

Agenda

Business Committee

Date	22 March 2023	Time	12:00pm- 2:00pm
Location	ASX offices – Level 1, 20 Bridge Street, Sydney/MS Teams		
1. Minutes and Actions			12:00pm- 12:10pm
a)	Minutes from the 7 December 2022 and 30 January 2023 Business Committee Meetings		
b)	Open actions		
2. Governance			12:10pm- 12:25pm
a)	Business Committee Charter		
b)	CHES Replacement Technical Committee draft Charter		
c)	Process for recommendations from Business Committee to ASX Clear and ASX Settlement Boards		
3. Service Performance			12:25pm- 12:35pm
a)	Cash Market Clearing and Settlement - Operating Performance		
4. Update on ASX's holistic management of all CHES related items			12:35pm- 12:45pm
5. Maintaining the stability of existing CHES			12:45pm-12:55pm
6. Current CHES priorities			12:55pm-1:15pm
7. T+1 settlement			1:15pm-1:25pm
8. CHES Replacement			1:25pm- 1:55pm
a)	Project update including Partnership Program		
b)	Update from CHES Replacement Technical Committee		
9. Other Matters			1:55pm- 2:00pm
a)	Forward work program		
b)	AOB		
c)	Next meeting – 19 July 2023		

Action Items*

*For historical action items please refer to archived minutes [here](#).

Item number#	Action	Due date	Status	Owner
2022 Oct (1)	ASX to amend the draft minutes from 13 July 2022 meeting to reflect the status of the 17 streams of CHES replacement work	Dec 2022	Completed	ASX
2022 Oct (2)	ASX to consider publishing a policy regarding treatment of ETO expiry on a closure day (e.g. late announced public holiday, core technology outage etc)	Mar 2023	Open	ASX
2022 Oct (3)	ASX to discuss with ASIC demands on the industry, in the context of the potential concurrency of consultation on ASIC Report 708 and CHES replacement	Dec 2022	Completed	ASX
2022 Oct (4)	ASX to review the wording in its Clearing and Settlement Fee Schedule describing the discount available	Dec 2022	Completed	ASX
2022 Dec (1)	Members to provide feedback on the structure, membership, frequency and material to be discussed at the new industry forum	Mar 2023	Open	ASX and BC Members
2022 Dec (2)	ASX to engage with members on the purpose and objectives of the CHES replacement project	Mar 2023	Open	ASX
2022 Dec (3)	ASX to provide any update from ACCC on whether the pricing review will be made public	Mar 2023	Open	ASX
2023 Jan (1)	ASX to provide an update regarding the process for recommendations from the Business Committee to the Boards of ASX Clear and ASX Settlement, including where a recommendation is not adopted.	Mar 2023	Open	ASX
2023 Jan (2)	ASX and members to review the Charter of the Business Committee in light of the new CHES Replacement Technical Committee and queries about the making of recommendations.	Mar 2023	Open	ASX and BC Members
2023 Jan (3)	ASX to amend the draft Charter of the CHES Replacement Technical Committee to include that the forum will provide input on the scope of the CHES replacement project (i.e. whether the project would be a like-for-like replacement of CHES, or the scope could be changed so as to, for example, extend to additional functionality).	Mar 2023	Open	ASX

Business Committee Members

Company	Name	Job Title	Apologies
ABN AMRO CLEARING	*Matthew McMahon	Head of Operations	Adrian Rubin, CEO APAC
AFMA	Damian Jeffree	Senior Director of Policy	
ASX	Val Mathews	Business Committee Chair and Chief Customer and Operating Officer	
ASX	Jamie Crank	Acting Co-Group Executive, Markets and General Manager, Trading, Information and Connectivity	
AIRA	Ian Matheson	Chief Executive Officer	
ACSA	David Travers	Chief Executive Officer	
ASA	Fiona Balzer	Policy & Advocacy Manager	
AUSIEX	Patrick Salis	Chief Executive Officer	
BANK OF AMERICA	Stephen Hacker	Director, Head of Operations	
BELL POTTER SECURITIES	Robert Tesoriero	Settlements Manager	
BNP PARIBAS	Mark Wootton	Head of Custody Product Aust & NZ	
BOARDROOM	Martin Jones	General Manager Corporate Governance & Director	
CBOE	Mike Aikins	Chief Operating Officer, APAC	
CITI	Christopher Moore	Manager – Direct Custody & Clearing	
CMC	Andrew Rogers	Director of Broking Business	
COMMSEC	Sheridan Thompson	Head of Industry Engagement & Process Improvement	
COMPUTERSHARE	Scott Hudson	General Manager – Market Liaison	
CREDIT SUISSE	Winston Loke	Australian Equities COO	
FINCLEAR SERVICES	David Ferrall	Founder, Managing Director & CEO	
GOLDMAN SACHS	Yen Le	Executive Director	
GIA	Megan Motto	Chief Executive Officer	
HSBC	Toni Icevski	Head of Client Services, Securities Services	
J.P. MORGAN	Jonathan Evans	Head of Custody & Markets Operations	
LINK MARKET SERVICES	Peter Jackson	Chief Operating Officer	
MACQUARIE GROUP	James Indge	Cash Equities Business Manager	
MORGAN STANLEY	Rebecca Hill	Chief Operating Officer	
MORGANS	Daniel Spokes	Director, Client Support Services	
NAB	Anita Mead	Head of Business Management, Self-Directed Wealth	
NSX	Chan Arambewela	Chief Operating Officer	
SIAA	Judith Fox	Chief Executive Officer	
SYDNEY STOCK EXCHANGE	Steven Larkins	General Manager, SSX Market Operations	
UBS	Conor Foley	Senior Business Manager	

* Delegate

ASX Management

Name	Job Title	Apologies
Tim Hogben	Group Executive, Securities and Payments	
Hamish Treleaven	Chief Risk Officer	
Dan Chesterman	Group Executive, Technology and Data, and CIO	
Tim Whiteley	Project Director, CHES Replacement Project	
Sally Palmer	Deputy General Counsel	
Katie McDermott	General Manager, Business Design, CHES Replacement Project	
Diane Lewis	General Manager, Regulatory Strategy and Executive Advisor	
Andrew Jones	General Manager, Issuer Services, Securities and Payments	
Suzy Munro	General Manager, Securities and Payments Operations	
Sabra Mott	General Manager, Securities and Payments Technology	
Nick Wiley	General Manager, Equity Post Trade and Payments	
Karen Webb	Senior Manager, Issuer Services, Securities and Payments	
Keith Purdie	Senior Manager, Equity Post Trade, Securities and Payments	Apology

Ernst & Young

Name	Job Title	Apologies
Roberto Fitzgerald	Partner, Financial Services	
Mike Orman	Partner, APAC FS Technology Leader	

Observers

Name	Job Title	Apologies
Nathan Bourne	Senior Executive Leader, Market Infrastructure (ASIC)	
Dodie Green	Senior Manager, Market Infrastructure (ASIC)	
Andia Petropoulos	Senior Analyst, Market Infrastructure (ASIC)	
Kylie Stewart	Senior Manager, Financial Market Infrastructure, Domestic and Payments (RBA)	
Tatiana Moiseeva	Lead Analyst, Financial Market Infrastructure, Domestic and Payments (RBA)	
Elizabeth Kandelas	Manager, Financial Market Infrastructure, Domestic and Payments (RBA)	
Gordana Bloom	Senior Analyst, Financial Market Infrastructure, Domestic and Payments (RBA)	

Business Committee Report to the Boards of ASX Clear and ASX Settlement

Business Committee Meeting

At its 7 December 2022 meeting, the Business Committee was updated on:

- the operating performance of CHES for the December quarter 2022 (data to end November 2022);
- the CHES replacement project, including Accenture's independent review, ASX's perspective on Accenture's findings and next steps, and the assurance program; and
- work being done to maintain the longevity and stability of existing CHES.

KEY ISSUES DISCUSSED

Key points from the discussion about the CHES replacement project included:

- i. Summary of bilateral stakeholder feedback on ASX's 17 November 2022 announcement
- ii. Interest and discussion on the purpose, scope and membership of the new industry forum, with members invited to provide additional feedback
- iii. Scope of future CHES replacement work, including purpose, functionality, extent to which work done to date will be re-used (e.g. DLT, ISO 20022, connectivity options)
- iv. Learnings for the assurance program

Members also expressed interest and a desire to understand the longevity of current CHES from a supportability, capacity and resiliency perspective.

AGREED ACTIONS

Three new actions were raised at the meeting:

1. Members to provide feedback on the proposed structure, membership, frequency and material to be discussed at the new industry forum
2. ASX to engage with members on the purpose and objectives of the CHES replacement project
3. ASX to provide any update from ACCC on whether the pricing review will be made public

Draft minutes from the meeting are attached.



ASX

Agenda

Business Committee

Date	7 December 2022	Time	4:00pm- 6:00pm
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Location	ASX offices – Level 1, 20 Bridge Street, Sydney/MS Teams
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1. Minutes and Actions	4:00pm- 4:20pm
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- a) Minutes from the 5 October 2022 Business Committee Meeting
- b) Open actions

2. Service Performance	4:20pm- 4:30pm
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- a) Cash Market Clearing and Settlement - Operating Performance

3. CHES Replacement	4:30pm- 5:30pm
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- a) Accenture's independent review
- b) ASX's perspective on Accenture's findings and next steps
- c) Assurance program update

4. Maintaining the stability of existing CHES	5.30pm- 5.45pm
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5. Other Matters	5:45pm- 6.00pm
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- a) Forward work program
- b) AOB
- c) Next meeting – 22 March 2023

End of Year Drinks

Business Committee members are invited to stay for drinks to thank members for their participation throughout 2022.

Action Items*

*For historical action items please refer to archived minutes [here](#).

