SCHEDULE XX

Switching Service Management Schedule

Version: 0.1 Effective Date: N/A

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

Draft for consultation – 15 October 2018

Change History

Version Number	Implementation Date	Reason for Change
0.1	N/A	Version agreed for industry consultation 15 October 2018

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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 cooperation 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 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 Panel.
- 1.4 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 of Market Participants for switching issues and information;
 - (b) communicating switching service information to Market Participants;
 - (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 Panel;
 - (h) education of Market Participants 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.
- 1.5 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.
- 1.6 The Switching Operator will provide an 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 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.
- 1.7 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.

2 Service Requests and Incidents

Process for Reporting

- 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 required by the Switching Operator.
- 2.4 Market Participants shall not raise Service Requests via telephone unless access via the Switching Portal and email is unavailable.
- 2.5 The Switching Operator will 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.
- (c) Second and Third Line Support Where the Switching Service Desk is unable to resolve the query, 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 provide the Switching Service Desk with progress updates and notifications when the Service Request or Incident has been resolved. The Switching Service Desk shall monitor and escalate Incident and Service Request resolution to ensure that the required timescales and Service Levels are met. The Switching Service Desk shall provide the reporting Market Participant with updates throughout the process, and provide the Market Participant with notifications when the Incident or Service Request has been resolved.

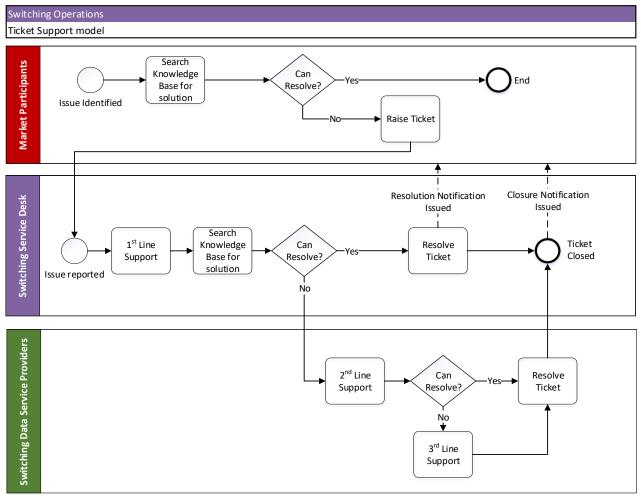


Figure 1 Switching Operations Support Model

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 (despite paragraph 2.4) 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 and the Switching Data Service Providers and Switching Network Service Providers.
- 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.
- 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, Market Participants, Switching Data Service Providers and Switching Network Service Providers shall be informed by the MIM, and the Major Incident closed.
- 2.14 The Switching Operator shall report each Major Incident to the REC Panel within [20] Working Days after resolution. The Switching Operator and shall conduct a review after each Major Incident to mitigate the risk of future Major Incidents with the same or similar route cause, and to identify opportunities to manage future Major Incidents more effectively. The Switching Operator shall report to the REC Panel 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 Panel within 1 Working Day.

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.
- 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 reoccurring 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 and notify the Switching Operator when a solution or suitable workaround has been identified.
- 2.19 Where a Market Participant, Switching Data Service Provider or Switching Network Service Provider raises an Incident that it believes is a recurring issue then it should be noted as such. Once the recurring issue has been confirmed the Market Participant, Switching Data Service Provider or Switching Network Service Provider 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 Market Participant, Switching Data Service Provider or Switching Network Service Provider shall be informed and the Incident closed.
- 2.20 In some instances, the Switching Operator may determine, in conjunction with any impacted Market Participants, Switching Data Service Providers or Switching Network Service Providers that the workaround should continue rather than implementing a permanent change. 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 The Switching Operator and its Switching Service Desk shall identify key aspects of the service that require monitoring. Switching Data Service Providers or Switching Network Service Providers shall apply (where possible) automated monitoring to services and or Systems that need to be controlled. The information captured by such automated monitoring shall be categorised to an agreed event matrix in order to ensure that events, alerts and notifications are given the appropriate response to ensure normal activities are maintained.
- 2.23 The Switching Service Desk shall be able to view the status and availability of the Switching Arrangements via a dashboard. The Switching Service Desk shall monitor the dashboard and identify outages or degradation of services.

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 Incident and Problem resolution;
- (e) access useful data and any diagnostic tools available;
- (f) access available 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 nominated Switching Portal Users acting on the Market Participant's behalf.
- 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 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 Panel 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, 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 such as Supplier of Last Resort arrangements and the update of Switching Domain Data.
- 3.9 Not all Switching Portal Users for a Market Participant will be able to undertake the full set of activities available to that Market Participant. Therefore, different roles within each organisation type shall be provided for.
- 3.10 The Switching Portal will be available at all times, except during planned or unplanned maintenance windows. The Switching Operator shall notify Switching Portal Users of any planned maintenance windows at least [X] Working Day before the outage, and the Switching Operator shall report on unplanned maintenance within [X] hours of the outage commencing.

