R0224 – AGILE REPORTING WITHIN CSS

BUSINESS CASE ASSESSMENT

1. CHANGE PROPOSAL SUMMARY

As part of the impact assessment process for R0115, it was identified that it is very costly and time consuming to make new or amended reporting changes within the CSS architecture. As such, the Code Manager would like to implement a functionality which allows agile reporting within the CSS ecosystem, by creating a functionality that consolidates all necessary data into a single, centralised database.

The Code Manager has managed previous REC Changes that demonstrate the assertions relating to time and cost made above. R0115, for example, took over one year and six months from the change request being raised, to implementation, at a total cost of £126,307.64 for design, build, test and deployment. As such, end-users of the reports can potentially experience major delays on operations that rely on timely data. This can lead to frustration and decreased satisfaction.

Each request for report generation at present diverts significant time and resources away from other changes being progressed and implemented. These resources could be better utilised elsewhere and the current system's demands on time and money may divert resources from other strategic initiatives or innovations.

2. BACKGROUND

R0224 has been discussed in three Technical Change Workshops (TCWs), held on 1 October 2024, 5 November 2024, and 11 February 2025.

An initial Preliminary Impact Assessment (PIA v1.0) was initiated in January 2025. The response included 11 additional requirements identified by the CSS Provider that were not documented in the original PIA request. Notably, 10 of these were out of scope for the proposed change and were therefore not expected to be addressed. As a result, the response exceeded the intended scope, prompting the Technical Design Authority (TDA) to revise and further simplify the original requirements.

A second iteration, PIA v2.0, was triggered in March 2025. A walkthrough was conducted on 27 March, followed by a partial response from RTS on 28 March. This version also introduced several new requirements.

Subsequently, PIA v3.0 was completed, with a walkthrough held on 24 April. RTS provided comments clarifying requirements which were not in scope and returned the document to the CSS Provider on 7 May. A playback session of the CSS Provider's response to RTS's comments took place on 3 June 2025. The final version, PIA v3.1, incorporating responses to RTS's feedback, was submitted on 5 June.

A closed technical change workshop took place on the 17 June 2025 attended by the Switching Operator. The objective of the session was to review the requirements identified during the Preliminary Impact Assessment (PIA) and agree on the next steps toward the Detailed Impact Assessment (DIA).

Initial responses to the DIA were received in August 2025. Following clarification and re-drafting of requirements, costs and timelines, the finalised DIA was published in November 2025.

Following the DIA, further solution refinement took place on the overall end-to-end basis of the solution.

The main change made during this refinement was for the E2E solution to be split into two separate REC Change Proposals. R0224 will continue to implement the CSS Replica database and also include the associated connected PowerBI element and enduring FTE costs associated to report generation and maintenance. However, a new Change Proposal will be raised which builds it's solution on how Users can request new CSS Reports via the REC Portal.

The splitting of the solution into two parts means that a separate CP will be raised. This will not impact the projected timelines and ultimate implementation date of R0224 as it would be intended for both change proposals to be implemented at the same time.

3. SOLUTION

The key principles for the new agile reporting function are below:

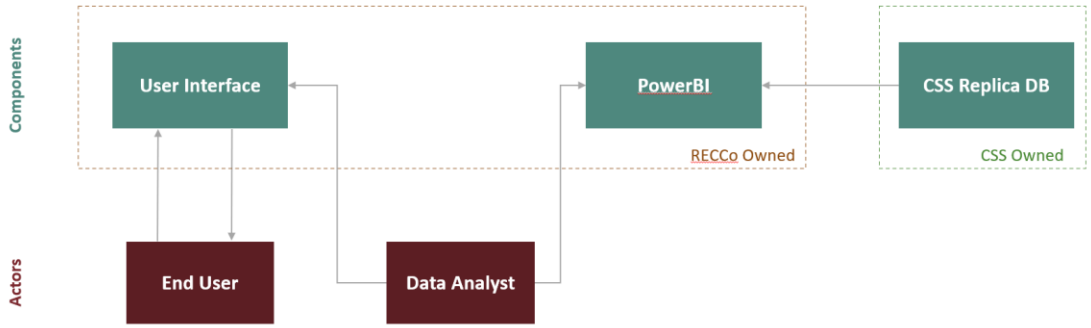
1. **CSS-governed database(s) that hosts all CSS data**

A read only replica database(s) will be established to host all CSS data, ensuring seamless access for reporting purposes. These databases will allow the reporting service to query data efficiently, enabling on-demand report generation via Power BI. All tables and columns from CSS will be made available. This is defined as all data within the reporting tables as well as the raw JSON files.