Item number#	Action	Due date	Status	Owner
2021 Dec (1)	ASX to follow up bilaterally with Chi-X on the planning and timeframe to manage any potential industry impacts with Chi- X's planned move to the Cboe platform prior to CHES replacement go-live	April 2022	Completed	ASX
2021 Dec (2)	ASX to table contingency planning for CHES replacement for discussion at a future business committee meeting	July 2022	Completed	ASX
2021 Dec (3)	ASX to table at the April 2022 meeting the current take-up and the trajectory rate for investors opting in for electronic CHES holding statements to determine possible next steps	April 2022	Completed	ASX
2021 Dec (4)	ASX to include T+1 in the forward work program for further discussion; in the interim any member feedback on the materials presented would be welcomed	April 2022	Completed	ASX & BC Members
2022 Apr (1)	ASX to consider forums in which non-cash equity conversations can be undertaken, including Austraclear and recent issues and challenges for market repo transactions	July 2022	Completed	ASX
2022 Oct (1)	ASX to amend the draft minutes from 13 July 2022 meeting to reflect the status of the 17 streams of CHES replacement work	Dec 2022	Completed	ASX
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Business Committee Members

Company	Name	Job Title	Apologies
ABN AMRO CLEARING	Barry Parker	Chief Executive Officer	
AFMA	Damian Jeffree	Senior Director of Policy	
ASX	Val Mathews	Business Committee Chair and Chief Customer and Operating Officer	
ASX	Jamie Crank	Acting Co-Group Executive, Markets and General Manager, Trading	
AIRA	Ian Matheson	Chief Executive Officer	Apology
ACSA	David Travers	Chief Executive Officer	
ASA	Fiona Balzer	Policy & Advocacy Manager	
AUSIEX	*Te Okeroa	Head of Sales, Trading & Customer Relationships	Patrick Salis, Chief Executive Officer
BANK OF AMERICA	Stephen Hacker	Director, Head of Operations	
BELL POTTER SECURITIES	Robert Tesoriero	Settlements Manager	
BNP PARIBAS	Mark Wootton	Head of Custody Product Aust & NZ	
BOARDROOM	Martin Jones	General Manager Corporate Governance & Director	
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MACQUARIE GROUP	James Indge	Cash Equities Business Manager	
MORGAN STANLEY	*Carrie Barrack	Country Business Manager (Australia)	Rebecca Hill, Chief Operating Officer
MORGANS	Daniel Spokes	Director, Client Support Services	
NAB	Anita Mead	Head of Business Management, Self-Directed Wealth	
NSX	Chan Arambewela	Chief Operating Officer	
SIAA	Judith Fox	Chief Executive Officer	
SYDNEY STOCK EXCHANGE	Steven Larkins	General Manager, SSX Market Operations	
UBS	Scott Hanlon	Head of Operations, Executive Director	

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ASX Management

Name	Job Title	Apologies
Tim Hogben	Group Executive, Securities and Payments	
Hamish Treleaven	Chief Risk Officer	
Dan Chesterman	Group Executive, Technology and Data, and CIO	
Tim Whiteley	Project Director, CHESSE Solution Design	
Sally Palmer	Deputy General Counsel	
Katie McDermott	General Manager, Equity Post Trade, Securities and Payments	
Diane Lewis	General Manager, Head of Regulatory Affairs	
Andrew Jones	General Manager, Issuer Services, Securities and Payments	
Suzy Munro	General Manager, Securities and Payments Operations	
Sabra Mott	General Manager, Securities and Payments Technology	
Karen Webb	Senior Manager, Issuer Services, Securities and Payments	
Keith Purdie	Senior Manager, Equity Post Trade, Securities and Payments	

Observers

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Nathan Bourne	Senior Executive Leader, Market Infrastructure (ASIC)	
Dodie Green	Senior Manager, Market Infrastructure (ASIC)	
Andia Petropoulos	Senior Analyst, Market Infrastructure (ASIC)	
Kylie Stewart	Senior Manager, Financial Market Infrastructure, Domestic and Payments (RBA)	
Stephanie Bolt	Manager, Financial Market Infrastructure, Domestic and Payments (RBA)	

AGENDA ITEM 1: MINUTES AND ACTIONS

The Chair welcomed members and delegates to the meeting and noted one recent membership change; Jamie Crank was welcomed as the member for ASX Markets (replacing Bradley Campbell).

Ian Matheson (AIRA) and Toni Icevski (HSBC) were apologies. Patrick Salis (AUSIEX), was represented by a delegate, Te Okeroa. Rebecca Hill (Morgan Stanley), was represented by a delegate, Carrie Barrack.

Jonathan Hicks and Srikant Yennamandra from Accenture attended the meeting as guests for the CHES replacement independent review update (agenda item 3a).

Mike Orman and Juan Carlos Martin from Ernst & Young (EY) attended the meeting as guests for the CHES replacement assurance program update (agenda item 3c).

Attending as observers were ASIC representatives Greg Yanco, Nathan Bourne, Dodie Green and Andia Petropoulos, and RBA representatives Kylie Stewart and Stephanie Bolt.

Two new ASX management attendees were also noted, Tim Whiteley (Project Director, CHES Solution Design) and Sabra Mott (General Manager, Securities and Payments Technology), for ongoing future attendance.

The agenda and papers were distributed to all members in advance of the meeting.

The Chair acknowledged recent scrutiny ASX had come under following the publication of Accenture's independent report on 17 November, and ASX's announcement to reassess all aspects of the CHES replacement project and derecognise capitalised software of \$245-255 million pre-tax in first half FY2023. Key themes ASX had been hearing from Committee members and more broadly from bilateral engagement with CHES stakeholders regarding the CHES replacement project included:

- Most not surprised by the decision given the delays but there was an element of surprise that ASX is reassessing all aspects of the project
- Keen interest in the work done to date and how much is going to change, noting feedback about the value of retaining work already completed where possible e.g. connectivity choices and the ISO 20022 messaging layer
- Interest in retaining the benefits of a DLT environment
- Keen interest in timelines to facilitate resource planning
- The importance of certainty regarding the path forward
- Understanding whether rebates would be offered, in recognition of stakeholder commitment on the project
- Further information about the industry forum
- Interest in further transparency and investment in relation to the existing CHES system, and whether consideration will be given to building new features

The Chair noted that ASX would expand more on CHES Replacement in agenda item 3.

Member discussion:

Members did not raise any questions in respect of the Chair's update.

a) Minutes from 5 October 2022 Business Committee meeting

The Chair noted that ASX received no comments on the draft minutes circulated on 31 October in advance of the meeting, however ASX had made one further edit to correct a typographical error. The minutes of the 5 October 2022 meeting were approved without any further changes.

Member discussion:

Members did not raise any questions in respect of the update.

b) Open actions

With regard to the four open actions raised at the last meeting, the following updates were provided:

- **Action:** ASX to amend the draft minutes from 13 July 2022 meeting to reflect the status of the 17 streams of CHES replacement work.

The Chair confirmed ASX circulated updated draft minutes with feedback due on 26 October 2022. ASX received no further feedback and the minutes were finalised. Accordingly, the action has been recorded as closed.

- **Action:** ASX to consider publishing a policy regarding treatment of ETO expiry on a closure day (e.g. late announced public holiday, core technology outage etc).

The ASX Markets member noted the precedent formed from the one-off 22 September public holiday, as well as a policy published by ASX on 26 February 2013. The ASX Markets member offered to circulate this policy to members (available [here](#)). In the event of a sustained market outage on ASX Trade, with the possibility of recovery prior to 4.00pm, the existing policy contemplated extension of trading on that day to run a separate Closing Single Price Auction (CSPA) at 6.00pm, finalising anywhere up to 6.59pm. In the context of ASX's consultation on ASIC Report 708 and management of market outages, ASX had received feedback that in the instance of an outage, there was little appetite to extend trading hours. ASX would consider this feedback and consider refreshing the existing policy. A member noted this update, but indicated certainty is key for their organisation, and that ASX had been speaking about consultation on this topic for some time. The action remains open.

- **Action:** ASX to discuss with ASIC demands on the industry, in the context of the potential concurrency of consultation on ASIC Report 708 and CHES replacement.

The ASX Markets member provided an overview of the three phases of ASIC Report 708 consultation. ASX was regularly meeting and discussing feedback received with ASIC, and would continue to discuss strains being reported by market and industry participants to ASIC. Accordingly, the action has been recorded as closed.

- **Action:** ASX to review the wording in its Clearing and Settlement Fee Schedule describing the discount available.

The ASX General Manager, Equity Post Trade, Securities and Payments confirmed ASX was reviewing the published wording. ASX confirms post the meeting that an updated description of the discount available for 'Holder/Holding Details Partial/Bulk Change of Participant' had been published on the [Clearing and Settlement Fee Schedule](#). Accordingly, the action has been recorded as closed.

AGENDA ITEM 2: SERVICE PERFORMANCE

a) Cash Market Clearing and Settlement - Operating Performance

The ASX General Manager, Securities and Payments Operations provided an update on the operating performance of the cash market clearing and settlement services (October and November):

- Service availability for CHES and the Trade Acceptance Service had remained at 100%.
- The daily average fail rate was unusually high during the months of September and November, exceeding 0.3% in both months. The September fails rate was attributed to unilateral fails within one participant. Factors contributing to the November fails rate exceeding 0.3% on 12 of the 22 business days included a combination of:
 - Stock-related fails where a security has netting turned off

- Participant-related fails. Some of these fails occurred over multiple days in relation to a PID change where participants needed to update their counterparty instructions.
- There were three extensions to CHES batch settlement in November, requested by different participants on different days due to different technical issues.
- ASX had engaged with relevant participants regarding fails and extension activity, and was confident each event was unrelated, had been resolved, and that the performance of the settlement batch had returned to normal levels.

Member discussion:

Members did not raise any questions in respect of the update.

AGENDA ITEM 3: CHES REPLACEMENT

a) Accenture's independent review

The ASX Group Executive, Securities and Payments noted ASX's announcement regarding the project on 17 November, and acknowledged that ASX had work to do to ensure trust and transparency with customers and regulators.

The findings from Accenture's report on solution design, project governance and delivery, as well as an internal assessment by ASX, had led to the difficult decision by ASX to pause current work on the project. The ASX Group Executive, Securities and Payments acknowledged the effort from Committee members and the regulatory agencies on development and testing, consultation, working groups, committee meetings, and tracking to project timelines. ASX had endeavoured to deliver a post trade solution that balanced innovation and state of the art technology with safety and reliability. The importance of ASX's clearing and settlement licences was noted, as was ASX's decision to derecognise the project cost to date. From a project governance perspective, ASX had appointed Tim Whiteley as Project Director. ASX was confident that the existing CHES system would continue to serve the industry well into the future, and would continue to invest in existing CHES.

The Accenture Managing Director noted Accenture was appointed in August 2022 to perform a 12 week assessment of the CHES replacement application delivery and outlined the scope of Accenture's review. The intent was to review aspects of the CHES replacement application being built by Digital Asset using the Daml smart contracting language and VMware's ledger platform. It was noted that this forms one part of the wider CHES ecosystem, which includes messaging, channels and infrastructure. Accenture's work also focused on understanding confidence in the execution of the application delivery plan, and the execution model between Digital Asset and ASX. A number of interviews were conducted with ASX and Digital Asset, and Accenture reviewed a number of artefacts around progress to date.

