

ASX Limited

Audit of the Special Report on support and maintenance of CHES

31 May 2023

LIMITATION

The findings contained in this Report are based on the findings of the report dated 31 May 2023 as prepared by Ernst & Young at the request of ASX Limited solely for the purpose of providing an assessment of the CS Facility Licensees' basis and approach to preparing the Special Report in accordance with the written notices pursuant to s823B(2) of the Corporations Act 2001, and is not appropriate for use for other purposes. This report is provided for information purposes only in order to provide details of the findings reported to the ASX Limited and should not be taken as providing specific advice on any issue, nor may this be relied upon by any party other than ASX Limited and ASX's regulators ASIC and the RBA. In carrying out our work and preparing this report Ernst & Young has worked solely on the instructions and information of ASX Limited, and has not taken into account the interests or individual circumstances of any party other than ASX Limited and ASX's regulators ASIC and the RBA. Ernst & Young does not accept any responsibility for use of the information contained in this report and makes no guarantee nor accept any legal liability whatsoever arising from or connected to the accuracy, reliability, currency or completeness of any material contained herein. Ernst & Young expressly disclaims all liability for any costs, loss, damage, injury, or other consequence which may arise directly or indirectly from the use of, or reliance on, this Report.

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1. Executive summary

Introduction

CHESS (Clearing House Electronic Subregister System) is the system used by ASX Clear and ASX Settlement (the “CS Facility Licensees” or “ASX”) as a core system to perform clearing, settlement and other post-trade services for the Australian equity market.

The statutory notice issued by the Australian Securities and Investments Commission (ASIC) on 14 December 2022 required the CS Facility Licensees to give a report to ASIC detailing how they will ensure that CHESS is adequately supported and maintained until the Go-Live of the CHESS Replacement System (“Special Report”).

The Special Report must address a number of Specified Matters with respect to the ongoing operation, security, continuity and governance arrangements of CHESS, and must detail implementation plans specifying the date by which any required arrangements will be in place (“Specified Matters”). ASX has issued the Special Report on 28 April 2023.

In line with the requirements issued by ASIC, the CS Facility Licensees must have the Special Report audited by EY (“Audit Report”).

Our Scope

In accordance with the written notices pursuant to s823B(2) of the Corporations Act 2001, ASX has engaged EY to review the CS Facility Licensees’ basis and approach to preparing the Special Report and assess whether the Specified Matters required by ASIC have been appropriately addressed. Refer to section 2.2 for Scope details.

Our Approach

Our activities included holding workshops to gain an understanding of the work undertaken by ASX to identify and assess the risks related to CHESS, conducting interviews with key stakeholders to understand the CHESS control environment and assessing the evidence used by ASX to support the statements documented in the Special Report.

Specifically, our approach has included an assessment of the outcomes obtained by ASX in relation to the identification and assessment of risks against EY’s normative framework and industry accepted practices in relation to security, continuity, operation and governance, as described in ASIC’s notice, with the objective of identifying any potential gaps in the coverage and/or depth of the assessments performed by ASX. Refer to section 2.3 for Approach details.

Conclusion

Based on our work performed, we found that:

- a. ASX’s Special Report has addressed the Specified Matters in relation to the support and maintenance of CHESS,
- b. The work undertaken by ASX supports the outcomes documented in the report, and
- c. ASX has conducted sufficient governance arrangements for the production of the Special Report.

Our Findings

- a. We assessed ASX's basis and approach to preparing the Special Report and assessed the extent to which ASX has addressed all the Specified Matters required by ASIC. Based on our work performed we found that the Special Report has addressed the Specified Matters in relation to the support and maintenance of CHES.

Our testing found that ASX:

- ▶ Identified and assessed risks related to the resilience, reliability, integrity and security as applicable to CHES.
- ▶ Provided details in the Special report on the Specified Matters related to the ongoing operation, security and continuity of CHES and the Licensee's governance arrangements.
- ▶ Identified actions aligned to the CHES risks to address the gaps identified which have been consolidated in an implementation roadmap ("CHES roadmap") of key initiatives with indicative dates for remediation.

- b. We assessed the supporting evidence and artefacts and assessed the work undertaken by ASX to support the outcomes documented in the Special Report. Based on our work performed we found that the work undertaken by ASX supports the outcomes documented in the report.

Our testing found that:

- ▶ The statements and conclusions included in the Special Report were supported by relevant assessments and evidence.
- ▶ Areas that require further assessment and analysis were acknowledged as a management action in the Special Report.

- c. We assessed the governance arrangements established by ASX for the production of the Special Report. Based on our work performed we found that ASX has conducted sufficient governance arrangements for the production of the Special Report.

Our testing found that ASX:

- ▶ Applied effective governance mechanisms and due diligence to their work.
- ▶ Established an attestation process for management and ASX Board members to confirm the validity and accuracy of the statements included in the Special Report, achieving the verification of the entirety of the report ahead of issuance.

The Special Report acknowledges that the CHES roadmap described is based on an assessment of CHES risks that were current at the time of report issuance. The ongoing assessment and analysis of current and emerging risks may surface the need for new initiatives, or scope changes to planned initiatives, as described in the CHES Roadmap over time.

The Special Report includes an action for a testing program to evaluate the design and operating effectiveness of key CHES operational controls. We agree this is an important activity and would expect ASX to initiate this within 90 days of issuance of the Special Report.

Our Recommendations

We have made three recommendations for ASX to continue to effectively identify and manage risks to the ongoing operation and maintenance of CHES:

1. The Special Report sets out risks as they relate to CHES, and related actions and roadmap initiatives to maintain within desired low risk appetite. We recommend ASX implements risk monitoring and reporting practices that incorporate ASX's views on CHES risks as now described in the Special Report.
2. Our assessment found opportunities to align current control environment to better local and global market practice, including the areas of business continuity and resilience, security and third-party management. We recommend ASX performs further deep dives into specific domain areas to expand the depth of the risk assessments completed to date.
3. In relation to the CHES Roadmap, we recommend ASX accelerate the formal development and implementation of the Assurance program over the CHES Roadmap as a priority. We recommend that the Assurance program should be formally established within the next 90 days and include a validation of both planned scope and delivered outcomes to assess whether they meet the desired risk objectives.

Note where ASX has identified a relevant risk and control uplift initiative in their CHES Roadmap, we have not raised it again as a recommendation in our Audit Report.

The work undertaken by EY is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

We acknowledge ASX for its cooperation in undertaking our assessment of the Special Report.

2. Introduction

2.1 Background

The purpose of the Special Report was to detail how ASX will ensure that CHES is adequately supported and maintained until the Go-Live of the CHES replacement system.