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 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 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 Panel and (on request) the Authority;
 - (i) provide a daily 08:00 22:00 service to Market Participants for Service Request processing and Incident management and resolution; and
 - (j) provide a 24x7 service 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 Where Switching Data Service Providers and Switching Network Service Providers do not directly use the Switching Service Management System, the Switching Service Desk will

facilitate updates on behalf of the Switching Data Service Provider or Switching Network Service Provider.

5 Switching Network

- 5.1 [Details to be included setting out any requirements to enable Market Participants to gain access to the Switching Network.]
- 5.2 [Details to be developed on Switching Operator requirement to provide test environment for market participants and other parties to test the sending and receiving of messages with the CSS this is to be developed during DBT and will be subject to a CR to define the requirements.]

6 Switching Service Changes

- 6.1 The aim of this paragraph 6 is to provide a mechanism to govern and coordinate the implementation of 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 Switching Service Changes, to manage the implementation, to minimise the impact on service providers and Market Participants and to deliver agreed levels of service. The Switching Operator shall facilitate this change management function.
- 6.2 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 interfaces defined in the Technical Specification, will be progressed via the process in the REC Change Management Schedule.
- 6.3 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.
- 6.4 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.
- 6.5 The Switching Operator shall establish and manage a Change Advisory Board to assess the impact of changes on the Central Switching Service or other components of the Switching Arrangements.
- The terms of reference for the Change Advisory Board will be approved by the REC Panel; however, the Change Advisory Board will not be a Sub-Committee.
- 6.7 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.
- 6.8 Meetings of the Change Advisory Board will be convened each month. 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.
- 6.9 The Switching Operator shall classify each Request for Change as follows:

- (a) **Standard Change** Standard Changes are pre-approved Switching Service Changes affecting a single Switching Data Service Provider that:
 - (i) are considered relatively low risk;
 - (ii) are performed frequently; and
 - (iii) follow a documented process.

Once approved on a generic basis, individual Standard Changes will not be subject to Change Advisory Board approval; however, must be 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 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 a 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.
- 6.10 The Switching Operator shall develop and maintain a change management procedure document for approval by the Change Advisory Board and the REC Panel, setting out the detailed change process and examples of each type of change to aid classification.
- 6.11 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 document the evaluation results in a report to aid the Change Board consideration.
- 6.12 The Change Advisory Board may recommend improvements to solutions to ensure that amendments to services, processes and systems are completed efficiently with minimal disruption.
- 6.13 Where Change Advisory Board approval is required, members should work together to reach consensus. Where this is not possible, the Switching Operator shall determine whether a change is approved or rejected.
- 6.14 Any member of the Change Advisory Board may appeal a decision taken by the Switching Operator to the REC Panel within [10] 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 Appendix C. Where an appeal is raised, the REC Panel shall determine whether the implementation of a change approved by the Change Advisory Board should progress while the appeal is being considered.

- 6.15 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 REC Panel, together with a recommendation on whether a Change Proposal should be raised.
- 6.16 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.
- 6.17 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.
- 6.18 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. This will be used to identify potential conflicts and will feed into the switching service availability plan.

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 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 to ensure that this is within service limits.

8 Availability

- 8.1 The Switching Operator is responsible for coordinating change to maximise the availability of the Switching Arrangements for Market Participants.
- 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 agreed availability targets.
- 8.3 Switching Data Service Providers and Switching Network Service Providers 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 that require changes to this Code or other Energy Codes to the REC Panel;
- (g) escalate disputes between Switching Data Service Providers and/or Switching Network Service Providers relating to the Switching Arrangements to the REC Panel;
- (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 Panel 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);
- (j) develop an end to end business continuity and disaster recovery plan for the Switching Arrangements, and review this 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 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;
- (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
- (m) 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 will 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 reasonably requested by the Switching Operator 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 Service 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;
- (I) notify the Switching Operator of any changes to their Systems and processes that may impact the Switching Arrangements and submit a forward schedule of change to the Switching Operator each month highlighting the agreed and planned changes and maintenance activity;
- (m) 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;
- (n) 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;
- (o) proactively seek opportunities to improve the way the Switching Arrangements are delivered in order to implement agreed improvement initiatives in a co-ordinated manner;
- (p) understand demand for the Switching Arrangements and report exceptionally high demand that would breach service capacity tolerance to the Switching Operator to enable impact on service availability to be communicated to Market Participants;
- (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 with recommendations where capacity upgrades or downgrades should be carried out;
- (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 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 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 Panel in accordance with Paragraph 11.4.
- 11.2 Reports showing performance against the KPIs included in Appendix A shall be provided by the Switching Operator to the REC Panel each month and published on the Switching Portal.
- 11.3 Quarterly reports shall be provided by the Switching Operator to the REC Panel 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 Panel and (on request) the Secretary of State and/or the Authority. Changes to this list shall be subject to approval by the REC Panel 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 Appendix B shall be provided by the Switching Operator to the REC Panel 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 – Key Performance Indicators