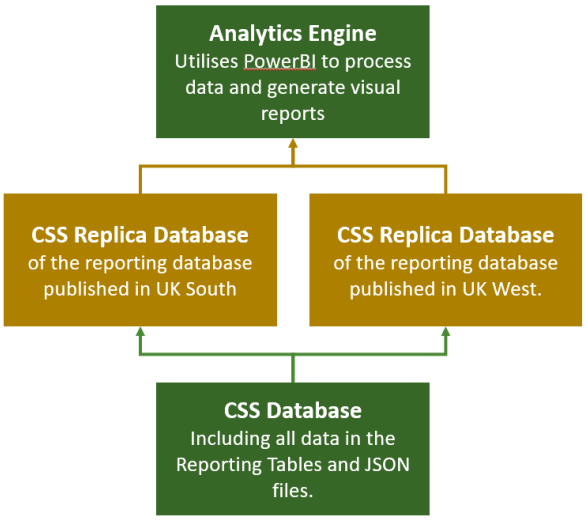
The CSS Provider will host and maintain the database(s), with RECCo subscribing to this service rather than hosting the data locally. Data will always be accessible (99.9% or higher availability), without restrictions on service hours or availability. To maintain operational stability and prevent any impact on existing Service Level Agreements (SLAs), the data available to query will be a copy of the CSS database rather than the production environment itself and will be refreshed multiple times daily ensuring appropriate data is available.

For the avoidance of doubt, all data is defined as all data items held in the CSS reporting tables and JSON files and that are held within the CSS infrastructure.

The proposed solution is illustrated in the below diagram. It should be noted that the “User Interface” aspect will be raised in a separate Change Proposal, this diagram however provides an overview of the end-to-end solution as a whole.



See the proposed Replica Databases Structure Below:



2. Easy access to data

All CSS Registration data will be made available to query. Therefore, there will no longer be a requirement for a REC Change to be raised when a User requires a new CSS Report. Instead, Users will be able to contact the REC Code Manager (solution established outside of R0224) with reporting requests to be fulfilled.

A category 3 document will be developed by the CSS Provider containing all data attributes, structures and tables. This document will be owned by the CSS Provider with any changes being progressed through the REC Category 3 change process before they are implemented. No schema changes will be implemented, unless there is an approved Category 3 REC Change awaiting implementation.

3. Current reports will remain with CSS

All existing reports will remain under the management of the CSS Provider, with no changes to their delivery methods or associated BAU costs.

There will be no changes to existing ServiceNow services as part of this implementation, and all current services will continue as they are.

For the avoidance of doubt, existing reports are defined as the current reporting activities which the CSS Provider undertakes.

4. **RECCo/REC Code Manager will be responsible for the creation of all future reports**

RECCo and the REC Code Manager will take responsibility for the creation and governance of all new reports. Any prioritisation, approval, or implementation of new reporting requests will be managed by RECCo and REC Code Manager and will fall outside the scope of the CSS Provider. The REC Code Manager will also handle the distribution to the intended recipients.

For the avoidance of doubt, new reports are defined as any reports which are not currently produced by the CSS Provider.

There will be no direct costs associated with any new CSS reporting requests or the ongoing maintenance of reports generated.

5. **Access control will be managed**

RECCo and the REC Code Manager will manage the access control with a single service account being created by the CSS by which the associated data can be accessed and queried.

There will be several Security and Compliance Measures put in place to ensure the secure running of the service. This includes:

- **Role-Based Access Control (RBAC)** – Preventing unauthorised access
- **Data Retention Policy** – Ensures reports are stored/removed per industry regulations
- **Audit Trail & Logging** – Tracks report requests, modifications, and downloads
- **Regulatory Compliance** – Ensuring alignment with RECCo and industry standards

The overall aim is to establish a **structured**, **transparent** and **efficient** reporting service, of which the governing principles are defined below:

- **Transparency** – Establishing clear criteria for users regarding report requests, approvals, and delivery timelines.
- **Consistency** – Standardised templates and processes to ensure uniformity in reporting.
- **Security & Compliance** – RBAC and compliance with GDPR and data protection laws, along with audit logs.