To demonstrate how CHES is supported and maintained, the Special Report considered four main themes: i) Operation; ii) Security; iii) Continuity and iv) Governance, which is in line with the Specified Matters outlined in ASIC's 14 December 2022 statutory notice. Acknowledging that Risk Management is a fundamental element that is pervasive across the other domains, the Special Report also included a section describing the risk management processes and governance structures underpinning the ongoing support and maintenance of CHES.

The Special Report highlighted a number of key risk areas and included a program of work ("CHES Roadmap") to enhance various aspects related to CHES with the objective of ensuring it remains operationally reliable until a new solution is implemented.

The Special Report also acknowledged that the CHES Roadmap will be informed by future risk assessments and adapted over time as needed to maintain ASX's low risk appetite for matters related to CHES.

2.2 Scope

In line with the requirements of the ASIC statutory notice and pursuant to s823B of the Corporations Act 2001, EY has been engaged to review the CS Facility Licensees' basis and approach to preparing the Special Report and assess whether the Specified Matters required by ASIC have been addressed.

Our scope of work has included the following:

- a. observe, inspect, test and provide an assessment on the extent ASX has addressed all the Specified Matters;
- b. provide an assessment on the work undertaken by ASX and as documented in the Special Report; and
- c. provide an assessment of the governance arrangements for the production of the Special Report.

We have assessed the approach proposed by ASX when completing the Special Report to evaluate whether it was adequately designed to address the matters requested by ASIC.

We have assessed the outcomes from the Special Report to evaluate whether it provides coverage of the breadth and depth to address all related matters specified by ASIC's statutory notice. We have considered current legislations and global better practices in relation to operational resilience and security (e.g., NIST, CIS, ISO22301, BCI GPG, etc). Additionally, while acknowledging that ASX is not an APRA regulated entity we have considered better practices being observed in financial services through the adoption of relevant APRA prudential standards such as CPS 234 (Information Security), and the proposed draft standard CPS 230 (Operational Risk Management).

Our assessment included the review of existing documentation, demonstrable evidence in place and the artefacts that ASX produced to support statements described in the Special Report. This included evidence supporting the effectiveness of processes and controls in relation to the ongoing operation of CHES system, the governance arrangements for the continuous monitoring and management of risks, remediation activities and forward-looking assessments that consider ongoing system functionality and capacity needs.

Refer to section 3 of this report for further details of the work performed and the outcome of our assessments.

2.3 Approach

In undertaking our assessment for the delivery of this report, the following activities were performed:

1. Documentation review. Detailed assessment of supporting evidence related to the Specified Matters, including papers and minutes of various management committees, working groups and Board meetings; Internal Audit Reports, attestations and self-assessments (for example, the security standards review); frameworks, policies and procedures; walkthrough samples of relevant processes and controls; CHES System Risk Assessments; registers of assets, risks, issues and action plans.

Refer to Appendix D for a list of documents reviewed.

2. Initial workshops and walkthroughs. A number of workshops have been conducted across every domain within the scope of the Special Report to gain an understanding of the detailed scope, walkthrough the processes and controls in place, the assessments performed and the outcomes obtained including proposed initiatives.

Refer to Appendix A for a summary of workshops held.

3. Stakeholder interviews. Stakeholders interviewed included ASX Group directors (in particular, the directors of the CS Facility Licensees and ASX Technology Board Committee), executives, program leads and three lines of defence staff, third party providers engaged by ASX as part of the production of the Special Report and third-party vendors engaged by ASX for the ongoing support of CHES.

Refer to Appendix A for a list of stakeholders interviewed.

4. Assessment of the coverage of the Specified Matters. Evaluation of the approach and scope proposed by ASX and comparison of scope breadth documented in the Special Report versus the topics included in the Specified Matters.

Refer to Appendix B for details of the assessment.

5. Assessment of the extent of work performed by ASX to address the Specified Matters. Our evaluation of the depth of the work completed by ASX has included the following:
 - a. Assessment of ASX's process to identify CHES risk profile and the outcomes obtained, including:
 - i. a comparison of the CHES risk profile against EY's Process Risk and Control library (EY PRC) to assess the completeness and appropriateness of the risks and controls identified for CHES.

Refer to Appendix C for the outcome of the analysis performed.
 - ii. an evaluation of enterprise-wide risks and risks associated to other ASX business divisions to identify any potential omissions from the CHES risk profile.
 - b. Assessment of ASX's process undertaken to assess risks applicable to CHES and outcomes obtained, including:
 - i. Analysis of the latest CHES system risk assessments performed by ASX.
 - ii. Detailed assessment of risks identified within the CHES risk profile, including the assessment of likelihood and impact of risks, associated issues and actions, risk accepted issues, associated controls and their effectiveness, and assessment of residual risk.

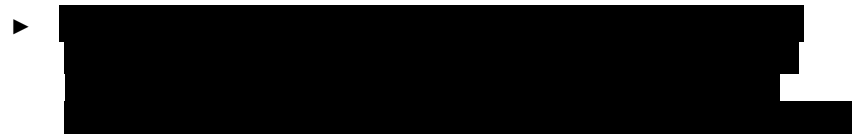
- c. Assessment of the coverage of the initiatives included in the CHESS roadmap against the issues raised as an outcome of the risk assessments performed.
6. Assessment of the governance arrangements including a walkthrough of the attestation tool. A walkthrough session was conducted to demonstrate the functionality of the attestation tool and the formal verification and attestation process that was conducted by ASX prior to finalising the Special Report.

2.4 Limitations

We draw your attention to the limitations inherent in this report:

- ▶ Our work was not performed in accordance with generally accepted auditing, review, or other assurance standards in Australia and accordingly does not express any form of assurance. This report does not constitute legal opinion or advice. We have not conducted a review to detect fraud or illegal acts.
- ▶ The work undertaken is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not express an audit opinion.
- ▶ Our work does not assume any responsibility for any third-party products, programs or services, their performance or compliance with your specifications or otherwise.
- ▶ Our work did not intend to identify, address, or correct any errors or defects in your computer systems, other devices, or components thereof, whether or not due to imprecise or ambiguous entry, storage, interpretation, or processing or reporting of data. We are not responsible for any defect or problem arising out of or related to data processing in any systems in relation to CHESS.

- ▶ Our review was limited to documents requested by EY and provided by ASX as considered relevant in line with the agreed scope and EY requests, with the expectation that ASX had those artefacts documented to satisfy its own governance arrangements and executive accountability needs.



2.5 Use and disclosure of our reports

We are providing specific advice only for this engagement and for no other purpose and we disclaim any responsibility for the use of our advice for a different purpose or in a different context. If you plan to use this advice on another transaction or in another context, please let us know and provide us with all material information so that we can provide advice tailored to the appropriate circumstances.

