:
 - (a) service performance against KPIs;
 - (b) all Incidents opened and closed in the reporting period;
 - (c) all Operational Switching Service Changes being managed in the reporting period;
 - (d) any known security breach attempts during the period;
 - (e) usage and volumetric information;
 - (f) the results and findings from service reviews;
 - (g) agreed improvement initiatives;
 - (h) the success/failure of improvement initiatives;
 - (i) any other area of the Switching Arrangements as requested by the REC Board or the REC Performance Assurance Board in accordance with Paragraph 11.4.
- 11.2 Reports showing performance against the KPIs included in the Technical Specification shall be provided by the Switching Operator to the REC Board each month and published on the Switching Portal.

- 11.3 Quarterly reports shall be provided by the Switching Operator to the REC Board summarising the findings from service reviews carried out within the reporting period and results of improvement initiatives delivered within the reporting period.
- 11.4 The Code Manager shall maintain a list of regular reports to be provided by the Switching Operator to the REC Board, the REC Performance Assurance Board and (on request) the Secretary of State and/or the Authority. Changes to this list shall be subject to approval by the REC Board with a reasonable notice period provided where additional reports are introduced.
- 11.5 The Switching Operator shall publish a list of reports that are available to Market Participants. This list shall include details of the types of Market Participant that can access each report and the associated costs.

Performance Measures

- 11.6 Reports showing performance against the Service Levels included in the Technical Specification shall be provided by the Switching Operator to the REC Performance Assurance Board each month.
- 11.7 Where performance falls below the required level, the report shall include an explanation for the failure and detail any mitigating actions that have been implemented; or are planned to be implemented to prevent further failures.

Appendix A – Change Advisory Board Decision - Appeal Proforma

[To be developed]