Accenture's engagement was structured in three separate phases:

1. Understanding core issues, what was contributing to those core issues and how they could potentially be solved. The six core issues identified by ASX and Digital Asset related to holdings, batch settlement, batch settlement processing and batch resiliency, bilateral matching, issuer HIN notification and support for ex-transactions.
2. Reviewing the delivery and execution model of the CHES replacement application delivery between ASX and Digital Asset, in the context of underlying themes identified by Accenture around latency, batch processing, constraints around the transaction size or batch size that could be processed in a batch (i.e. the number of transactions that could be grouped together).
3. Reviewing the draft delivery plan that had been provided by Digital Asset to understand completion to date, levels of confidence with the plan, and how to address some of the challenges that were presented from the core issues.

Accenture's work culminated in 45 recommendations, spanning 12 key focus areas, ranging from solution design to aspects of quality engineering, governance and design artefacts.

Member discussion:

A participant member asked Accenture whether they had previous experience auditing similar projects using digital asset technology (the technology, not the vendor). The Accenture Managing Director confirmed Accenture had run a number of these assessments globally – both from a product offering perspective and also technology, assessing both the capabilities and how to bring it to market. Accenture had worked with exchanges and clearing houses across the globe around their modernisation journey. The participant member asked whether there were any commonalities between their audit of CHES replacement and those other projects. The Accenture Managing Director noted Accenture didn't consider this body of work an audit per se, rather an assessment, and characterised other comparable assessments as being on a smaller scale (both in size and impact).

b) ASX's perspective on Accenture's findings and next steps

The ASX Group Executive, Securities and Payments noted external feedback of surprise at the figure of 63% complete (delivered and mostly tested by ASX) in Accenture's report, which included functional and non-functional aspects of the delivery as well as taking into account the six core issues that collectively were contributing to the challenges in the current solution design. While ASX had previously cited a figure of 95%, it was noted that this figure related only to functional aspects which were available in external test environments.

The complexity of the integrated solution (the application and its integration into the underlying ledger) was also highlighted in Accenture's report. The ASX Group Executive, Securities and Payments noted contributing factors to the complexity included meeting industry requirements and design considerations, which had led to scalability as well as future supportability challenges.

Accenture's findings on project governance called out the need for better ways of working between ASX and Digital Asset, and this was acknowledged as needing to be addressed.

The ASX Project Director provided a brief overview of intentions for the next phase of the project, with a wide ranging and thoughtful review of all options to validate the path forward. A decision framework was being created, to provide transparency around how the decision would be made. In early 2023 ASX was planning to be in a position to share a timeline on the solution redesign phase.

Member discussion:

A participant member asked whether ASX was trying to hold on to work done to date at the risk of going out to market and assessing the right software for the job. The ASX Project Director confirmed that as part of ASX's redesign process, all options would be explored and evaluated based on a decision framework.

An industry association member asked whether ASX would consider other clearing and settlement software (e.g. Austraclear), noting the demand from industry to see other initiatives progress independent to CHES replacement. The ASX Group Executive, Securities and Payments noted ASX would consider its technology and the post-trade environment as a portfolio of systems, and ASX had an ongoing strategy to maintain and support contemporary technology, and to provide customers with better integration, better data and better opportunities to innovate. ASX was not currently contemplating one single platform for debt and equity, although there were upgrade paths and continual work on each.

A registry member asked for ASX's thoughts on its framework for assessing the path forward and any early thinking, including how much would be internal input from ASX, Digital Asset and Accenture versus more external market feedback into the process. The ASX Project Director confirmed ASX had established its team, and was in the process of setting out the scope of work, with some of that work and timelines for the solution redesign phase likely to be shared externally around the time of ASX's half year results.

An industry association member asked whether functionality that had been deemed Day 2 functionality for CHES replacement would now be contemplated for Day 1 scope, and asked how ASX would consider future functionality needs in the new system. The ASX Project Director noted ASX's starting point was the current Day 1 scope, and that ASX would consider whether any Day 2 scope was dependent on technology choices made. ASX would weigh up delivery risk against scope.

A participant member asked whether ASX was considering moving from proprietary CHESSE messaging to ISO 20022 messaging as a separate (and potentially earlier) stream of work to the CHESSE replacement project, to introduce stakeholder benefit at different intervals as well as to reduce the risk involved in doing everything at once. The ASX Group Executive, Securities and Payments confirmed that the implementation options would be considered again as part of the solution design work being done, and noted it would be a significant body of work to introduce ISO 20022 messaging into current CHESSE, but it was certainly being considered for the replacement system.

Regarding the importance of the stability of existing CHESSE, a participant member noted feedback from their technology team regarding concerns about CHESSE running on COBOL and older servers, and asked whether the age of the language and servers was a real risk. The ASX Group Executive, Technology and Data, and CIO acknowledged that COBOL was not the language ASX would select for a new software build but noted that ASX had succeeded in recently hiring additional COBOL skillsets and that there were approaches that could be taken to make this technology work on newer servers. The biggest constraints related to the ability to make substantial change to existing CHESSE simply and easily, as well as the impact business changes would have on ASX and participants. ASX was confident in its ability to keep current CHESSE safe, stable and supportable. However, challenges would arise in making substantial business change, in the event that such change was required.

The participant member also asked how ASX would balance the need for continued investment and upgrades to existing CHESSE against any impacts to CHESSE replacement, noting ASIC could stipulate further terms on current CHESSE especially since the timeline for CHESSE replacement was currently unknown. The ASX Group Executive, Securities and Payments confirmed that dedicated teams of people managed each body of work, with dedicated governance for each, and that ASX did not see contention arising on that front, but that priority would always be given to the current production system. ASX had a risk management process around its technology stack and the supportability of that technology. ASX's Project Director noted that a number of large institutions in Australia were still using COBOL.

An industry association member asked for further information on the industry forum, including what it would look like and how it would interact with the Business Committee. A registry member asked whether the industry forum would be a higher level of governance than the Business Committee, or a more technical sub-committee. The Chair advised that ASX was still working through the proposed approach, and ASX was keen to understand member's expectations around the group, but preliminary views included:

- The new industry forum could be a sub-committee of the Business Committee – a more detailed forum at a project level
- The industry forum would meet more frequently than the Business Committee to facilitate ASX's provision of timely updates
- Members would likely have project skillsets and subject matter expertise, with the relevant attendee from Business Committee member organisations invited to participate

The Chair welcomed member feedback and asked for input on the structure, membership, frequency and material to be discussed at the industry forum. ASX expected to engage further with Committee members towards the end of January on the industry forum, and for it to be stood up in the first quarter of 2023.

An industry association member confirmed members would need time to consider their views, and that if the new industry forum ends up being a detailed technical sub-committee of the Business Committee, the interaction and connection between the two would be very important.

An AMO member asked how much influence ASX expected its regulators to have over its governance structure going forward and the structure of the forum. The Chair confirmed ASX would continue to engage with its regulators, to clarify and agree the approach forward.

A participant member noted that from a custodian perspective, a key area for clarity going forward is the identity of the CHESSE replacement project – will it be a project to update/replace existing clearing and settlement architecture, or is the project a launching pad for future functionalities. In other words, will it be a like-for-like technological upgrade, or a transformational upgrade delivering new corporate actions functionality, real time gross settlement etc. The member noted this distinction was important and would give the industry clarity on the purpose with respect to

clearing and settlement, and the level of investment and energy required from industry. The Chair acknowledged this feedback as extremely valuable. An industry association member commented that given this is national infrastructure the purpose and objectives of the solution redesign are critical.

c) Assurance program update

ASX's Chief Risk Officer advised that following ASX's announcement on 17 November, the assurance program had been temporarily paused. The assurance program as it existed pre 17 November needed to be closed out; EY's third report under ASX's additional licence conditions still had to be completed. EY was on track to deliver its report to ASX the week before Christmas.

From a forward-looking perspective, ASX was working on what the assurance program will look like for the solution design phase of the project, the topics it will cover and how wide and deep it will be. ASX was in discussion with a few firms that could potentially be engaged for that work, and ASX needed to build out a statement of work for approval by its Clearing and Settlement Boards and to be shared with regulators. The assurance work would need to be completed around the time of a decision on the solution design, and ASX was considering whether the assurance report would be shared with members. After that decision point, the program of assurance work would be developed, and would continue to be subject to EY's six monthly public reports.

Member discussion:

A participant member noted that ASX's announcement to pause the project on 17 November felt sudden, and asked about lessons learned from a project governance and continuous disclosure perspective. ASX's Chief Risk Officer confirmed that ASX was still working through lessons learned for the assurance program, and that they would be built into the assurance program for the execution phase of the new project. The assurance program had reviews scheduled on some but not all of the topics that were covered by Accenture's review (for example, performance and scalability), and these reviews had been delayed at the beginning of 2022 and then became superseded by Accenture's review. The assurance program also included a range of governance reviews with some findings that the project responded to. The assurance program was subject to EY's independent expert reports and they twice found the program to be fit for purpose. ASX would assess any additional topics to be added to the assurance program for the execution phase, and this would be dependent upon the chosen solution. ASX's Chief Risk Officer noted the company's confidence in its continuous disclosure related to the CHES replacement project.

AGENDA ITEM 4: MAINTAINING THE STABILITY OF EXISTING CHES

The ASX General Manager, Securities and Payments Technology provided an update on ongoing work to support and maintain the existing CHES system. This work included:

1. A review of internal and external resources required to support CHES (people and partners that assist with support).
2. A review of the layered components of the infrastructure stack that make up CHES (i.e. hardware, operating systems, software, databases etc) to identify what components will go out of support and necessary actions.
3. A review of capacity and performance scalability if the trade volumes were to increase exponentially.
4. An overall risk assessment and action plan to mitigate risks, including a security standards review.

Key activities on ASX's roadmap included:

- An upgrade of front-end hardware and operating system, which was well underway. There are no code changes from ASX, nor are there any code changes for CHES users. ASX's test cycle will include a User Acceptance Testing phase (targeted around March and May 2023) prior to go-live in June 2023.

- An upgrade to hardware security devices (HSM devices), which were announced by the vendor as end of life in December 2023. This will include code changes for ASX and ASX was nearing completion of its API mapping of these new devices. ASX development, coding and testing is scheduled to commence in February 2023. ASX was detailing the delivery plan and timeline with its vendor and ASX was yet to determine if there are code changes for CHES users. ASX would continue to keep relevant stakeholders informed as it worked through the plan.
- Relevant to ASX customers that have specific client connections via AnyConnect – an upgrade is required by clients. A notice was sent by ASX’s CTS team on 16 November to applicable customers with links and instructions. CTS would monitor and follow up with applicable customers until complete.