Our Reports may be relied upon by ASX and ASX's regulators ASIC and the RBA for the purpose outlined in the SOW dated 20 April 2023 only. We understand that ASIC and the RBA, and ASX may issue a media release and/or a public report referring to or publishing the content of our Reports and may make public or issue our Reports or a summary of the content of our Reports. We consent to ASIC and the RBA, and ASX publishing our Reports.

For the avoidance of doubt, no other party other than ASX, ASIC and the RBA may rely on the Reports. We disclaim all responsibility to any such other party for any loss or liability that the other party may suffer or incur arising from or relating to or in any way connected with the contents of our Reports, the provision of our Reports to the other party or the reliance upon our report by the other party.

3. Findings and Recommendations

This section of the report details the conclusions of the assessments performed over the Special Report produced by ASX, including any findings and recommendations.

3.1 Coverage of Specified Matters

The objective of this section is to evaluate the breadth of the work completed by ASX for the purpose of the Special Report.

We have understood and discussed the scope and approach proposed by ASX regarding the perimeter of technology assets and processes to be considered and we have conducted an assessment comparing the Specified Matters against the topics covered by the Special Report to evaluate whether they have been addressed.

For the purpose of the assessment conducted and the conclusions obtained in this section of the report, by “addressing” a particular matter we have considered if ASX has identified and assessed the associated risks to the matter and obtained a conclusion to inform potential actions that would help ASX to mitigate any risks identified. To clarify, our conclusion on addressing a matter included in this section does not include achieving full design and operating effectiveness on the controls related to that particular matter.

Our assessment did not identify any significant gaps with regards to the coverage of Specified Matters in the Special Report. Refer to the table in Appendix B for the results of the assessment performed.

Feedback provided through the review to ASX management in relation to the scope of technology components and processes to be considered in the assessment of risks related to the resilience, security, reliability and integrity of CHES have been addressed in the Special Report.

3.2 Extent of work undertaken

The objective of this section is to assess the extent of the work undertaken by ASX to obtain the outcomes documented in the Special Report.

Our assessment found that:

- ▶ The statements and conclusions documented in the Special Report were adequately supported by relevant assessments
- ▶ Areas that require further assessment and analysis were acknowledged as a management action in the Special Report
- ▶ The statements described in the Special Report were substantiated by appropriate supporting evidence.

The Special Report acknowledged areas of improvement, establishing initiatives to maintain the low risk appetite for matters relating to CHES. Our own assessment of CHES related risks concurred with the actions identified by ASX and identified opportunities to further uplift the maturity of current controls and capabilities.

Throughout the course of our assessment, feedback in relation to the extent of work undertaken was provided to management and addressed in the final Special Report.

The table below details the assessments performed and the conclusions we have obtained following the structure of the response provided by ASX within the Special Report: Operation, Security, Continuity, Governance and Detailed roadmap.

Extent of work undertaken by ASX

Specified Matter	Work performed	Findings
Operation	<ol style="list-style-type: none"> 1. We performed an assessment of the extent of work undertaken by ASX to support the statements included in the Operation section of the Special Report. Our assessment included the review of relevant artefacts supporting the description of the current state such as ASX's Delivery and Prioritisation frameworks, Enterprise Risk Management Framework, Risk and Control profiles, System Risk Assessments, Capacity Management and Key Indicators Reports, Performance Monitoring Dashboard, Volume Forecasts and the latest ASAE3402 Report on controls. 2. We conducted workshops and walkthrough meetings of the key processes and controls related to the operation of CHES, including those related to scalability, availability and performance, product management, change management and asset management. 3. We understood the process followed by ASX to identify and assess the risks applicable to CHES. We performed a comparison of CHES risk and control profile against EY's Process Risk and Control library (EY PRC) to assess the completeness and appropriateness of the risks and controls identified by ASX for CHES. Refer to Appendix C for the conclusions of the analysis performed over the CHES risk profile as documented in the Special Report. 4. We understood the process followed by ASX to perform system risk assessments for CHES. We performed a detailed review of the risks considered within the CHES risk profile, including the assessment of likelihood and impact of the risk, associated issues and actions, risk accepted issues, associated controls and their effectiveness, and assessment of residual risk. 5. We assessed how risk assessment outcomes are reported through various monitoring forums including Board Committees 	<p>1, 2) Our assessment found that the work undertaken by ASX to obtain the outcomes documented in the Special Report in relation to Operation was: (a) supported by relevant assessments, and (b) substantiated by relevant evidence.</p> <p>3) Our assessment did not identify any significant gaps with regards to the coverage of CHES risks obtained from the risk identification processes undertaken by ASX.</p> <p>Many of the risks relevant for CHES are common across a number of business systems support the Clearing and Settlements. In preparing the Special Report, ASX completed a manual, one-off exercise to identify and extract from their enterprise risk management system (ERICA) the key risks applicable to CHES. ASX intends to maintain a CHES specific risk view going forward, in addition to the existing risk profiles, for central visibility and ease of management. ASX should implement risk monitoring and reporting practices that incorporate ASX's views on CHES risks as now described in the Special Report.</p> <p>4, 5) We acknowledge that ASX has utilised its own risk management methodologies to support the conclusions obtained (inherent and residual risks, findings and actions) as described in the Special Report. Our assessment did not identify significant gaps in ASX obtaining appropriate outcomes in terms of identification of issues and corresponding actions from the risk assessments performed for CHES related to Operation.</p> <p>Refer to Recommendation #1 in Section 4 for further details.</p>

Extent of work undertaken by ASX		
Specified Matter	Work performed	Findings
	which discuss and review the outcome of the risk assessments performed.	
Security	<ol style="list-style-type: none"> 1. We performed an assessment of the extent of work undertaken by ASX to support the statements included in the Security section of the Special Report. Our assessment included the review of relevant artefacts supporting the description of the current state such as the cyber security framework, the cyber security incident response, the vulnerability scanning procedure, the security patching policy and walkthrough samples to demonstrate processes in place. We reviewed the CHES security standards review, the ASAE3402 controls report, the self-assessment against Essential 8 and penetration testing reports. 2. We conducted workshops and walkthrough meetings of the key processes and controls related to the security of CHES, including those related to security strategy and governance, identity and access management, data security, systems security, threat and vulnerability management, security monitoring and response. 3. We inspected the results from the latest CHES security standards review completed by ASX. 	<p>1) Our assessment found that the work undertaken by ASX to obtain the outcomes documented in the Special Report in relation to Security was: (a) supported by relevant assessments, and (b) substantiated by relevant evidence.</p> <p>2,3) The CHES security standards review identified a number of recommendations to uplift the processes that support the security of CHES which have been considered in the initiatives outlined in the CHES Roadmap, with some recommendations still under evaluation to develop an adequate mitigation plan.</p> <p>[REDACTED]</p> <p>As ASX progresses with the implementation of the initiatives and continues to assess the risks associated to the security of CHES, we recommend ASX to leverage better practices and relevant frameworks and standards such as the NIST cybersecurity framework, the CIS list of critical security controls and the Security of Critical Infrastructure Act 2018 to further assess current ASX posture on security risks.</p> <p>Refer to Recommendation #2 in Section 4 for further details.</p>
Continuity	<ol style="list-style-type: none"> 1. We performed an assessment of the extent of work undertaken by ASX to support the statements included in the Continuity section of the Special Report. Our assessment included the review of relevant artefacts supporting the description of the current state such as the CHES architecture diagram and relevant policies, procedures and frameworks, including the 	<p>1) Our assessment found that the work undertaken by ASX to obtain the outcomes documented in the Special Report in relation to Continuity was: (a) supported by relevant assessments, and (b) substantiated by relevant evidence.</p>