[Draft KPIs have been included for visibility. These may be amended as the DCC procurements progress]

KPI	Explanation	
Service Availability	Availability of Services relative to the availability agreed in	
	Service Levels and Operational Levels	
Number of Service Interruptions	Number of service interruptions during a defined period	
Duration of Service Interruptions	Average duration of service interruptions during the period	
Number of Major Changes	Number of major changes during the period	
Number of Emergency Changes	Number of Emergency Changes implemented during the	
	period	
Number of Incidents	Number of incidents registered by the Service Desk by severity	
Number of Escalations	Number of escalations for Incidents not resolved in the agreed	
	resolution time	
Average Initial Response Time	Average time taken between the time a user reports an	
	Incident and the time that the Service Desk responds	
Incident Resolution Time	Average time for resolving an incident, by severity.	
Resolution within SLA	Rate of incidents resolved within SLA during the period	

Specific Service Request KPIs

KPI
Number of Service Requests by service type
Percentage of first time Request fulfilment (Resolved by SD)
Request fulfilment working duration by resolver group for each type of Request
Frequency in which tickets move from resolved to active
Percentage of Requests fulfilled within SLA
Estimated work effort for Request fulfilment per Request type
Number of access requests received
Percentage of password reset volumes per month
Percentage of new accounts provisioned
Percentage of verification of access requests received
Percentage of access rights provided
Percentage of access rights removed or restricted

Specific Incident KPIs

KPI
Percentage of repeated Incidents with known resolution
Incident working duration by resolver group
Incidents which have been re-assigned between resolver groups more than 2 times
Frequency in which tickets move from resolved to working
Incident resolution time by Incident category
Percentage resolution rate for first time fixes (Resolved by Switching SD)
Percentage of Incidents resolved within SLA
Estimated work effort for Incident resolution per Incident category
Percentage of reassigned incidents

Specific Major Incident KPIs

KPI

Percentage of repeated Major Incidents

Percentage of Major Incident escalations

Percentage of Major Incidents by service

Average Service Desk response time from time a Major Incident is first reported

Major Incident resolution time

Percentage of Major Incidents resolved within SLA

Time taken to conduct a Major incident post-Incidence Response / Review

Time taken to identify a Major Incident

Time taken to coordinate major incident team response

Appendix B – Service Levels

[Draft Service Levels have been included for visibility. These may be amended as the DCC procurements progress]

	Description	Details		
Service Requests				
Severity 1	Critical priority request	Target Fulfilment Time: 24 hours		
Severity 2	High priority request	Target Fulfilment Time: 48 hours		
Severity 3	Medium priority request	Target Fulfilment Time: 3 days		
Severity 4	Low priority request	Target Fulfilment Time: 10 days		
Incidents	1			
Severity 1	A Category 1 Incident which prevents a large group of Market Participants from using Live Services. This will almost certainly be a Major Incident.	Target Resolution Time: 4 hours		
Severity 2	An Incident which has an adverse impact on the activities of participants, but the Live Service is still working at a reduced capacity.	Target Resolution Time: 24 hours		
Severity 3	An Incident which has an adverse impact on the activities of a participant, but can be reduced to a moderate adverse impact due to the availability of a workaround.	Target Resolution Time: 72 hours		
Severity 4	An Incident which has a minor or minimal adverse impact on the activities of a participant.	Target Resolution Time: 10 days		
Major Incidents				
1	A Category 1 Incident (Major Incident) which prevents a large group of Market Participants from using Live Services.	Maximum Resolution Time: 4 hours		
2	A Severity Incident that does not meet the criteria for a Severity 1 incident, but requires management by the MIM	Maximum Resolution Time: 24 hours		
System Mainten		1		
4	Number of planned outages the Switching Data Service Providers can undertake annually	Penalties for missing targets to be agreed		
5	Number of Working Days in advance of when the CSS Service Provider shall notify the Switching Operator of planned changes	Penalties for missing targets to be agreed		
Operational Change Management				
	Period when the CSS Service Provider shall undertake planned maintenance to the following CSS components: CSS Registration Service Address Service Switching Network Switching Interfaces			
	Switching Portal			

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Change Assessm	pent	
8	Number of Working Days by which the CSS	Penalties for missing targets
	Service Provider shall complete a preliminary	to be agreed
	impact assessment for a Standard Change	
1	Number of Working Days by which the CSS	Penalties for missing targets
	Service Provider shall complete a preliminary	to be agreed
	impact assessment for an Emergency Change	
15	Number of Working Days by which a full and	
	thorough impact assessment detailing any	
	implications of the proposed change(s) to CSS	
	and/or its components shall be provided by the	
	CSS Service Provider	

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Appendix C – Change Assessment Board Decision - Appeal Proforma

[To be developed]