The program of work to support and maintain current CHES would be governed by a monthly steering group, weekly meetings, monthly board reporting, and risk and issue management oversight with an independent assurance review for the program being planned.

Member discussion:

A participant member asked whether ASX would disclose financial data (if not amounts, percentages) about its investment in existing and new CHES, and how it would balance the investment between the two from a budget perspective. The ASX Group Executive, Securities and Payments noted ASX published management accounts for the clearing and settlement facilities, which included data on costs to maintain the current system. ASX’s priority would always be the production system, and there was no contention from a funding perspective.

An industry association member asked whether the hardware replacement work on existing CHES would lead to further increases in the capacity of existing CHES. The ASX General Manager, Securities and Payments Technology advised the hardware upgrade was a front-end upgrade, and would not result in capacity improvement. ASX’s workplan includes planning a test on capacity. The ASX Group Executive, Securities and Payments noted that capacity needed to be managed - some customers had asked if they could increase activity volumes, and that ASX’s operating rules asked customers to notify ASX of material changes to business.

A participant member asked whether ASX had modelled headroom for the existing system, and how long it can continue in service. The ASX Group Executive, Securities and Payments confirmed ASX had modelled based on past and predicted future growth, and had tested to 10 million trades within the existing 6-hour trading window. ASX would continue to expand the scope of its testing. ASX did not consider that CHES had a ‘shelf-life’ per se, noting this needed to be viewed in terms of both supportability and the ability to make changes.

A participant member asked whether ASX had an internal assessment of the date by which it had decided to switch off existing CHES. The ASX Group Executive, Securities and Payments confirmed ASX did not and that ASX had processes and risk assessments for considering such matters.

An industry association member clarified whether the limitation to current CHES was mostly in VMS supporting hardware, and whether this could be virtualised and scaled out. The ASX General Manager, Securities and Payments Technology noted there was scope to change more than the hardware in existing CHES, but this would likely require more testing on the CHES user side, which needed to be weighed up. ASX’s first step was to test the system’s scale and then assess possibilities for change and increases to performance.

A registry member asked whether existing CHES could technically facilitate a move to T+1 settlement. The ASX Group Executive, Securities and Payments confirmed existing CHES could facilitate participants settling T+1, but that this was more a matter for industry consideration.

AGENDA ITEM 5: OTHER MATTERS

a) Forward work program

Referring to the forward work program, the Chair outlined the items planned for discussion in 2023.

The Chair welcomed feedback and suggestions for agenda items for future meetings.

Member discussion:

A participant member asked whether there was a plan for a review of the cost of clearing and settlement going forward (i.e. price reductions). The ASX Group Executive, Securities and Payments noted that the ACCC was currently performing a review of clearing and settlement pricing; the work was ongoing. The participant member asked when the review was expected to be finished, and whether it would be published. The ASX Group Executive, Securities and Payments advised that ASX would provide any update from the ACCC on whether the pricing review will be made public, and noted that the timing was currently impacted by delays to the replacement of the system.

b) Any other business

The Chair noted two actions from the previous meeting remained open (and subsequent to the meeting, one action from the previous meeting remained open), and noted three new actions from the meeting. Refer to action items above.

The Chair thanked the Committee for their contributions and conversation.

c) Next meeting – 22 March 2023

The next meeting is scheduled for 22 March 2023, from 12.00 to 2.00pm. ASX would distribute calendar invitations for all the meetings to be held in 2023.

The meeting closed at 5.40 pm.

Signed as a correct record of the meeting.

Chair

Date

Business Committee Report to the Boards of ASX Clear and ASX Settlement

Business Committee Meeting

At its 30 January 2023 special meeting, the Business Committee was updated on a proposed draft Charter for a new industry forum, a CHES Replacement Technical Committee.

KEY ISSUES DISCUSSED

Key points from the discussion about the draft Charter circulated in advance of the meeting included:

- i. Mixed views on whether a smaller group would be more conducive to the purpose and role of the Committee, versus a larger group for greater inclusion.
- ii. Acknowledgement of the need to progress with pace to establish the forum, and in parallel refine the membership as needed going forward, with support for the suggestion to perform a review into the operation of the Technical Committee some months into its establishment.
- iii. Interest to understand the governance aspects of the Technical Committee, including the relationship to the Business Committee and the Boards of ASX Clear and ASX Settlement, as well as a broader interest in what other changes are being introduced with ASX's governance of the project.

AGREED ACTIONS

Three new actions were raised at the meeting:

1. ASX to provide an update regarding the process for recommendations from the Business Committee to the Boards of ASX Clear and ASX Settlement, including where a recommendation is not adopted.
2. ASX and members to review the Charter of the Business Committee in light of the new CHES Replacement Technical Committee and queries about the making of recommendations.
3. ASX to amend the draft Charter of the CHES Replacement Technical Committee to include that the forum will provide input on the scope of the CHES replacement project (i.e. whether the project would be a like-for-like replacement of CHES, or the scope could be changed so as to, for example, extend to additional functionality).

Draft minutes from the meeting are attached.



Agenda

Business Committee – Special Meeting

Date	30 January 2023	Time	1:30pm- 3:00pm
Location	Virtual (MS Teams)		

1. Welcome and housekeeping		1.30pm-1.40pm
2. CHESS Replacement Technical Committee – draft Charter		1.40pm- 2.55pm
a) Introduction		
b) Draft Charter		
c) Worked examples		
3. Other Matters		2.55pm- 3.00pm
a) AOB		
b) Next meeting – 22 March 2023		

Action Items*

*For historical action items please refer to archived minutes [here](#).

Item number#	Action	Due date	Status	Owner
2022 Apr (1)	ASX to consider forums in which non-cash equity conversations can be undertaken, including Austraclear and recent issues and challenges for market repo transactions	July 2022	Completed	ASX
2022 Oct (1)	ASX to amend the draft minutes from 13 July 2022 meeting to reflect the status of the 17 streams of CHES replacement work	Dec 2022	Completed	ASX
2022 Oct (2)	ASX to consider publishing a policy regarding treatment of ETO expiry on a closure day (e.g. late announced public holiday, core technology outage etc)	Dec 2022	Open	ASX
2022 Oct (3)	ASX to discuss with ASIC demands on the industry, in the context of the potential concurrency of consultation on ASIC Report 708 and CHES replacement	Dec 2022	Completed	ASX
2022 Oct (4)	ASX to review the wording in its Clearing and Settlement Fee Schedule describing the discount available	Dec 2022	Completed	ASX
2022 Dec (1)	Members to provide feedback on the structure, membership, frequency and material to be discussed at the new industry forum	Mar 2023	Open	ASX and BC Members
2022 Dec (2)	ASX to engage with members on the purpose and objectives of the CHES replacement project	Mar 2023	Open	ASX
2022 Dec (3)	ASX to provide any update from ACCC on whether the pricing review will be made public	Mar 2023	Open	ASX
2023 Jan (1)	ASX to provide an update regarding the process for recommendations from the Business Committee to the Boards of ASX Clear and ASX Settlement, including where a recommendation is not adopted.	Mar 2023	Open	ASX
2023 Jan (2)	ASX and members to review the Charter of the Business Committee in light of the new CHES Replacement Technical Committee and queries about the making of recommendations.	Mar 2023	Open	ASX and BC Members
2023 Jan (3)	ASX to amend the draft Charter of the CHES Replacement Technical Committee to include that the forum will provide input on the scope of the CHES replacement project (i.e. whether the project would be a like-for-like replacement of CHES, or the scope could be changed so as to, for example, extend to additional functionality).	Mar 2023	Open	ASX

Business Committee Members

Company	Name	Job Title	Apologies
ABN AMRO CLEARING	Adrian Rubin	Chief Executive Officer, APAC	
AFMA	Damian Jeffree	Senior Director of Policy	
ASX	Val Mathews	Business Committee Chair and Chief Operating Officer	
ASX	Jamie Crank	Acting Co-Group Executive, Markets and General Manager, Trading	
AIRA	Ian Matheson	Chief Executive Officer	
ACSA	David Travers	Chief Executive Officer	
ASA	Fiona Balzer	Policy & Advocacy Manager	
AUSIEX	Patrick Salis	Chief Executive Officer	
BANK OF AMERICA	Stephen Hacker	Director, Head of Operations	
BELL POTTER SECURITIES	Robert Tesoriero	Settlements Manager	Apology
BNP PARIBAS	Mark Wootton	Head of Custody Product Aust & NZ	
BOARDROOM	Martin Jones	General Manager Corporate Governance & Director	
CBOE	Mike Aikins	Chief Operating Officer, APAC	
CITI	*Andrew Gibson	Director – Head of Custody and Clearing Australia & NZ	Christopher Moore - Manager – Direct Custody & Clearing
CMC	Andrew Rogers	Director of Broking Business	
COMMSEC	Sheridan Thompson	Head of Industry Engagement & Process Improvement	
COMPUTERSHARE	Scott Hudson	General Manager – Market Liaison	
CREDIT SUISSE	Winston Loke	Australian Equities COO	
FINCLEAR SERVICES	David Ferrall	Founder, Managing Director & CEO	
GOLDMAN SACHS	Yen Le	Executive Director	
GIA	Megan Motto	Chief Executive Officer	
HSBC	Toni Icevski	Head of Client Services, Securities Services	Apology
J.P. MORGAN	Jonathan Evans	Head of Custody & Markets Operations	
LINK MARKET SERVICES	Peter Jackson	Chief Operating Officer	
MACQUARIE GROUP	James Indge	Cash Equities Business Manager	
MORGAN STANLEY	*Rebecca Collins	Head of Operations, Institutional Equities	Rebecca Hill, Chief Operating Officer
MORGANS	Daniel Spokes	Director, Client Support Services	
NAB	Anita Mead	Head of Business Management, Self- Directed Wealth	
NSX	Chan Arambewela	Chief Operating Officer	

SIAA	Judith Fox	Chief Executive Officer
SYDNEY STOCK EXCHANGE	Steven Larkins	General Manager, SSX Market Operations Apology
UBS	Scott Hanlon	Head of Operations, Executive Director

* Delegate

ASX Management

Name	Job Title	Apologies
Tim Hogben	Group Executive, Securities and Payments	
Hamish Treleaven	Chief Risk Officer	
Dan Chesterman	Group Executive, Technology and Data, and CIO	
Tim Whiteley	Project Director, CHES Replacement Project	
Sally Palmer	Deputy General Counsel	
Katie McDermott	General Manager, Business Design, CHES Replacement Project	
Diane Lewis	General Manager, Head of Regulatory Affairs	
Keith Purdie	Senior Manager, Equity Post Trade, Securities and Payments	
Con Korkofigas	Senior Legal Counsel and Senior Manager	

Observers

Name	Job Title	Apologies
Greg Yanco	Executive Director, Markets (ASIC)	
Nathan Bourne	Senior Executive Leader, Market Infrastructure (ASIC)	Apology
Dodie Green	Senior Manager, Market Infrastructure (ASIC)	
Andia Petropoulos	Senior Analyst, Market Infrastructure (ASIC)	
Kylie Stewart	Senior Manager, Financial Market Infrastructure, Domestic and Payments (RBA)	
Stephanie Bolt	Manager, Financial Market Infrastructure, Domestic and Payments (RBA)	Apology
Tatiana Moiseeva	Lead Analyst, Financial Market Infrastructure, Domestic and Payments (RBA)	

AGENDA ITEM 1: WELCOME AND HOUSEKEEPING

The Chair welcomed members and delegates to the special meeting, convened out of cycle. One recent membership change was noted; Adrian Rubin was welcomed as the member for ABN AMRO Clearing (replacing Barry Parker).