Extent of work undertaken by ASX		
Specified Matter	Work performed	Findings
	<p>Business Continuity Management Framework, the BCM exercise framework, the backup and restoration policy, the crisis management plan and evidence of relevant training. We also inspected multiple samples to demonstrate processes in place, including backups, incidents and problems.</p> <p>2. We conducted workshops and walkthrough meetings of the key processes and controls related to the continuity of CHES, including business continuity, IT disaster recovery and service continuity, monitoring of back-ups, incidents and restoration of back-ups.</p>	<p>2) Our assessment identified opportunities to uplift the current control environment such as the possibility to improve the current Business Continuity Plans and Business Impact Analysis to provide a holistic and integrated view of critical dependencies for CHES. As ASX progresses with the implementation of the initiatives and continues to assess the risks associated to the resiliency and continuity of CHES, we recommend ASX to consider the opportunity to further align to industry better practice and relevant frameworks and standards leveraging the guidance provided as part of Business Continuity and Security Standards for RITS members, regulatory trends within financial services (the Prudential Standard CPS 230 Operational Risk Management), or the Critical Infrastructure legislation.</p> <p>Refer to Recommendation #2 in Section 4 for further details.</p>
Governance	<p>1. We performed an assessment of the extent of work undertaken by ASX to support the statements included in the Governance section of the Special Report. Our assessment included the review of relevant artefacts supporting the description of the current state such as committee charters, governance meeting minutes, vendor, delivery and project management frameworks and their procurement policy.</p> <p>2. We conducted workshops and walkthrough meetings with ASX to understand the governance processes, including the operating model, resources, vendor support and controls monitoring.</p> <p>3. We interviewed a sample of vendors to understand processes in place for ongoing monitoring and reporting related to the service provided in relation to the support and maintenance of CHES.</p>	<p>1) Our assessment found that the work undertaken by ASX to obtain the outcomes documented in the Special Report in relation to Governance was: (a) supported by relevant assessments, and (b) substantiated by relevant evidence.</p> <p>2,3) Our assessment identified opportunities to further uplift current control environment such as the current approach for vendor tiering and associated criteria and supporting rationale, requirements for vendor due diligence and ongoing assessments of providers and the consideration and due diligence of fourth-party vendors. As ASX continues to assess the risks associated to the governance of CHES, we recommend ASX to consider performing a deep dive analysis on their associated vendor management processes.</p> <p>Refer to Recommendation #2 in Section 4 for further details.</p>

Extent of work undertaken by ASX		
Specified Matter	Work performed	Findings
Detailed Roadmap	<p>1. We understood the process followed by ASX to consolidate the initiatives proposed in the CHES Roadmap and analysed how the topics to be covered in those initiatives align to the outcome of the risk assessments performed.</p> <p>We acknowledged the Special Report includes limited information around the scope of the initiatives included in the roadmap as most initiatives are currently in early planning stages. Considering that limitation, our assessment has not included a detailed review of scope documents for each initiative to evaluate how they would achieve the expected outcomes to address the risks identified.</p>	<p>1) We have not identified significant gaps in the proposed coverage, i.e. significant issues identified in the risk assessments performed by ASX which are not related to any of the proposed initiatives</p> <p>The Special Report states that assurance activities will be undertaken over the CHES roadmap initiatives via reviews performed by ASX Internal Audit and/or independent external audits. While not explicitly identified as a separate initiative in the roadmap, an Assurance Program will be developed. We recommend ASX to formalise and establish the Assurance Program for the CHES roadmap as a priority to oversee and validate the proposed scope and approach for each initiative and assess whether the outcomes obtained meet the desired risk objectives.</p> <p>Refer to Recommendation #3 in Section 4 for further details.</p>

3.3 Governance arrangements to produce the Special Report

As per the written notice given to ASX on 14 December 2022, requiring the preparation of the Special Report on the support and maintenance of CHES, ASX established a project team with dedicated resources including the support of an external provider to augment the ASX team and provide specialised expertise as appropriate in the preparation of the Special Report.

The preparation and review of the Special Report has been supported by ASX management key stakeholders, including General Managers of relevant Business divisions of ASX, Group Executives and the Managing

Director and CEO. The Special Report has been presented and discussed through relevant Committees up to Board level.

To formalise the review and support the attestation process, ASX has utilised a specialised software. The Special Report was segmented into sections and items that were subsequently assigned to relevant stakeholders for verification and attestation of the facts presented and the supporting evidence.

The attestation process considered four levels of review: i) General Manager; ii) Executive General Manager; iii) Executive Group comprised of the Group Executive for S&P (Securities & Payments) and the Managing Director and CEO; and iv) Chairman of CS (Clearing and Settlement) Boards. Access to the attestation tool was segregated according to the level of access required by each stakeholder.

- ▶ We performed an assessment of the governance arrangements to produce the Special Report, including a walkthrough of the attestation tool utilised where ASX demonstrated that the entirety of the statements presented in the Special Report have been verified following the established process ahead of report issuance.

We did not identify any significant gaps with regards to the Governance arrangements to produce the Special Report.

4. Summary of Recommendations

The table below details the recommendations from our assessment of the extent of work undertaken by ASX to obtain the outcomes documented in the Special Report. We have identified three key recommendations.