- **User-Centric Approach** – Tailored reports, intuitive request form and easy to navigate platform.
- **Efficiency** – Automated report generation where possible, with streamlined workflows.
- **Auditability** – Full traceability of report requests, access logs, and report modifications.

6. **New Responsibilities per role**

This change will mean that the services are impacted in the following ways:

- **CSS** – Owner of the data used for the reports.
- **RECCo and REC Code Manager (RTS)**– Develops and maintains the reporting platform, responsible for building, updating, and maintaining reports.
- **Market Participants** (Ofgem, Suppliers, CSS Users etc.) – Consumers of reports with role-based access.

The below table details the new responsibilities which each role will take on as part of R0224:

Roles	Responsibilities
CSS Provider	Provides raw data for reports
Reporting Service Team (RTS)	Maintains platform, builds reports, ensures SLAs
Data Analysts (RTS)	Develop and update reports based on approved requests
End Users (Market Participants, RECCo, etc.)	Request and access reports based on permissions
Reporting Committee	Defines rules for report creation, access, and changes

7. **Any request to amend the above principles or requirements for a specific report will need to be done via the Change Process (through a Change Request)**

Any requests to amend these principles or requirements for specific reports will be handled through the formal change request process.

4. BUSINESS CASE FOR IMPLEMENTING R0224

In the past, such as during the Impact Assessment Process for R0115, it has been identified that making reporting changes within the CSS is very costly and time consuming. This shows that Reporting is currently a very inefficient process within the CSS, which can hold up other business critical operations should they be reliant on the data held within a requested report. For example R0115 cost £126,307.64 for the Design, Built and Test phases, and took over 1 year and 6 months to be implemented. R0224 seeks to address this issue, making report generation both cost effective and quick.

The implementation of R0224 will remove this costly and time-intensive process, allowing users to request the generation of and access reports within a much shorter window of time (exact SLA's are not predicated given the nature of different reporting requests).

It is expected that the volume of requests for reports through the CSS will increase once this solution is implemented. This is because the implementation of R0224 will be the first time that custom reports will be offered with a fast turnaround time. Users who would have previously benefitted from a report but could not wait the lengthy amount of time it took to generate will now be able to request reports readily, meaning that volume of reports generated should increase.

Design, Build and Test Costs:

Design Phase Costs:

- Total: £236,714.62

Build Costs:

- Total: £131,462.09

Testing Costs:

- Total: £82,824.13

Total costs: £450,460.84

Aiming for a March 2027 implementation date.

Whilst there are no costs associated with individual report requests, there are additional ongoing costs to manage the associated systems and functions. These are quantified as below:

Ongoing associated functions	**Annual Cost (£)**
MS Azure (CSS Replica Database)	£216,000
Power BI (5GB) Reporting function*	£12,444
Report generation and maintenance	£110,000
TOTAL annual ongoing cost	**£338,444**

**The total capacity for utilisation of the Power BI function is based upon current projections of reporting requests and processing requirements, should there be a requirement to upgrade this capacity in the future, further costs would be attributed.*

Due to the current cost of report generation, based upon a standard value (as reflected under R0115 which cost £126,307.64), R0224 will have delivered **value for money if 3 or more reports are generated per year.**

It is expected that the new functionality will drive demand to meet this 3 reports per year threshold, therefore justifying the ongoing costs of the R0224 solution.

Conclusion:

R0224 makes report generation faster, cheaper, and more efficient for Users, additionally freeing up resources within the CRS for system improvements.

The key benefits of R0224 can be summarised as below:

- Allows requests to deal with increased future demand for report generation
- Reduces the ongoing high cost of report generation
- Greatly increases the speed in which reports can be generated
- Ensures that resources are not ill-placed generating reports instead of progressing other changes to improve the CSS
- Due to the current high cost of generating reports, the solution will pay for itself if 3 reports are generated per year.
- Near real-time reporting will be available to CSS Users for the first time, meaning that the functionality and usefulness of the CSS will be greatly enhanced.