Robert Tesoriero (Bell Potter Securities), Toni Icevski (HSBC) and Steven Larkins (Sydney Stock Exchange) were apologies. Christopher Moore (Citi), was represented by a delegate, Andrew Gibson. Rebecca Hill (Morgan Stanley), was represented by a delegate, Rebecca Collins.

Attending as observers were ASIC representatives Greg Yanco, Dodie Green and Andia Petropoulos (Nathan Bourne was an apology), and RBA representatives Kylie Stewart and Tatiana Moiseeva (Stephanie Bolt was an apology).

The agenda and draft Charter were distributed to all members a few days in advance of the meeting.

The minutes and actions from the December 2022 meeting would be carried forward to the next meeting.

The Chair acknowledged feedback to date regarding the new industry forum, including:

- It was important that the forum provides a mechanism for more frequent and regular updates regarding the CHES replacement project, recognising that there can be a time lag with the standard quarterly schedule of Business Committee meetings.
- The need for greater visibility and transparency regarding the interaction between the Business Committee, stakeholder feedback and the ASX Boards.
- The need to keep the new forum right sized and having the right technical people, potentially reducing the number of members (relative to the Business Committee) so that that is a fast-moving and efficient forum.

AGENDA ITEM 2: CHES REPLACEMENT TECHNICAL COMMITTEE – DRAFT CHARTER

a) Introduction

The Chair provided background and context to ASX's suggestion that the new industry forum, the CHES Replacement Technical Committee, be a sub-committee of the Business Committee. The new Technical Committee was intended to supplement, not replace, existing engagement channels including re-establishing CHES replacement working groups at the appropriate time. Key points included:

- All aspects of the draft Charter were open for debate and discussion.
- ASX had engaged external legal counsel (King & Wood Mallesons) to provide input and review on setting out a framework.
- AFMA and SIAA provided constructive feedback and revision to an early version of the draft Charter.
- GIA had provided some feedback in advance regarding the size of the new forum and governance while noting the short timeframe between receiving the draft Charter and this meeting.
- ASX explained the relationship between the Business Committee and the CHES Replacement Technical Committee, and the pathway to the Boards of ASX Clear and ASX Settlement to give consideration to any material matters that are raised or any recommendations that come through from the Business Committee.
- ASX had given consideration to a number of options regarding the Chair of the CHES Replacement Technical Committee, and on balance recommended an ASX Chair of Tim Whiteley. Points for consideration included consistency with how ASX currently chairs the Business Committee, consistency with the previous ISO 2022 Technical Committee (also a sub-committee of the Business Committee, chaired by ASX), as well as to provide synergies with ASX providing secretarial services.

b) Draft Charter

The ASX Project Director, CHES Replacement Project stepped through each section of the draft Charter, and noted ASX's preference to move quickly in establishing the Technical Committee.

Member discussion:

Section 1 - Purpose

- An industry association member confirmed they were supportive of the intent and drafting of Section 1 (Purpose).
- Another industry association member questioned the broader purpose of this new industry forum and strengthening governance and accountability arrangements. Clarity around whether the new industry forum was a steering/governing group or an expert advisory technical group was key, noting their reading of Accenture's report that it needed to be a steering group. If the purpose of the group was an expert advisory technical group, the industry association member was comfortable with the drafting of Section 1 (Purpose). The Chair noted that they considered the CHES Replacement Technical Committee to address both governance and technical detail, and to allow for reporting up to the Business Committee and Boards of ASX Clear and ASX Settlement.
- Another industry association member confirmed they considered the CHES Replacement Technical Committee sufficiently addressed governance and technical detail, and the purpose was right.
- Regarding the relationship between the Technical Committee and the Business Committee, a participant member noted that it would be helpful to gain a better understanding of the process (from an impact, ongoing capability and governance perspective) when the Business Committee makes a recommendation to ASX's Boards and in an instance where ASX's Board does not accept the recommendation. The Chair confirmed ASX would provide greater clarity on this.
- An industry association member recommended a review of the Business Committee charter, specifically in relation to its role and queries about the making of recommendations.

Section 2 – Roles of the CHES Replacement Technical Committee

- A share registry member questioned the relationship between this new Committee and formal industry consultation, noting there was no decision making authority built into the role of the new Committee. The Chair confirmed that industry consultation would occur where consideration of wider input was necessary, given this new forum could not necessarily represent the views of the entire market.
- A participant member recommended an insertion to the draft Charter to address this forum providing input on the scope of the CHES replacement project (i.e. whether the project would be a like-for-like replacement of CHES, or the scope could be changed so as to, for example, extend to additional functionality). The ASX Project Director, CHES Replacement Project confirmed ASX would amend the draft Charter to reflect this feedback.

Section 3 – Membership

- An industry association member expressed concern at the size of the Technical Committee, recommending a purposely small solutions-oriented group and the Business Committee having (as it currently does) broader industry representation. The member suggested a stakeholder mapping exercise to identify key stakeholders and a rationalisation of members who represent the same segment of the market. Another industry association member believed the practical benefits of a smaller Committee was outweighed by concerns of exclusion, and supported the proposed membership structure in the Charter based on the importance of ensuring a broad range of impacted stakeholders have the ability to review, debate and provide input, as well as the benefit of members hearing perspectives from other impacted stakeholders to come to solutions that work for the market overall. A participant member added that it should not be assumed that the same types of participants would have the same views, and that it would be challenging to nominate one representative to adequately represent a shared view of their cohort. The participant member also echoed concerns about being excluded from the Committee.

The ASX Project Director, CHES Replacement Project noted there were challenges with both a smaller or larger Technical Committee and on balance ASX recommended the larger membership.

- There was general consensus that industry associations would attend the meetings as observers.
- Regarding the skill-set or type of representative for the Technical Committee, a share registry member noted difficulty in having one representative that is sufficiently technically-minded as well as bringing a governance perspective. They raised concerns that this could be detrimental to project governance. The ASX Project Director, CHES Replacement Project suggested an SME who can understand impacts and provide input regarding how things work in their business would be valued, rather than needing to be deeply technically minded. Also as noted previously the representative could change as the topics covered and project phase adjusted.
- The share registry member also asked if ASX was reviewing its own governance arrangements, noting concerns with past arrangements. The ASX Project Director, CHES Replacement Project confirmed that project governance was being re-shaped based on the current redesign phase of the project, and this would again change when the project moves into the implementation phase.

Section 7 – Chair of the CHES Replacement Technical Committee

- An industry association member questioned whether it was appropriate for ASX to Chair the Technical Committee from a governance and accountability perspective, and asked whether an independent Chair might be valuable to strengthen the governance arrangements and avoid any situation in which ASX might be perceived to be unduly influenced by one party over another. Another industry association member noted that given the new Technical Committee was charged with providing input, not decision making, this decreased any risk of perception of impartiality from an ASX Chair. The (Business Committee) Chair acknowledged it was a fine balance in appointing a Chair with sufficient depth of understanding to run the meetings.

Section 8 – Meetings of the CHES Replacement Technical Committee

- A market operator member noted that with a monthly cadence of meetings, it would be critical that members receive information (such as agendas, papers, minutes etc) in a timely fashion to facilitate their effective contribution.
- A share registry member asked when ASX proposed to convene the first meeting, noting there had been little time to consult within their own organisation. The Chair acknowledged this feedback and challenges in appropriately engaging with Business Committee members on the new industry forum and taking action that demonstrates its commitment to listening to that feedback, whilst moving forward with convening the forum. ASX hoped to convene the Technical Committee towards the end of February, noting this might not be in a finalised state and may require further refinement. A participant member was supportive of convening with speed, and fine-tuning over time.

The Chair acknowledged the feedback and discussion from members, and to move forward proposed to convene a first meeting of the Technical Committee in late February, on the basis of the membership structure proposed in the draft Charter, acknowledging that the structure may need adjustment as it evolved.

- An industry association member was supportive of progress over perfection, and suggested a review six months into the operation of the Technical Committee to ensure its effectiveness. Another industry association member and a participant also supported this approach.

c) Worked examples

The General Manager, Business Design, CHESS Replacement Project stepped through an example – phasing the implementation of the CHESS replacement solution – and the interplay between the CHESS Replacement Technical Committee, Business Committee and ASX Boards.

Work at the Technical Committee level would include reviewing and discussing the implementation options to understand the risks of each option, how the risks could be mitigated, and different challenges for different segments of the market. The Chair of the Technical Committee will report the outcomes to the Business Committee, and where relevant, also to the Boards of ASX Clear and ASX Settlement when there is a need to provide a timely update (all things being equal, the Technical Committee is expected to meet monthly in contrast to the Business Committee meeting quarterly).

The Business Committee would be provided with a summary of the options and how the Technical Committee decide on a preferred option or recommendation. Business Committee members will have an opportunity to discuss the Technical Committee's input and recommendation, provide any additional advice as further input for consideration by ASX management and the Boards of ASX Clear and ASX Settlement, and provide feedback to the Technical Committee. The Business Committee can also then make a recommendation to ASX management and the Boards of ASX Clear and ASX Settlement.

The chair of the Business Committee will take a leadership role in facilitating discussions and forging a consensus among members on matters being considered by the Business Committee and report to and from, the Boards of ASX Clear and ASX Settlement in relation to a recommendation and any other matters raised by the Business Committee.