Number	Recommendation	Better Practice*
1	<p>Risk Management practices</p> <p>Key risks, controls, issues, controls and related actions across ASX are recorded in the organisation's enterprise risk management system, ERICA. Each business division is responsible for recording and maintaining key risks in ERICA as they relate to their respective operations.</p> <p>CHES-specific risks are not specifically tagged as such in ERICA, but rather are linked to the overall business division that own the risks. The 31 key risks described in the Special Report were established through an exercise to review all risks in ERICA, and manually filter for those that were relevant to the ongoing operation of CHES.</p> <p>ASX should implement risk monitoring and reporting practices that incorporate ASX's views on CHES risks as now described in the Special Report.</p> <p>This includes:</p> <p>Periodic identification and assessment of risks that could impact the ongoing operation and maintenance of CHES</p> <p>Implement a process to revisit the key CHES risks on a regular basis to:</p> <ul style="list-style-type: none"> ▶ Identify any new or emerging risks, or changes to existing risks, relevant to the ongoing operation and maintenance of CHES. ▶ Confirm that risk mitigation strategies continue to be adequate in managing key risks. ▶ Assess the impact of broader organisational, market and regulatory trends and risk events on the ongoing operation and maintenance of CHES. 	<p>Risk Management</p> <ul style="list-style-type: none"> ▶ Risk profile informed by a comprehensive assessment of the impacts of business and strategic decisions, including, but not limited to the impact of new products, services and technologies. ▶ Greater proactive monitoring of changes in the risk profile. Ongoing assessment of the impact of incidents and control weaknesses, and assessment of the potential changes to the profile from new products, services, and technologies. ▶ Common risk and controls taxonomy with demonstrable linkage between operational risks, compliance obligations and related controls. ▶ Clearer and more comprehensive reporting from management to the Board to facilitate a robust review and challenge of the risk profile. ▶ Regular monitoring, review, and testing of controls for design and operating effectiveness with appropriate reporting to senior management. ▶ Uplift in information systems, risk reporting and analytics capabilities to provide timely and comprehensive information to the Board, looking to reflect a close-to-real time view of risk exposures.

Number	Recommendation	Better Practice*
	<p>Operational risk management systems should be enhanced to more readily identify and report on risks that impact, either directly or indirectly, the ongoing operation and maintenance of CHES.</p> <p>The controls assurance program being implemented by ASX will be an important reference in evaluating the effectiveness of controls in place to address key risks identified.</p> <p>Comprehensive risk monitoring and reporting on CHES-specific risks and mitigation strategies</p> <p>Current risk reporting to the Technology Committee and CS Boards on CHES risks is primarily facilitated through the outcome of the system risk assessments performed against eight risk categories (Availability, Capacity, Disaster Recovery, Incidents and Problems, IT Security, System Age, System External Support, System Internal Support).</p> <p>The Special Report describes 31 key risks that have the potential to impact the operation of CHES, which have not historically been reported to that level of detail at the Technology Committee or other governance meetings.</p> <p>Risk reporting to the Technology Committee and ASX and CS Boards should be enhanced to provide greater visibility in relation to the ongoing management and monitoring of these key risks.</p> <p>We expect this would include at a minimum:</p> <ul style="list-style-type: none"> ▶ The outcomes of periodic risk assessments over CHES, and any changes or additions as a result to existing risks identified and the overall risk profile. ▶ A specific assessment of the results of relevant risk reviews (including, but not limited to, internal audits, controls assurance reviews, or targeted external IT assessments) on the risk profile for CHES. For example, it was not immediately apparent how the potential risk impacts to CHES (or otherwise) of the findings from the recent Security Standards review were considered and documented in the CHES risk profile. ▶ The outcomes of assessments performed in relation to delivered risks arising from operational change. This would not be limited to operational changes to 	

Number	Recommendation	Better Practice*
	<p>CHES, but also consider the risk impacts of broader change initiatives on the ongoing operation and maintenance of CHES.</p> <ul style="list-style-type: none"> ▶ Where there has been formal acceptance of certain risks, a more formal assessment and reporting on the continued adequacy of interim risk mitigation measures until such time as a more sustainable solution is implemented [REDACTED] ▶ The development and periodic measurement and reporting of key risk metrics for CHES. This would include a balanced scorecard of both leading and lagging risk indicators covering the security, resilience and operation of CHES. 	
2	<p>Risk Assessment processes</p> <p>The risk assessments undertaken by ASX in September and November 2022 on the ongoing support and maintenance requirements for CHES covered:</p> <ul style="list-style-type: none"> ▶ Internal and external support capacity and capability. ▶ Technology obsolescence. ▶ System capacity and performance scalability. <p>Additionally, a recent ASX security standards review identified several improvement recommendations.</p> <p>ASX acknowledge in the Special Report that the initiatives identified were based on a current assessment of CHES, and that ongoing assessments of those risks will inform new initiatives in the CHES Roadmap.</p> <p>Our assessment found opportunities to align the current control environment to generally accepted market practice. This included improvements in the areas of business continuity and resilience, security and third-party risk management.</p> <ul style="list-style-type: none"> ▶ Regarding continuity and resilience, examples of further areas of uplift include revisiting the approach to complete Business Continuity Plans and Business Impact Analyses to provide a holistic and integrated view of critical dependencies for CHES. 	<p>Continuity</p> <ul style="list-style-type: none"> ▶ Documentation of the end-to-end processes and resources needed to deliver critical operations, including data flows, people, technology, information, facilities and service providers, the interdependencies across them, and the associated risks, obligations and controls. ▶ Business Continuity Plans and Business Impact Analysis consider all dependencies to ensure continuity of the services. ▶ Testing program that covers all critical operations and includes periodic exercises that include a range of severe but plausible scenarios that could impact critical operations. <p>Security</p> <ul style="list-style-type: none"> ▶ Comprehensive identification and classification of information assets by criticality and sensitivity, including those managed by third parties.

Number	Recommendation	Better Practice*
	<p>▶ Regarding security, examples of deep dives to further assess current ASX posture on security risks would include [REDACTED]</p> <p>▶ In relation to third party management, we recommend ASX perform an assessment of current approaches and governance over third parties, including but not limited to vendor tiering, fourth party risks, and requirements for due diligence and ongoing assessments.</p> <p>We recommend that the scope of ongoing risk assessments planned:</p> <ul style="list-style-type: none"> ▶ Cover the Specified Matters described in the Special Report. ▶ Consider the need for additional risk assessments, or more targeted deep-dive reviews in response to new or emerging risks identified. ▶ Explicitly consider alignment with generally accepted better practices for the domain area assessed. 	<ul style="list-style-type: none"> ▶ Definition of a set of information security controls to protect information assets. ▶ Undertake systematic testing and assurance regarding the effectiveness of information security controls. ▶ Maintain plans to respond to information security incidents, with periodic testing of different scenarios and responses to ensure they remain effective. <p>Third-party governance</p> <ul style="list-style-type: none"> ▶ Comprehensive identification and classification of information assets managed by third parties. ▶ Develop/define a standard inherent risk profiling approach to tier your third parties. ▶ Identify fourth parties and assess third-party's controls over fourth parties for adequacy and effectiveness. Enforce contractual terms within third-party contracts to include services provided by subcontractors. ▶ Define clear requirements and perform ongoing due diligence and monitoring procedures that is proportionate to the criticality and tiering of third parties. ▶ Obtain periodic assurance over the design and operating effectiveness of controls managed by third parties.

