RETAIL ENERGY CODE

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RTS DEEP DIVE

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FOR INFORMATION	This paper provides information on the activities of the REC Technical Service (RTS).
APPENDICES	**N/A**

1 OVERVIEW

This paper has been prepared to share with the REC PAB information on the REC Technical Service (RTS). It provides and overview of the service deliverables; drills into activities most closely associated with the remit of the PAB; and shares information on the continuous improvement activities of the RTS.

2 THE ROLE OF THE RTS

The REC Technical Service (RTS) forms part of the wider REC Code Manager service. The service is staffed by a mixture of energy Code Subject Matter Experts (SMEs) and system engineers, with the main deliverables of the service being:

System Delivery

- Digital Navigator – provision of a system which displays the digitised REC and Data Specification in a user friendly format, along with other information such as release information and market scenarios
- Energy Market Architecture Repository – provision of a repository which holds the digitised REC and Data Specification (provided in IBM Jazz)

- ERIN – provision of a tool which uses artificial intelligence to answer queries on the REC and associated documents
- Market Stabilisation Charge – delivery of the recently retired system used to calculate the Market Stabilisation Charge (MSC)
- Payment Levelisation - delivery of the system that calculates supplier levelisation payments, which adjusts costs between payment methods to make charges more equitable between prepayment and credit customers

Change Management

- Technical Design Authority – maintaining the integrity of the REC documents, products and services throughout the REC change lifecycle
- Release Management – implementation of approved legal text and data specification changes, including assurance of implemented changes
- Technical Change Lead – developing solutions for technical changes to the REC

Operational Process Delivery

- Provision of the Technical Assurance Team (TAT) - reviewing and approving deployment forms and incident reports covering the enquiry services (GES & EES).
- Committee Delivery – Operation of the Technical Expert Panel and Chair of the Switching Change Advisory Board (CAB) and Emergency CAB
- External Market Entry Testing – testing the ability of new parties to send and receive Data Transfer Network (DTN) flows
- Industry Guidance – provision of guidance, training and second line Service Desk support for technical aspects of the REC
- Data Management – maintenance of industry party data within the CSS; processing of prepayment unallocated transaction data and manging changes to meter product data

Other

- Technical assessment of derogation and sandbox applications
- Delivery and maintenance of the RECCo Digitalisation Strategy
- Delivery and maintenance of the Codes Roadmap

3 ACITIVITY DEEP DIVE

In this section of the paper we drill down in the activities most closely associated with the remit of the PAB.

3.1 DEROGATION AND SANDBOX APPLICATIONS

Each derogation and sandbox application is reviewed by RTS for its technical impacts prior to submission to the PAB. This assessment includes validation of the technical aspects of the

problem and proposed solution; identification of services potentially impacted by the proposal; and a view on any conditions that should be applied.

To give an example, for the current OVO Robotics application, RTS's review of the application resulted in it being resubmitted to address the following concerns:

- The derogation was incorrectly requested against the EES Service Definition, rather than the SDES Service Definition
- The original derogation request gave limited information about how the robotics would be used, limiting the ability to fully understand the impacts (e.g., how will the system be accessed; which SDEP process types would it be used for; for cases raised would there be one SDEP communication per MPAN or attachments with multiple MPANs).

In addition, we recommended that a condition be put on the derogation that reflecting that permitted robotic volumetrics cannot be guaranteed for the duration of the derogation and may need to be revised (e.g., if multiple other parties apply for similar derogations).

3.2 TECHNICAL ASSURANCE TEAM

The RTS Technical Assurance Team (TAT) supports with change to the Gas Enquiry Service (GES) and Electricity Enquiry Services (GES) for releases and incidents, through monitoring implementation of change and issue resolution. The scope of the service includes:

- Service Affecting Deployments – review of the GES/EES Service Provider deployment plans; seeking clarifications; approving/rejecting deployment based provided clarifications; maintaining a calendar of known planned Service Affecting (and non-service affecting) deployments; and reviewing the outcomes of deployments.
- P1/P2 GES/EES Incidents – receive notifications of ongoing and resolved incidents; review incident reports and provide feedback; and ensure Service Providers take steps to include any required permanent fixes related to the incidents into their forward work plan.

3.3 P1 INCIDENT INVOLVEMENT

The CSS P1 incident had far-reaching consequences for many of the users of the CSS system.

