

Bond CCP & Repo Reporting Reform Project

Testing Approach

25 March 2026

JSE | CLEAR

let's connect

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The aim of this market session is to align all stakeholders on the Bond CCP & Repo Reporting Reform testing phases, key responsibilities, and the actions required to ensure full market readiness for a stable and coordinated go-live.

In this session, our objective is to provide:

- A high-level overview of the testing phases and outline expectations for market readiness.
- Define the key responsibilities of Clearing Members, Trading Members, CSDPs, Strate, Information Subscribers and Software Providers across each phase of testing.
- Align all stakeholders on the critical exit criteria required to progress through each testing stage.
- Highlight major dependencies, including system readiness, Software Provider delivery, and internal process changes.

Overview of Testing Phases & Key Objectives

TESTING PHASE	DATES	PHASE	KEY OBJECTIVES
Phase 1 Technical Integration & Preparation	02 Mar–30 Jun	Technical readiness	<ul style="list-style-type: none"> • Deployment of the Bond CCP & Repo Reporting Reform code and establish technical connectivity in CTS. • Stakeholders complete all software/systems development; <ul style="list-style-type: none"> ○ internal development ○ SWP development ○ complete & pass conformance testing. • Confirm JSE Clear–Strate integration and settlement messaging formats and flows. • Confirm JSE Clear–Strate-CSDP integration and settlement messaging formats and flows.
Phase 2 Stakeholder Internal Testing & Clearing Member Parallel Run Testing	18 May–24 Jul	Participant readiness	<ul style="list-style-type: none"> • Stakeholder internal testing allow participants to test their systems/software before end-to-end testing commences. • Clearing members run simulated daily activities in the parallel environment. • Validate all critical issues are resolved before moving to ETE testing.
Phase 3 Market End-to-End Testing	27 Jul–16 Oct	Market validation	<ul style="list-style-type: none"> • Execute full market ecosystem validation across participants through Cycles 1-3 • Confirm all workflows function end-to-end i.e.; trading, clearing, margining, settlement etc. • Validate fixes from earlier cycles and ensure no critical or high-priority issues remain.
Phase 4 Market Acceptance Testing & Dress Rehearsals	19 Oct–07 Nov	Final readiness	<ul style="list-style-type: none"> • Complete final targeted testing of all business processes. • Obtain final participant readiness sign-off • Conduct go-live market dress rehearsals to establish connection to JSE production environment.

Phase 1 – Technical Integration & Preparation

Phase 1 focuses on establishing the technical foundation within the CTS environment by completing essential system and interface upgrades and validating early integration and settlement flows, ensuring the market is fully prepared to progress into subsequent testing phases.

Software Providers

- Maintain ongoing communication with clients to ensure delivery timelines are tracked and met.
- Develop and test required system/software updates.
- Complete and pass conformance test.
- Deliver system/software to clients.
- Provide documentation and guidance to clients on new system features and/or configuration changes.
- Promptly address any issues identified.

Strate (CSD)

- Update CSD systems to accept settlement instructions from the CCP.
- Test and validate swift message formats and settlement flows with JSE Clear for cleared trades.
- Support regression testing of message formats and settlement flows with JSE for non-cleared trades.
- Support JSE Clear & CSDP's during early settlement tests.

CSDPs

- Load new JSE Clear BPIDs
- Participate in early CCP settlement testing by committing to trades and establishing back-to-back links.
- Participate in regression testing for non-cleared trades.

Clearing Members

- Track SWPs and internal delivery teams timelines against agreed delivery plan to ensure delivery timelines are met.
- Prepare relevant test cases for upcoming phases.
- Deploy Bond CCP system/software updates in test environment.

Trading Members (Primary Dealers)

- Nutron API users to track SWPs and internal delivery teams timelines against agreed delivery plan.
- Prepare relevant test cases.
- Deploy Bond CCP system/software updates in the test environment.
- The updated Nutron front-end version is available for download, PDs using the front-end may commence early testing.

Trading Members Cash Bonds (Reported Market)

- Nutron API users to track SWPs and internal delivery timelines against agreed delivery plan.
- Prepare relevant **regression** test cases.
- Deploy system/software updates in the test environment.
- The updated Nutron front-end version is available for download, TMs using the front-end may commence early regression testing.