Number	Recommendation	Better Practice*
3	<p>CHESS Roadmap Assurance Program</p> <p>ASX should accelerate the formal development and implementation of the Assurance Program over the CHESS Roadmap as a priority. We recommend this should be formally established within the next 90 days and include a validation of both planned scope and delivered outcomes of proposed initiatives in the roadmap.</p> <p>The Assurance Program should, in parallel to other governance activities, provide the Board and senior management confidence that initiatives in the CHESS Roadmap are achieving the planned risk and control objectives intended.</p> <p>The following are the key aspects for ASX to consider in the development and maintenance of the Assurance Program:</p> <ul style="list-style-type: none"> ▶ Define in detail the objective, scope, approach, timeline, accountable person, and assurance provider for each assurance activity. Scope should include an evaluation of both design and operating effectiveness of any control capabilities delivered. ▶ Regularly review the Assurance program to maintain its relevance and effectiveness. The initiatives should consider the underlying issues to be resolved in order to ensure risk objectives are being met. ▶ Assurance should be provided by an operationally independent team. In the event where ASX decides to engage an external party to conduct the assurance reviews, the independence of the provider should be assessed. ▶ The timing of the assurance activities should be planned and incorporated into the overall CHESS roadmap to support the timely completion of the assurance reviews. ▶ Governance of the Assurance Program should be formalised and established, including the following: <ul style="list-style-type: none"> ▶ Change management of the assurance program. ▶ Process for issue closure and related validation activities required over the remediation of any findings identified. 	<p>Assurance Program</p> <ul style="list-style-type: none"> ▶ Develop a fit-for-purpose assurance program that combines a number of different types of independent and objective reviews, including program health-checks, targeted reviews, operational readiness reviews, deep-dives and milestone reviews. ▶ Breadth of areas to be covered in the Program include Program Governance (design of program governance, decision-making, business case definition and benefits management), Project Management (managing scope, cost, time and change controls, adequacy of supplier/vendor performance and contract management) and Technical Solution (functional and technical fit-for-purpose assessments (design and build), business requirements, risks and controls, testing and validation, data integration, continuity and cyber security). ▶ Formal governance mechanisms established for the assurance program, including periodic reporting to the relevant business and program committees.

Number	Recommendation	Better Practice*
	<ul style="list-style-type: none"> ▶ Monitoring of progress of assurance activities and closure of remediation actions. ▶ Assess impact of delays in the completion of initiatives and findings identified including associated contingency plans to the continuous maintenance of CHES. ▶ Reporting of outcome of assurance activities to the relevant management and Board committees (i.e. SGG - Strategic Guidance Group, Technology Committee, etc). <p>The Special Report also mentions a number of actions to continue to uplift ASX's control environment that will be completed as part of business as usual (BAU) activities, including activities such as the key controls testing program and the formalisation of functional and non-functional requirements for CHES.</p> <p>ASX should formally define the timeline of the completion of these BAU management actions and monitor progress as part of overall CHES Roadmap governance and oversight, and be subject to validation as part of the Assurance Program once established.</p>	

* These non-exhaustive examples of better practices have been extracted from EY thought leadership and industry insights, local regulatory requirements (e.g. APRA Prudential Standards CPS220, CPS230, CPS231, CPS234), and international regulatory requirements (e.g. UK PRA Supervisory Statement 1/21 Operational Resilience) and standards (e.g. NIST, CIS, ISO31000, ISO22301, BCI).

Appendix A Workshop and Interview List

The table below outlines the workshops and interviews conducted with ASX stakeholders.

Workshop and Interview List			
Workshop Topic	Attendees		Date of Workshop
Introduction to CHES	Enterprise Architect, Architecture	GM, Technology Security & Governance, Security & Governance	3 March 2023
CHES Architecture, CHES Operating Model & CHES Governance	GM, Business Management & Planning, S&P, Business Management & Planning GM, Equity Post Trade and Payments, S&P, Management GM, Securities & Payments Operations, S&P, Operations GM, Securities & Payments Technology, S&P, Technology GM, Technology Infrastructure, Infrastructure	Group Executive, Securities and Payments, S&P, Management Head of Product and Client Relationships Senior Project Manager	9 March 2023
Continuity Stream	Backup and Recovery Specialist	GM, Securities & Payments Technology, S&P, Technology	15 March 2023
Continuity Q&A	Business Continuity Plan Change Management Analyst Enterprise Architect, Architecture GM, Business Management & Planning, S&P, Business Management & Planning GM, Securities & Payments Operations, S&P, Operations	GM, Technology Infrastructure, Infrastructure Group Business Continuity Manager, Enterprise Risk Senior Manager, Application Support, S&P, Technology Senior Project Manager	29 March 2023
Security Stream	Chief Information Security Officer	Manager, Security Architecture and Assurance	20 March 2023
Security Q&A	GM, Business Management & Planning, S&P, Business Management & Planning GM, Securities & Payments Operations, S&P, Operations GM, Securities & Payments Technology, S&P, Technology	Senior Manager, Identity and Access Management Senior Manager, Security Architecture and Assurance Senior Project Manager	11 April 2023
Risk Stream	Acting General Manager, Internal Audit	Manager, Operational Risk Management	21 March 2023
Risk Q&A	GM, Enterprise Risk Management GM, Business Management & Planning, S&P, Business Management & Planning GM, Securities & Payments Technology, S&P, Technology	Senior Manager, Enterprise Risk Management Senior Project Manager	4 April 2023