ASX management and the Boards of ASX Clear and ASX Settlement will consider the input provided from the Technical Committee and the Business Committee. Consideration will also be given to whether further input is required from the market and if the matter should form part of a formal consultation process.

ASX management and the Boards of ASX Clear and ASX Settlement will make a decision that is in the best interest of the market and provision of clearing and settlement infrastructure and services. ASX will also report back the decision and the reasons for the chosen outcome via the chair of the Business Committee and the chair of the Technical Committee.

AGENDA ITEM 3: OTHER MATTERS

a) Any other business

An industry association member asked whether ASX's full year results on 16 February was the impetus for scheduling a first meeting of the Technical Committee soon after. The Chair clarified the timing of the first meeting was to progress with the right level of engagement to support ASX's timeline for revisiting the solution design and seeking stakeholder input.

b) Next meeting – 22 March 2023

The next meeting is scheduled for 22 March 2023, from 12.00 to 2.00pm.

The meeting closed at 2.45 pm.

Signed as a correct record of the meeting.

Chair

Date

Committee	Business Committee
Agenda title	Governance
Item	2a, 2b and 2c
Purpose	To facilitate discussion on the Business Committee Charter and CHES Replacement Technical Committee draft Charter, and to provide Business Committee members with an informational overview on the process for recommendations from the Business Committee to the boards of ASX Clear and ASX Settlement
Meeting date	22 March 2023
Prepared by	Business Committee Secretariat

AGENDA ITEM 2A – Business Committee Charter

The Charter for the Business Committee is published on ASX’s website [here](#). ASX invites feedback from members regarding updates to the Charter with regard to membership and the process for recommendations from the Business Committee to the Boards of ASX Clear and ASX Settlement at, or in writing following, the 22 March meeting.

AGENDA ITEM 2B – CHES Replacement Technical Committee draft Charter

Amendments to the draft Charter of the CHES Replacement Technical Committee were made subsequent to the Business Committee meeting on 30 January 2023, and shared by email with members of both the Business Committee and the CHES Replacement Technical Committee on 15 February 2023. There have been no further drafting changes since, and ASX will provide an update at the meeting regarding how it proposes to handle additional requests for membership to the CHES Replacement Technical Committee.

ASX invites further feedback from Business Committee members regarding the attached draft version (Attachment A).

ATTACHMENT A – Draft Charter

AGENDA ITEM 2C – Process for recommendations from Business Committee to ASX Clear and ASX Settlement Boards

Background

ASX’s Cash Equities Clearing and Settlement [Code of Practice](#) (Code of Practice) sets out ASX’s commitment to comply with the Regulatory Expectations for the Conduct of Cash Equity Clearing and Settlement Services in Australia ([Regulatory Expectations](#)), and its commitments to customers and other stakeholders in managing cash equities clearing and settlement infrastructure and services for the Australian market.

Further information and historical context on the Code of Practice is published on ASX’s [website](#).

The first section of ASX’s Code of Practice sets out commitments to customer and stakeholder engagement, including:

The Boards of ASX Clear and ASX Settlement will give due consideration to any material matters raised by, or recommendations of, the Business Committee. The Boards of ASX Clear and ASX Settlement will receive

recommendations of the Business Committee on a 'comply or explain' basis. If the Boards do not accept a recommendation, they will jointly provide a written explanation to the Business Committee

Further information on the ASX Clear Board and the ASX Settlement Board, including current composition, is published on ASX's [website](#).

From 2013 to 2016, the Business Committee made recommendations to the Forum, and the Forum made recommendations to the Boards of ASX Clear and ASX Settlement. Since 2017, the Business Committee is able to make recommendations to the Boards of ASX Clear and ASX Settlement. Minutes from each Business Committee meeting are published on ASX's [website](#).

Process for recommendations from Business Committee to ASX Clear and ASX Settlement Boards

The role of the Business Committee is to provide a formal mechanism for input to both ASX management and the Boards of ASX Clear and ASX Settlement. There is a process for the Chair of the Business Committee to determine a broad consensus and for those views to be put to the ASX Boards. The Boards of ASX Clear and ASX Settlement receive recommendations of the Business Committee on a 'comply or explain' basis, i.e. the Boards would take actions in accordance with recommendations from the Business Committee, or else explain why such actions had not been taken.

The Business Committee [Charter](#) states that:

A quorum for a meeting of the Business Committee is a majority of its members and the Chair. All recommendations of the Business Committee to ASX Management and the Boards of ASX Clear and ASX Settlement shall be made on the basis of a broad consensus of those members present at the relevant meeting of the Business Committee.

The Chair will determine whether a broad consensus has been achieved by confirming with each member present whether they support the proposed recommendation. In making this determination, unless notified to the contrary by the member concerned, the Chair shall be entitled to assume that a member who does not attend a meeting is prepared to accept any recommendation on a matter, of which notice was given in the agenda for the meeting, made by those members who are present at the meeting.

All meetings of the Business Committee are to be minuted. The minutes will be circulated to members electronically following each meeting for comment and approval to allow the minutes to be included in the agenda for the next meeting of the Boards of ASX Clear and ASX Settlement.

Any reports from the Business Committee to the Boards of ASX Clear and ASX Settlement will be prepared by the Chair and will be circulated to members electronically following each meeting for comment and approval to allow the reports to be included in the agenda for the next meeting of the Boards of ASX Clear and ASX Settlement.

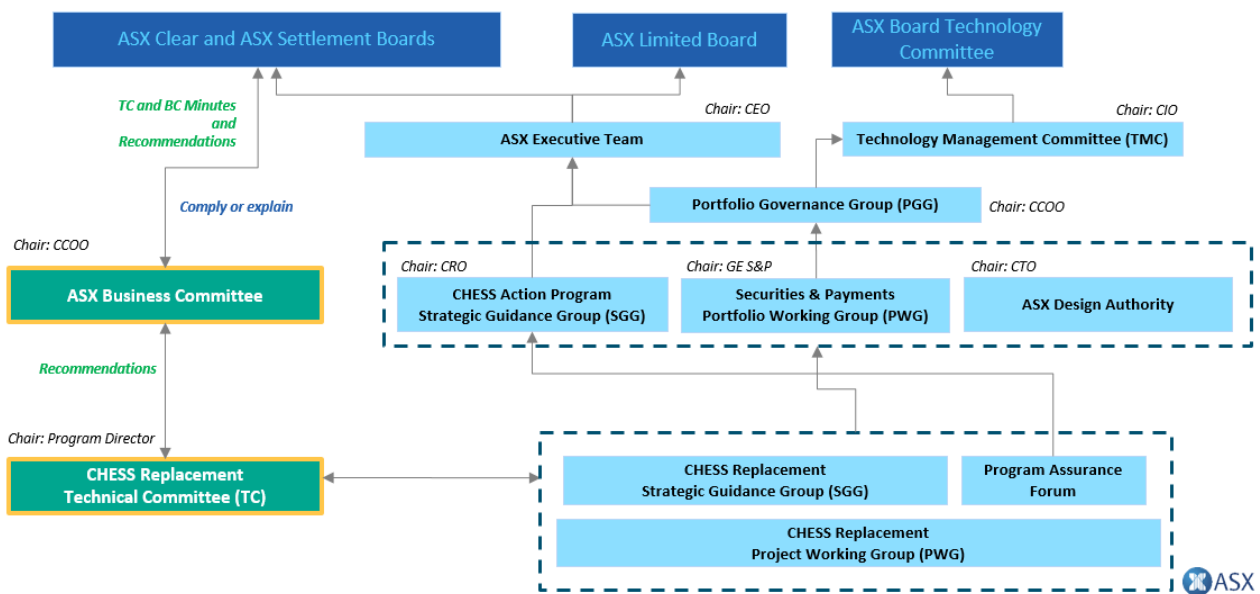
In line with the Charter, discussions and recommendations reached at the Business Committee are minuted. A report to the Boards of ASX Clear and ASX Settlement is prepared from each meeting, including actions, key discussion points, and where applicable, recommendations to the Boards of ASX Clear and ASX Settlement. Minutes from each meeting are ratified by members, and accompany the report to the Boards of ASX Clear and ASX Settlement.

Relationship with CHES Replacement Technical Committee - CHES Replacement Governance Diagram (as at March 2023)

The CHES Replacement Technical Committee is a sub-committee of the Business Committee. It is an industry forum which was set up in early 2023 for:

- ASX to obtain input from impacted stakeholders to inform ASX Management and the Boards of ASX Clear and ASX Settlement in relation to its decision making and help solve issues in the replacement of ASX’s Clearing House Electronic Sub-register System (CHES)
- ASX to communicate and provide visibility to, and seek expert views and input from, impacted stakeholders on the safe and successful delivery of CHES replacement
- Impacted stakeholders to obtain input that informs their own decision making

In the context of the CHES replacement project, the relationship between the Business Committee and the CHES Replacement Technical Committee is included in the diagram below.