Trading Members (Interest Rate Derivatives)

- Nutron API users to track SWPs and internal delivery timelines against agreed delivery plan.
- Prepare relevant **regression** test cases.
- Deploy system/software updates in the test environment.
- The updated Nutron front-end version is available for download, TMs using the front-end may commence early regression testing.

Bond Trading Members (Classic/Triparty Repos)

- Non-mandatory testing for members using this functionality.
- Members should closely monitor their software development timelines to ensure alignment with the overall delivery plan.

Information Subscribers

- Users with direct connections to the Nutron API is required to assess their message usage and update their systems if impacted by the API changes.

Exit Criteria

- All Software providers passed conformance test in CTS.
- Early CCP settlement tests with Strate & CSDP's were successfully completed.
- Any critical defects identified in Phase 1 have been corrected.
- JSE Clear confirms Phase 1 objectives are met and formally advises Phase 2 to commence.

Phase 2 – Internal Testing & Parallel Run

Participants confirm internal and operational readiness by validating their systems, processes, and CCP functionality.

Clearing Members complete full end-to-end workflow tests and simulated parallel runs.

Phase 2 – Stakeholder Internal Testing & Clearing Member Parallel Run | Participant Responsibilities

Software Providers

- Assist participants in resolving any issues identified during internal tests.
- Release patches or configuration updates as required.

Strate (CSD)

- Provide technical and operational support during participants' testing.

CSDPs

- Provide technical and operational support during participants' testing.

Clearing Members

- Run internal tests of all workflows with the CCP and resolve any issues.
- Participate in parallel run testing validating that all processes, messages, and system interactions function correctly.
- Finalize and document internal procedures for CCP processes.



Phase 2 – Internal Testing & Clearing Member Parallel Run | Participant Responsibilities

Trading Members (Primary Dealers)

- PDs to trade on the ETP market and book cleared trades on the Nutron front-end/API.
- Confirm ETP trades are received in Nutron front-end/API (if applicable).
- Verify all functionality works as expected.
- Ensure all integration points are validated.
- Work with software providers and/or internal teams to resolve any issues.

Trading Members Cash Bonds (Reported Market)

- Perform regression testing on integrated systems to ensure the Bond CCP changes do not affect existing Bond and Buy-Sell-Back Repo trading and settlement processes.

Trading Members (Interest Rate Derivatives)

- Perform regression testing on integrated systems to ensure the Bond CCP changes do not affect existing derivative trading and clearing.

Bond Trading Members (Classic/Triparty Repos)

- This is non-mandatory testing for members using this functionality.
- Test the functionality and enhancements included in the software release.

Information Subscribers

- Users with direct connections to the Nutron API who are impacted by the API message changes are required to run a series of tests to ensure their systems remain fully functional.
- Users with direct connections to the Nutron API and are not affected by the API changes are required to perform regression testing.

Exit Criteria

- Participants completed their internal test scenarios with no high-priority issues outstanding.
- Clearing member parallel run results confirmed that core clearing, margining, and settlement processes function correctly and there are no critical bugs outstanding.
- All Participants are ready to commence end-to-end testing.
- JSE Clear confirms Phase 2 objectives are met and formally advises Phase 3 to commence.

Phase 3 – Market End-to-End Testing

The Market End-to-End Testing phase conducts three full test cycles involving all market participants to validate the complete trading, clearing, margining, and settlement lifecycle under CCP conditions, ensuring that daily CCP processes run smoothly, and any issues are resolved and re-tested, ultimately confirming market operational and technical readiness for the transition to market acceptance testing.

Software Providers

- Confirm that all previous issues reported by clients have been resolved
- Provide support to clients throughout this phase.

Strate (CSD)

- Perform daily operational activities of a CSD.

CSDPs

- Perform daily operational activities of a CSDP.
- Ensure back-to back links are tested exactly as they would operate in a live production environment

Clearing Members

- Perform full daily clearing operations for the duration of the 3 test cycles.
- Ensure daily reconciliation with CCP.

Trading Members (Primary Dealers)

- Simulate realistic trading patterns on the Bond ETP and Nutron Reported markets. Ensure Reported market trades are flagged as 'cleared'.
- Ensure all ETP trades and cleared Reported market trades are margined & correct fees calculated at end-of-day by your Clearing member.
- Ensure settlement of cleared trades.
- Ensure reporting received from your Clearing member is as expected.
- Ensure final verification is completed and all critical business processes are working as expected.