Workshop and Interview List			
Operations Stream	Enterprise Architect, Architecture	GM, Technology Infrastructure, Infrastructure	24 March 2023
Operations Q&A	GM, Business Management & Planning, S&P, Business Management & Planning GM, Equity Post Trade and Payments, S&P, Management GM, Securities & Payments Operations, S&P, Operations GM, Securities & Payments Technology, S&P, Technology	Head of Product and Client Relationships Head of Quality Engineering and Testing Senior Manager, Application Support, S&P, Technology Senior Manager, IT Service Management Owner Senior Project Manager	3 April 2023
Governance Stream	GM, Enterprise Delivery Enablement	GM, Technology Infrastructure, Infrastructure	30 March 2023
Governance Q&A	GM, Business Management & Planning, S&P, Business Management & Planning GM, Securities & Payments Operations, S&P, Operations GM, Securities & Payments Technology, S&P, Technology	Head of Enterprise Project Management Office Senior Manager, Vendor and Partner Relationships Senior Project Manager	12 April 2023
CHESS Risk Assessment	GM, Business Management & Planning, S&P, Business Management & Planning GM, Equity Post Trade and Payments, S&P, Management	GM, Securities & Payments Technology, S&P, Technology Senior Project Manager	13 April 2023
Governance Arrangements	GM, Business Management & Planning, S&P, Business Management & Planning	Senior Project Manager	17 April 2023
Regulatory & Compliance	Deputy General Counsel, Enterprise Compliance GM, Enterprise Compliance	Senior Legal Counsel, Enterprise Compliance Senior Project Manager	17 April 2023
Interview	Attendees		Date of Interview
Interview with ASX/CS Director	Director of ASX Clearing and Settlement Boards, Chair of ASX Clear Pty Limited and Chair of ASX Settlement Pty Limited		17 April 2023
Interview with ASX/CS Director	Director of ASX Board, Chair of Audit and Risk Committee		18 April 2023
Interview with ASX/CS Director	Director of ASX Clear Pty Limited and Director of ASX Settlement Pty Limited		18 April 2023
Interview with ASX/CS Director	Director of ASX Board, Chair of Technology Committee		18 April 2023
Interview with ASX/CS Director	Director of ASX Board, Independent Chairman		20 April 2023
Interview with Third-party A	Representatives from vendor engaged by ASX for the ongoing support of CHESS		20 April 2023
Interview with Third-party B	Representatives from vendor engaged by ASX for the ongoing support of CHESS		21 April 2023

Appendix B Coverage of ASIC Requirements

ASIC Letter	ASIC Requirement	Coverage by the Special Report	Coverage of Specified Matters - EY assessment conclusion (Yes / No / Partially)
Operation a. (i)	identify and assess, any risks to the resilience, reliability, integrity and security of CHES;	5.1 Risk Identification and Assessment / Management and Monitoring	Yes
Operation a. (ii)	detail how the CS Facility Licensees will manage and monitor any risks to the resilience, reliability, integrity and security of CHES;	5.1 Risk Identification and Assessment / Management and Monitoring	Yes
Operation a. (iii)	detail how the CS Facility Licensees will ensure CHES has the appropriate functionality, scalable capacity and performance - including to accommodate current and future reasonably expected growth in trading volumes;	5.2 Product Management 5.3 Scalability, Availability and Performance	Yes
Operation a. (iv)	identify any necessary upgrades to CHES required to avoid obsolescence of the end-to-end technology;	5.4 IT Asset Management	Yes
Operation a. (v)	detail how the CS Facility Licensees will manage the safe and secure implementation of material changes to CHES, including testing such changes and ensuring that parties that may be impacted are adequately consulted and communicated with, and prepared for the changes;	5.5 Testing and Change	Yes
Operation a. (vi)	details the CS Facility Licensees' management program (including monitoring and performance management) for any outsourced services essential to the operation of CHES and availability of its services, including all risks to resilience, reliability, integrity and security;	8.2 Operating Model - Resources and Vendor Support	Yes
Operation a. (vii)	identify internal and external support requirements, in terms of resourcing and extendable/upgradeable vendor contracts;	8.2 Operating Model - Resources and Vendor Support	Yes
Security b. (i)	detail how the CS Facility Licensees will ensure the confidentiality, integrity and availability of information obtained, held or used by the CS Facility Licensees in relation to CHES, including maintaining availability of and authorised access to data;	6.1 Security Strategy, Governance and Risk Management 6.2 Identity and Access Management 6.3 Data Security 6.4 Systems Security	Yes

ASIC Letter	ASIC Requirement	Coverage by the Special Report	Coverage of Specified Matters - EY assessment conclusion (Yes / No / Partially)
Security b. (ii)	detail how the CS Facility Licensees will implement a system of security controls, monitoring and periodic testing of controls to ensure CHES is resilient to unauthorised access or disruptions due to cyber events;	6.5 Threat and Vulnerability Management 6.6 Security Monitoring and Response	
Continuity c. (i)	establish, implement, test and maintain continuity plans that include response and recovery processes for any event that would or would be likely to cause significant disruption to CHES, including (but not limited to) server or network infrastructure failures, software failures, cyber incidents, and business process failures;	7.1 Business Continuity	Yes
Continuity c. (i)	ensure that disruption scenarios are periodically tested, continuity plans are continually improved, and resources (including any external parties) that are required to engage with such plans are trained and familiar with their roles and responsibilities;	7.2 IT Disaster Recovery (DR) and Service Continuity	Yes
Continuity c. (i)	implement regular backup and recovery (from back up) procedures to ensure access can be re-established following a disruption event resulting in loss or corruption of data;	7.3 Monitoring of Backups and Incidents 7.4 Restoration of Backups	Yes
Governance d. (i)	what governance arrangement (including Board level oversight and management structures) the CS Facility Licensees have in place to ensure ongoing monitoring and management of any risks to the performance and operation of CHES and availability of its services, and the adequacy of financial, technological and human resources (including any external parties and outsources services);	8.1 Governance Structure and Supporting Processes	Yes
Governance d. (ii)	how the CS Facility Licensees will ensure it has the requisite skills and capabilities (including, where necessary, external parties) for the operational maintenance and support arrangements for CHES and for continues performance and operation of CHES and availability of its services until the Go-Live date of the CHES Replacement System;	8.2 Operating Model - Resources and Vendor Support	Yes
Governance d. (iii)	what system of controls and monitoring the CS Facility Licensees have in place to measure, assess and continuously improve and assure the ongoing resilience, reliability, integrity and security of CHES.	8.3 Controls Monitoring	Yes

ASIC Letter	ASIC Requirement	Coverage by the Special Report	Coverage of Specified Matters - EY assessment conclusion (Yes / No / Partially)
General Statement 2. e)	e) With respect to the above, identify what principles, policies and frameworks (including by reference to international standards where appropriate) are to be applied to guide a comprehensive, consistent and transparent approach across these areas.	Where applicable, principles, policies and frameworks have been described for each underlying processes, including reference to international standards where appropriate.	Yes
General Statement (3)	For the avoidance of doubt and where appropriate, the Special Report must detail implementation plans and specify the date by which the arrangements detailed in accordance with (2) will be in place.	The Special Report details implementation plans and date by which the arrangements will be in place. Refer to Section 9. Detailed Roadmap of the Special Report.	Yes*

*The Special Report includes limited information around the scope of the initiatives included in the CHESS Roadmap as most initiatives are currently in early planning stages.

Appendix C Risk and Control Analysis

The table below details the results of the assessment performed over the CHES risk profile documented in the Special Report. Our evaluation of ASX's process to identify the CHES risk profile has included a comparison of CHES risk and control profile against EY's PRC (Process Risk and Control) library to assess the completeness and appropriateness of the risks and controls identified for CHES.