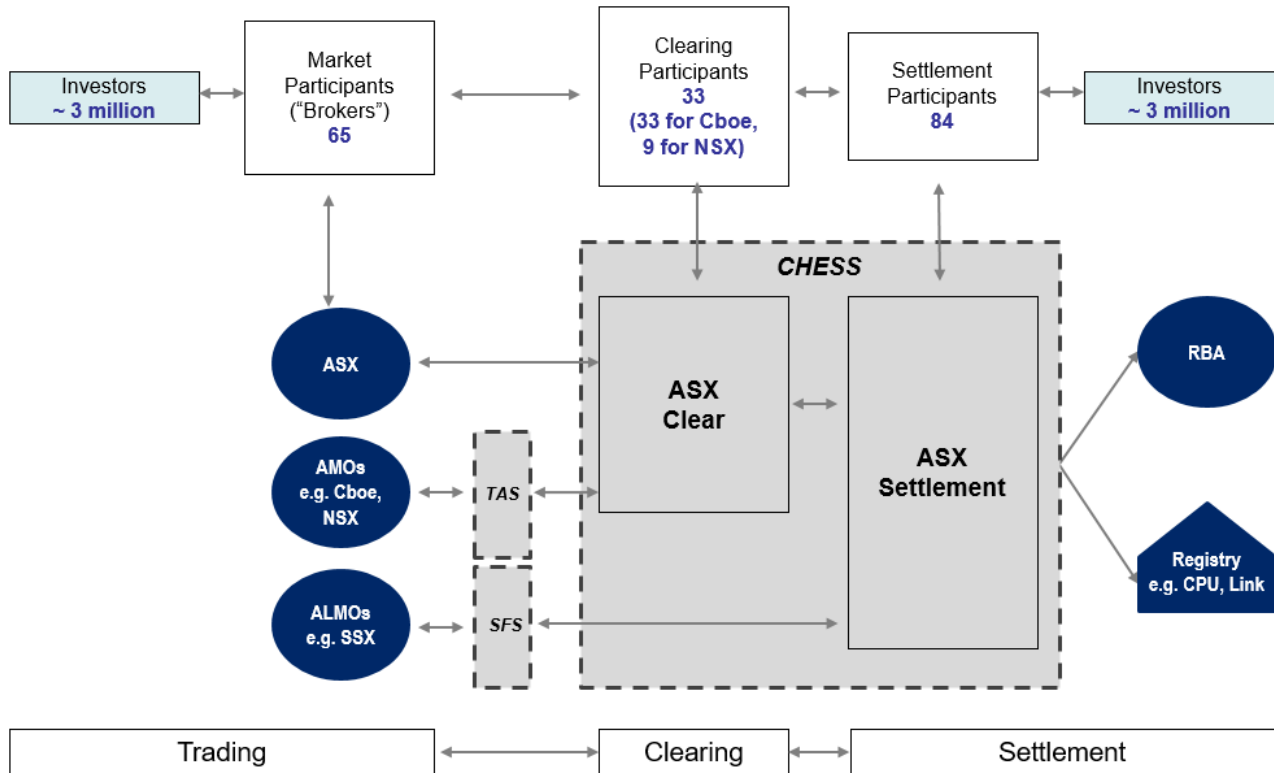




Committee	Business Committee
Agenda title	Cash market clearing and settlement services - Operational performance
Item	3a
Purpose	To report on key performance metrics for ASX's clearing and settlement services
Meeting date	22 March 2023
Prepared by	General Manager, Securities & Payments Operations (Suzy Munro) Senior Manager, Settlement Operations (Brendan Laird)



Market Structure Overview



The clearing and settlement of equities performs a critical role in the operation of Australia’s financial markets, helping to reduce counterparty and systemic risk, and provide transaction efficiency and certainty for end investors.

Core processes that provide these benefits include novation, netting and settlement.

Novation

Through a contractual process known as novation, ASX Clear becomes the seller to every buyer and the buyer to every seller, making it liable for completing all cleared transactions on the relevant market. Novation performs two important functions:

- it replaces the clearing participants’ credit exposures to other clearing participants by substituting the clearing house as the central counterparty; and
- it maximises capital efficiency for clearing participants by permitting a single net exposure to be calculated and collateralised between the clearing house and each clearing participant.

Through novation, ASX Clear provides protection to non-defaulting clearing participants (and, indirectly, their clients) from the inability of a defaulting clearing participant to meet its obligations.

A key metric for monitoring novation is the percentage of on and off market trading that is novated.

Trades submitted for clearing and settlement by any market operator are verified prior to registration by ASX Clear. If the verification conditions are not satisfied then trades are rejected. Once a trade is registered it is novated. Novation is deemed to be effective from the matching of bid/offer (on market trades) or recording of the trade (reported trades) for all trade execution venues.

Netting

ASX Clear is approved as a 'netting market', and ASX Settlement is an 'approved netting arrangement', for the purposes of the Payment Systems and Netting Act. This gives legal certainty to the netting of settlement obligations. Settlement on a multilateral net basis maximises market efficiency by reducing participant transaction and funding costs. A key metric for monitoring netting is the percentage by which novated value is netted down for settlement. This metric is termed "netting efficiency".

Settlement

ASX's model for settlement maximises efficiency, while minimising the risk of settlement failure. It does this by simultaneously transferring the legal ownership of shares and facilitating the transfer of money for those shares. This is done through a Model 3 multilateral net batch settlement mechanism with irrevocable settlement finality at the end of the processing cycle. The transfer of money occurs across the Exchange Settlement Accounts of payment providers in the RBA's Information and Transfer System (RITS).

A key metric for monitoring settlement is the percentage of scheduled settlement that successfully settles (i.e. the opposite of the "fail rate"). This metric is termed "settlement efficiency".

Service availability

ASX's critical processes of novation, netting and settlement are supported in ASX's core system CHES. It is critical for market operations, that CHES remains stable and available for processing. A key metric for monitoring systems availability is the percentage of systems uptime as measured against target availability times. The service availability target for CHES is 99.80%.

For the March 2023¹ quarter, the average monthly system availability was 100% for CHES. The average monthly availability of CHES has been 99.99% between November 2011 and February 2023.

Trade Acceptance Service and Settlement Facilitation Service

ASX Clear and ASX Settlement's Trade Acceptance Service (TAS) provides a mechanism for Cboe and NSX to submit trades into CHES and the Settlement Facilitation Service (SFS) provides settlement arrangements for unaffiliated Approved Listing Market Operators (ALMOs) in respect of the CHES-eligible financial products listed on their markets (SSX). The CHES system performs the clearing and settlement functions.

The Trade Acceptance Service and Settlement Facilitation Service availability target is 99.80% (the same as CHES).

For the March 2023¹ quarter, the average monthly system availability was 100% for the TAS and Settlement Facilitation Service. The average monthly availability of the TAS and SFS has been 99.99% between November 2011 and February 2023 (the same as CHES).

Reporting on clearing and settlement service performance

The key metrics noted above on novation, netting efficiency and settlement efficiency for the March 2023¹ quarter are reported in Attachment A. They are also supported by charts demonstrating a longer reporting period in Attachment B.

Settlement Performance

A performance metric for monitoring the CHES settlement batch is the fail performance.

For the March 2023¹ quarter, the daily average fail performance has increased to 0.28% and averaged 0.257% for the previous twelve months, between March 2022 and February 2023.

The daily average fail performance was 0.29% over the 3 year period from March 2020 and February 2023.

ASX Settlement Operations review daily settlement data for recurring trends in the settlement failure rate, to monitor and ensure there are no systemic issues.

¹ As of 28 February 2023

Month	February	January	December	November	October	September
Average Fail Rate	0.220%	0.339%	0.217%	0.315%	0.270%	0.324%
Maximum Fail Rate	0.739%	3.938%	0.311%	0.634%	0.414%	2.329%
Minimum Fail Rate	0.117%	0.098%	0.100%	0.124%	0.145%	0.109%
# of days Fail rate > 0.50%	1	1	0	2	0	2
Batch Settlement Extensions	1	0	1	3	0	1
Fall back of Payment Provider	0	0	0	0	1	0

Record one day fail rate (3.938%) in January 2023

A record fail rate occurred on Friday 27th January 2023, exceeding the previous 3 record high fail rates set during the market events during March and April 2020.

One Participant failed to deliver a significant number of market obligations due to a system issue, creating a knock-on impact to other Participants. The system issue was related to the Participant's initial implementation of the new Signal B FIX interface. The Participant relied upon Signal B data to prepare for settlement and this activity did not complete ahead of the commencement of CHESS Settlement Batch on 27th January.

An error in a data field contained within the new Signal B FIX interface, was discovered during the Participant's implementation in production. The Participant needed to roll back the change and the data field error required ASX remediation.

ASX released an updated version of the Signal B FIX interface on 31 January and extended the production parallel period by 2 weeks, until 17 February 2023.

ASX worked with the Participant to support enhanced integrated testing between Signal B FIX interface and downstream systems, in preparation for their successful cutover and no further issues were experienced.

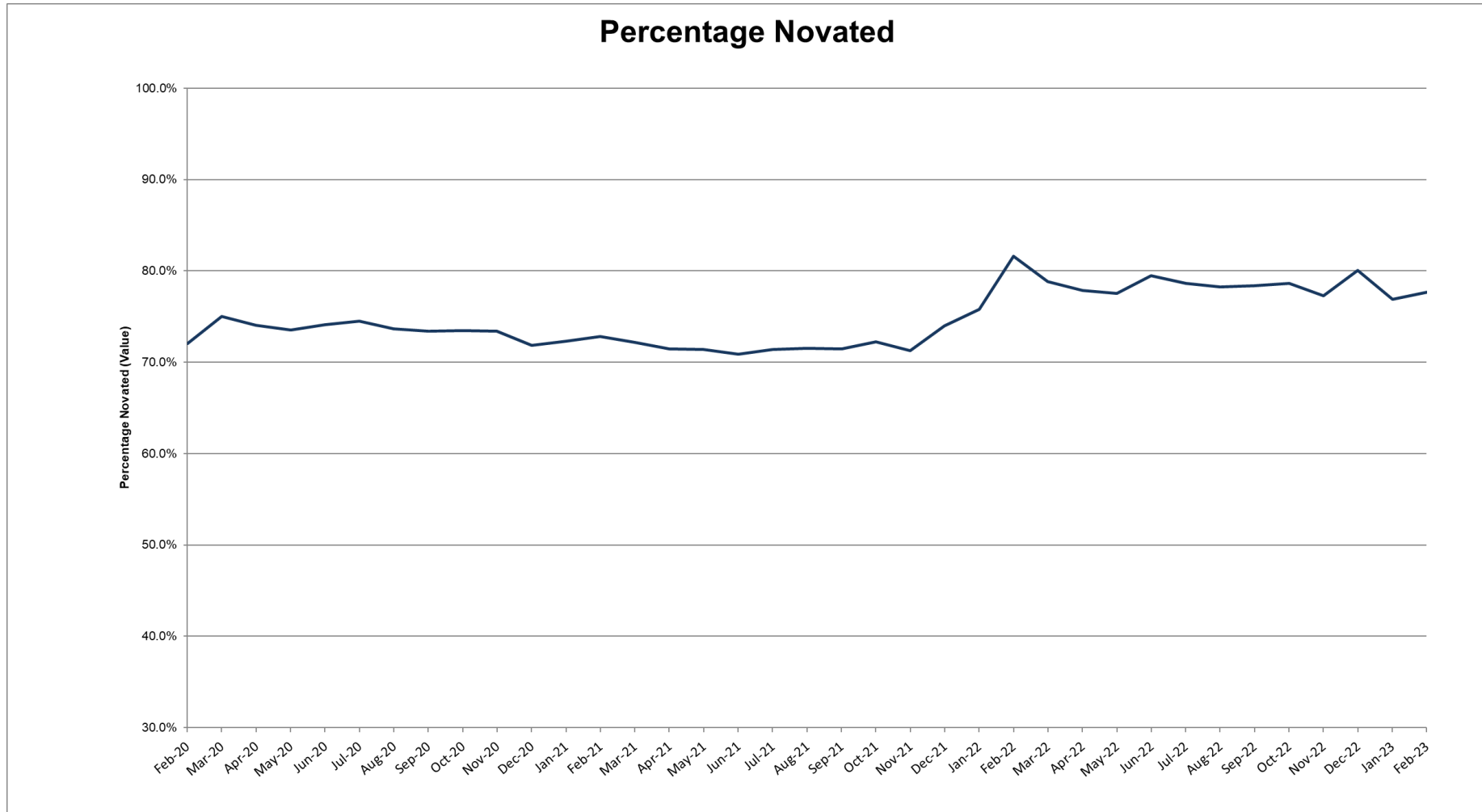
ATTACHMENT A – SUMMARY METRICS RELATING TO THE PERFORMANCE OF ASX'S CLEARING AND SETTLEMENT SERVICE