Trading Members (Cash Bonds Reported Market)

- Perform regression testing on integrated systems to ensure the Bond CCP changes do not affect existing Bond and Buy-Sell-Back Repo trading and settlement processes.

Trading Members (Interest Rate Derivatives)

- Perform regression testing on integrated systems to ensure the Bond CCP changes do not affect existing derivative trading and clearing processes.

Bond Trading Members (Classic/Triparty Repos)

- This is non-mandatory testing for members using this functionality.
- Test the functionality and enhancements included in the software release.

Information Subscribers

- Users with direct connections to the Nutron API who are impacted by the API message changes are required to run a series of tests to ensure their systems remain fully functional.
- Users with direct connections to the Nutron API and are not affected by the API changes are required to perform regression testing.

Exit Criteria

- Successful end-to-end testing: planned scenarios were executed across all cycles.
- Any issues found in Cycle 1 were fixed and verified in Cycle 2, for final verification in cycle 3.
- No critical or high-priority defects remain outstanding at the conclusion of Phase 3.
- JSE Clear and all stakeholders confirm that they are technically and operationally ready to proceed to market acceptance testing.

Phase 4 – Market Acceptance & Dress Rehearsals

Market Acceptance Testing consists of two focused cycles designed to verify all daily trading, clearing, margining, and settlement functions.

This is followed by two Market Dress Rehearsals, during which participants must complete connectivity tests to the JSE production environment.

Successful completion of both rehearsals together with final readiness sign-offs confirms that the market is technically and operationally prepared to transition to CCP clearing, marking the final milestone before the Bond CCP launch.

Phase 4 – Market Acceptance Testing & Dress Rehearsals | Participant Responsibilities

Software Providers

- Ensure all participants have deployed and are running the final software release.
- During dress rehearsals, ensure there are no remaining technical issues when transitioning to production.
- Have support teams available for the go-live weekend and initial trading days.

Strate (CSD)

- Participate in acceptance testing by performing daily operational activities of a CSD.
- Ensure that final verification is completed and all critical business processes are working as expected.

CSDPs

- Participate in acceptance testing by performing daily operational activities of a CSDP.
- Ensure that final verification is completed and all critical business processes are working as expected.

Clearing Members

- Participate in acceptance testing and ensure that final verification is completed and all critical business processes are working as expected.
- Participate in dress rehearsals i.e. connectivity test.
- Prepare for go-live coordination and software upgrades in production.

Phase 4 – Market Acceptance Testing & Dress Rehearsals | Participant Responsibilities

Trading Members (Primary Dealers)

- Participate in acceptance testing by simulating realistic trading patterns on the Bond ETP and Nutron Reported markets. Ensure Reported market trades are flagged as 'cleared'.
- Ensure all ETP trades and cleared Reported market trades are margined & correct fees calculated at end of day by your Clearing member.
- Ensure settlement of cleared trades.
- Reporting received from your Clearing member includes cleared trades.
- Ensure final verification is completed and all critical business processes are working as expected.
- Participate in dress rehearsals, booking of trades in Nutron to ensure trading system connectivity.
- Prepare for go-live coordination and software upgrades in production where applicable.

Trading Members (Cash Bonds Reported Market)

- Perform regression testing on integrated systems to ensure the Bond CCP changes do not affect existing Bond and Buy-Sell-Back Repo trading and settlement processes.
- Participate in dress rehearsals, booking of trades in Nutron to ensure trading system connectivity.
- Prepare for go-live coordination and software upgrades in production where applicable.

Trading Members (Interest Rate Derivatives)

- Perform regression testing on integrated systems to ensure the Bond CCP changes do not affect existing derivative trading and clearing.
- Participate in dress rehearsals, booking of trades to ensure trading system connectivity.
- Prepare for go-live coordination and software upgrades in production where applicable.

Bond Trading Members (Classic/Triparty Repos)

- This is non-mandatory testing for members using this functionality.
- Test the functionality and enhancements included in the software release.

Information Subscribers

- Users with direct connections to the Nutron API who are impacted by the API message changes are required to run a series of tests to ensure their systems remain fully functional.
- Users with direct connections to the Nutron API and are not affected by the API changes are required to perform regression testing.