RTS monitored the events of the resolution to the P1 through the Switching Operator Issue Forum (SOIF) meetings and subsequently supported the lessons learnt exercise with RECCo alongside the other Code Managers. RTS has made recommendations to support the avoidance of such events in the future. Currently RTS is involved in the development of REC changes designed to support the users of the CSS should an event arise where switching messages once again become compromised.

3.4 TECHNICAL CHANGE

Changes that affected the REC's systems and Service Providers tend to have greater levels of complexity than legal text only changes. RTS leads on solution development for technical REC Change Proposals and our code SMEs apply a number of means to ensure that technical solutions are sensible, well developed and appropriately impact assessed, including:

- We run a weekly Technical Change workshop with attendees from across the Code Manager, RECCo, REC Service Providers, and key service providers to REC Parties. The purpose is to review current and upcoming change activity to discuss solutions, requirements and impacts, so that there is a consistent understanding of issues, timelines and expected deliveries, and an opportunity to raise questions and share information.
- We work closely with REC Service Providers to define requirements before Impact Assessments are formally issued and get relevant stakeholder input early. Front ending the work in this way helps to ensure the change process runs smoothly and any issues are identified as early as possible.
- We ensure all Data Specification changes (including non-REC owned Data Specification changes) are reviewed against a check list to maintain quality and reduce the risk of errors occurring. Example check list items include ensuring the Logical, Physical and Decimal lengths are correct and that the Data Type and Data Type Format are valid categories within the Standards Definition Document.

As part of our Technical Change role, we also review REC Service Provider Impact Assessments and challenge where necessary. These reviews look at the approach to delivery of the solution (e.g., is the solution approach sensible? Is it cohesive with the wider changes associated with the CP? Does it make use of existing functionality where feasible? Is the test plan reasonable? Are the associated costs reasonable?)

3.5 SWITCHING CAB AND ECAB

The Switching Change Advisory Board (CAB) and Emergency CAB are meetings administered by the Switching Operator and chaired by RTS. Support for the ECAB is provided 24hrs a day. At these meetings Switching Service Providers bring imminent operational changes for a go/no go discussion. This ensure no planned changes will clash or put another service providers SLA's under pressure.

4 SERVICE IMPROVEMENTS

RTS is committed to continuously improving the service delivered. In this section, we outline improvement projects that are currently underway.

4.1 ERIN UPGRADE EXPLORATION

In October 2023 we launched ERIN, which uses a combination of OpenAI and Azure Cognitive Search (ACS) to provide users of the REC with a new means of engaging with the code to identify the information they need. ERIN is It is capable of digesting thousands of pages of complex material, to provide users with clear, conversational, and understandable information on REC products.

Artificial Intelligence is a fast moving technology, with new tools, patterns and capabilities regularly becoming available. As such, we are currently undertaking a project to identify potential upgrades to ERIN that will enhance question responses and users engagement with the tool. The scope of the project includes:

- Experimentation - Applying upgraded back-end approaches to delivery of question responses (to both pre-processing and processing activities) and validating the extent to which answer quality is improved. Consideration points will cover answer accuracy/quality and speed. Experimentation will be based on rapid prototyping and include activities such as comparing the approach to document selection between ChatGPT3.5 and ChatGPT4o and the resulting impact on the quality of answers provided.
- User analysis - review of the questions that have been asked of ERIN since launch and the associated feedback on the responses. This will include the ways in which questions are phrased and whether they in line with our expectations for the model and the quality of the answers provided.

The results of this exploritory work will be used to inform the next steps for ERIN.

4.2 USER EXPERIENCE

In conjunction with RPS, we are currently undertaking a project to enhance the user experience of the Digital Navigator (RTS led) and REC Portal (RPS led). The intent of this project is to deliver an improved and congruent experience between these two systems, with the layout updated to be intuitive and user friendly.

We are interviewing Digital Navigator users to understand how they currently use the service and gather thoughts on what improvements could be made. If any PAB members would like to share their experiences and feedback, we would welcome this input. This would involve a 1 hour remote interview with topics covering areas such as the Data Specification, Digitised code Schedules, Change and Release Management, Code Road Map and Market Scenarios. The insights gained would help shape the future design of the Digital Navigator.

4.3 SYSTEM ENHANCEMENTS

In addition to the improvements delivered under the UX project, we are also updating the Digital Navigator system from a technical perspective to increase the speed at which pages load and to provide an enhanced search function.

5 PAB ACTION

PAB Members are invited to take the following actions:

- **NOTE** the contents of this paper; and
- **ADVISE** if any PAB member would like to be interviewed for the Digital Navigator User Experience project.