EY Process Risk Control Framework	ASX Risk Theme	Addressed (Yes / Partially / No)
IT Service Continuity Management	Outage or unavailability of critical systems or services due to a natural disaster or another unexpected event Lack of responsiveness to changes or exposure to economic conditions that affect ASX's market position	Yes
Enterprise Architecture	Inflexible and inefficient technology environment Outage or unavailability of critical systems or services due to a software or hardware defect	Yes
Requirements Development	Outage or unavailability of critical systems or services due to a software or hardware defect Market Outage and/or Business disruption due to system malfunction/failure Outage or unavailability of critical systems or services due to an internal procedural error Ineffective system functionality and utility (including performance and capacity) Inefficient, untimely and ineffective delivery of technology changes	Yes
Solution Design & Development (Application, Database, Operating System, Infrastructure)		
Validation		
Change Management		
Release Management		
Incident Management		
Problem Management		
Asset / Portfolio Management		
Availability Management		

EY Process Risk Control Framework	ASX Risk Theme	Addressed (Yes / Partially / No)
Capacity Management		
Performance Management	Critical tasks are not completed promptly or not completed at all due to skill or resource unavailability	Yes
Human Capital Management (Resource Management)		
IT Third-Party Management	Non-compliance with contractual obligations with third parties - Technology Poor management of customers or disputes with external parties (including clearing participants, listed entities, vendors) leading to complaints and/or litigation	Yes
Policies, Standards and Procedures	Ineffective or inefficient process design or manual execution Inefficient, untimely and ineffective delivery of technology changes Compliance with ASX's rules and frameworks is inadequately monitored	Yes
Job Scheduling	Data entry, maintenance or input error	Yes
Configuration Management		
Identity and Access Management (Authentication, Authorisation and Access Control)	Unauthorised access and/or use of customer or confidential information Internal fraud by management or staff (including contractors)	Yes
Operational Security Management	External fraud	Yes
Information Technology Security Management		
Information and Data Management		
Security Incident Management		
Security Organisation	Inadequate cyber resilience framework	Yes

EY Process Risk Control Framework	ASX Risk Theme	Addressed (Yes / Partially / No)
Physical and Environmental Security	System or data compromised by unauthorised or malicious activity Outage or unavailability of critical systems or services due to a natural disaster or another unexpected event	Yes
Communication and Awareness	Compliance with ASX's rules and frameworks is inadequately monitored	Yes
Legal and Regulatory Compliance	Failure to report in a complete, accurate and/or timely manner to regulators Non-compliance with regulatory obligations or relief Inability to identify new competitors and/or manage existing competition resulting in loss of business, customer complaint, reputational damage and deteriorating investor sentiment. Lack of responsiveness to changes or exposure to economic conditions that affect ASX's market position Non-compliance with licence obligations	Yes
Accountability and Oversight	Inability to identify new competitors and/or manage existing competition resulting in loss of business, customer complaint, reputational damage and deteriorating investor sentiment. Inappropriate management of the ASX brand and / or reputation Inappropriate pricing of products or services Inappropriate strategy or prioritisation of strategic initiatives	Yes
IT Financial Management	Inappropriate pricing of products or services Inappropriate strategy or prioritisation of strategic initiatives	Yes
Program / Project Management	Poor management of customers or disputes with external parties (including clearing participants, listed entities, vendors) leading to complaints and/or litigation	Yes

Appendix D Documents Reviewed

Document List					
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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
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Appendix E Glossary of Terms and Acronyms

Acronym	Term	Definition
1/21 Operational Resilience	Supervisory Statement 1/21 - Operational Resilience	UK's operational resilience rules
APRA	The Australian Prudential Regulatory Authority	Australia's independent statutory authority that is responsible for promoting financial stability
ASAE3402	Standard on Assurance Engagements ASAE 3402	Standard on Assurance Engagements - Assurance Reports on Controls at a Service Organisation
ASIC	The Australian Securities and Investments Commission	Australia's financial markets conduct regulator that is responsible for promoting fair and efficient financial systems
ASX	ASX Limited	ASX Limited is an Approved Market Operator
ASX Clear	ASX Clear Pty Limited	The ASX wholly owned subsidiary provides clearing facilities for Australia's equities markets, including cash equities and exchange-traded equity options
ASX Group	Australian Securities Exchange	
ASX Settlement	ASX Settlement Pty Limited	The ASX wholly owned subsidiary that provides settlement services for Australia's equities markets and maintains the CHES Subregister
BAU	Business as Usual	
BCI GPG	Business Continuity Institute - Good Practice Guidelines	Good Practice Guidelines from the Business Continuity Institute
CEO	Chief Executive Officer	
CHES	Clearing House Electronic Subregister System	The core system used by ASX to fulfil its CS obligations.
CIS	Center for Internet Security	The CIS list of Critical Security Controls
CPS 220	Prudential Standard CPS 220	APRA Prudential Standard CPS 220 - Risk Management
CPS 230	Prudential Standard CPS 230	APRA Prudential Standard CPS 230 - Operational Risk Management
CPS 231	Prudential Standard CPS 231	APRA Prudential Standard CPS 231 - Outsourcing

Acronym	Term	Definition
CPS 234	Prudential Standard CPS 234	APRA Prudential Standard CPS 234 - Information Security
CS Boards	Clearing & Settlement Boards	
ERICA	ASX's Enterprise risk management system	
Essential 8	Essential Eight cyber security framework	Australian Cyber Security Centre recommended strategies to mitigate cyber security incidents
EY PRC	EY's Process Risk and Control library	
GM	General Manager	
ISO22301	International Organization for Standardization - 22301 standard	ISO 22301:2019, Security and resilience - Business continuity management systems - Requirements
ISO31000	International Organization for Standardization - 31000 standard	ISO 31000:2018 - Risk management - Guidelines
NIST	National Institute of Standards and Technology	National Institute of Standards and Technology Cybersecurity framework
RBA	Reserve Bank of Australia	
RITS	Reserve Bank Information and Transfer System	Australia's high-value settlement system, which is used by banks and other approved institutions to settle its payment obligations on a Real Time Gross Settlement (RTGS) basis.
S&P	Securities & Payments	
SGG	Strategic Guidance Group	
SOW	Statement of Work	

Appendix F Release Notice

Ernst & Young ("EY") was engaged on the instructions of ASX Limited ("ASX", "Client" or "you") to conduct an assessment of the CS Facility Licensees' basis and approach to preparing the Special Report in accordance with the written notices pursuant to s823B(2) of the Corporations Act 2001 ("Project"), in accordance with the engagement agreement dated 20 April 2023 including the General Terms and Conditions ("the Engagement Agreement").

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