Exit Criteria

Market Acceptance Test was completed with no critical or high-priority issues.

Two market dress rehearsals completed successfully.

Final signoffs received from stakeholders.

1

A hotline will be published along with a supporting document detailing the test approach.

2

Continuation of engagement sessions to ensure alignment during the testing phases.

3

Log any issues experienced in the CTS environment with our Customer Support team.

Thank you

Q&A

Should you have any questions or require further clarity please reach out to customersupport@jse.co.za

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Appendix

High-level stakeholder technical impacts

Clearing Members

Impact

- GCMS Updates
 - API changes
 - Implementation of the new risk methodology for cleared bonds & IRD market.
 - Changes to the daily account summary
- Other reporting and accounting changes
- Downstream integration
- Clearing agreements with primary dealers

Note:

- Required to cover client with stock if client cannot meet settlement obligations

Primary Dealers (PDs)

No impact to ETP trading

Impact

- ETP trades and status intimations available via Nutron API & Nutron front end
- Nutron API changes for the Reported market
- Margin and clearing fees via Clearing Member (using new margin methodology)
- Reporting changes
- Downstream system integration work

Trading Members (Non-PDs)

Impact

- Nutron API changes for Interest Rate Derivatives and Interest Rate Markets
- Updated Nutron front end

Software Providers

Impact

- Nutron API changes – **This applies to all Software providers that provide services for the IRD and IR market**

Information Subscribers

Impact

- Users with direct access to the Nutron API should assess the impact of the API changes on their systems.

STRATE

- No changes to the existing settlement model
- Gross settlement to continue in CCP model
- No changes to current swift message structures

Impact

- Strate will receive settlement instructions from JSE Clear
- ETP trades will be populated with the JSE Clear BIC code in the header of the settlement instruction message and a new BP ID will be assigned.
- IRC cleared trades will be populated with the JSE Clear BIC code in the header of the settlement instruction message and a new BP ID will be assigned.
- Strate to generate Strate trade leg no. for ETP trades using the same logic as is currently used in the reported market
- Bond ETP trades will now be received from JSE Clear (MTS link disabled)
- JSE Clear will send ETP trade cancellations directly to Strate
- Masking of counterparty on ETP trades will still be applicable
- Involvement of Strate in the event of a clearing member and trading member default.

CSDPs

- No change to the existing settlement model
- Gross settlement to continue in CCP model
- No changes to current swift message structures

Impact

- ETP trades will be populated with a new BP ID which is linked to JSE Clears BIC code XJSEZAJJSF2.
- IRC cleared trades will be populated with a new BP ID linked to JSE Clears BIC code XJSEZAJXSF1.
- Strate trade leg no. for ETP trades will use the same logic as is currently used for reported trades.
- SWIFT messages from Strate for ETP trades & IRC cleared trades will be populated with the Guaranteed Indicator = 'N'.
- Involvement of CSDPs in the event of a clearing member and trading member default (process change only).

Testing Timeline

Development & Testing

CTS



- 02 Mar to 27 Mar
 - JSEC integration testing with **Strate**
- 02 Mar to 30 Jun
 - Software Providers** Development & Testing
- 01 Apr to 17 Apr
 - CSDP Testing
- 01 May to 15 May
 - CSDP Testing
- 18 May to 10 July
 - Clearing Member** internal testing

Balancing Testing

PARALELL



- 06 Jul to 24 Jul
 - Clearing Member** Parallel environment alignment & testing

Full Market ETE Testing

CTS



- 27 Jul – 21 Aug
 - Cycle 1
 - All Participants**
- 26 Aug to 23 Sep
 - Cycle 2
 - All participants**
- 28 Sep to 16 Oct
 - Cycle 3
 - All participants**

Market Acceptance Testing

CTS



- 19 Oct – 30 Oct
 - Cycle 1
 - All Participants**
- 02 Nov to 13 Nov
 - Cycle 2
 - All participants**

Market facing Dress Rehearsals scheduled for 10 Oct & 07 Nov 2026.

Supporting documentation will be available to clients ahead of the commencement of these phases to ensure adequate preparation.

The following resources are available on our website [Bond CCP | JSE Client Portal](#)

- Market design presentations
- Market design recordings
- Risk documentation
- Bond CCP specification overview
- Bond CCP Clearing member reports specification
- Nutron API specification