	March 2022 Quarter ¹	December 2022 Quarter	September 2022 Quarter
System Availability (CHES)	100%	100%	100%
System Availability (TAS)	100%	100%	100%
Total Trades Accepted (ASX)	55,847,529	98,386,425	117,615,336
Total Trades Rejected (ASX)	2	0	2
Total Trades Accepted (Cboe)	19,207,095	32,365,720	37,030,792
Total Trades Rejected (Cboe)	0	0	0
Total Trades Accepted (NSX)	60	177	167
Total Trades Rejected (NSX)	0	1	0
Total Settlements (SSX)	0	2	0
Total Value of Settlements (SSX)	\$0	\$960	\$0
Daily Average Traded Value (On and Off Market) *	\$9.70 billion	\$10.58 billion	\$10.59 billion
Daily Average Cleared Value *	\$7.50 billion	\$8.32 billion	\$8.30 billion
Percentage Novated *	77.2%	78.6%	78.4%
Daily Average Cleared Value Post-Netting	\$2.20 billion	\$2.26 billion	\$2.29 billion
Netting Efficiency (Value) *	70.6%	72.8%	72.4%
Netting Efficiency (Volume) *	98.8%	98.9%	98.9%
Daily Average Settled Value (Including Non-Novated)	\$10.70 billion	\$11.96 billion	\$11.73 billion
Settlement Efficiency (Value)	99.89%	99.85%	99.91%
Average Daily CHES Fail Rate (% Rescheduled to the next settlement date)	0.280%	0.269%	0.254%

* Commencing March 2022 quarter, Traded Volume now includes transactions (for all AMOS) with settlement status "I" (e.g. crossings, informational)

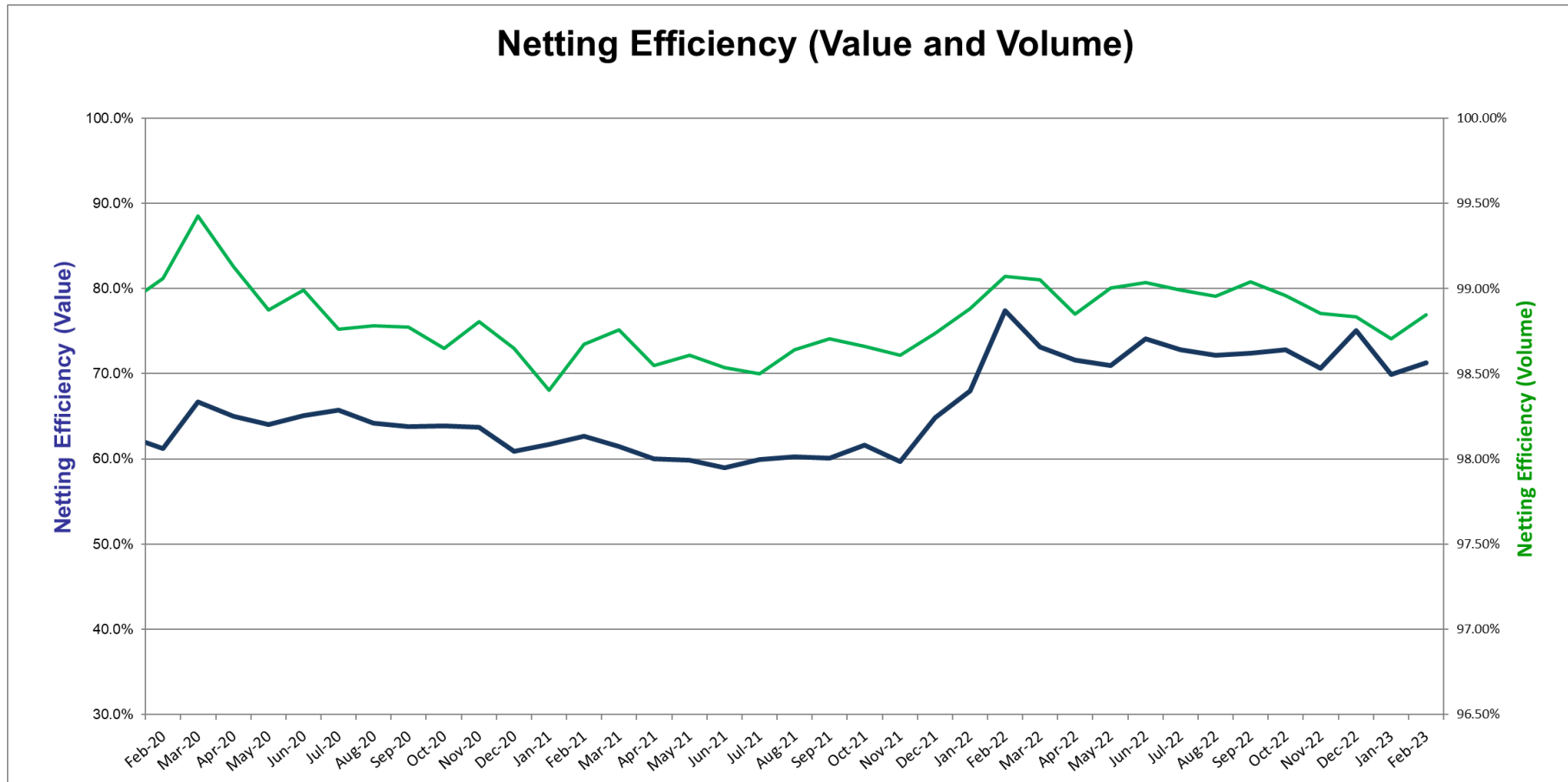
1. As of 28 Feb 2023

ATTACHMENT B – PERFORMANCE OF ASX'S CLEARING AND SETTLEMENT SERVICES FROM FEBRUARY 2020 TO FEBRUARY 2023

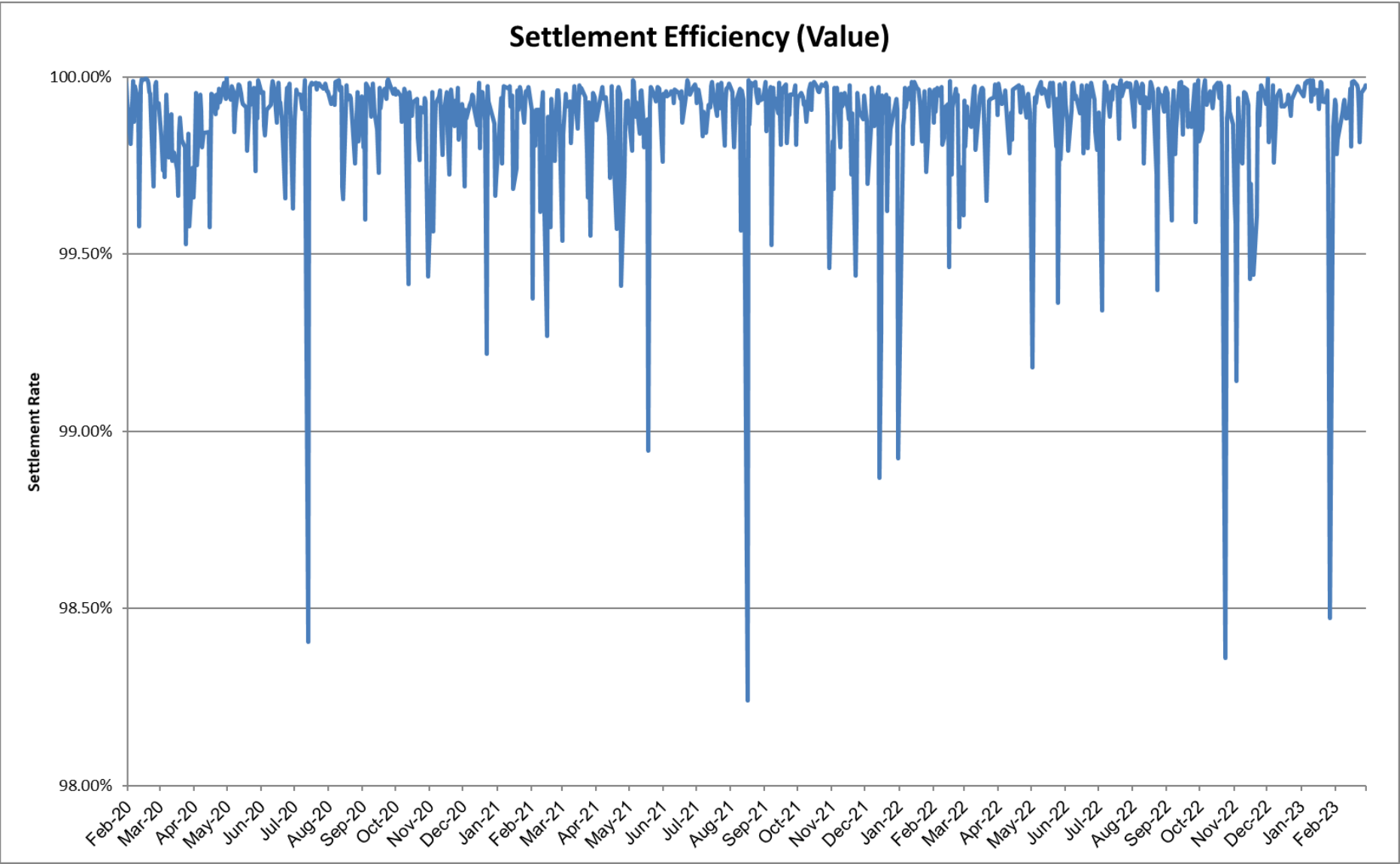


- Commencing March 2022 quarter, Traded Volume now includes transactions (for all AMOS) with settlement status “I” (e.g. crossings, informational

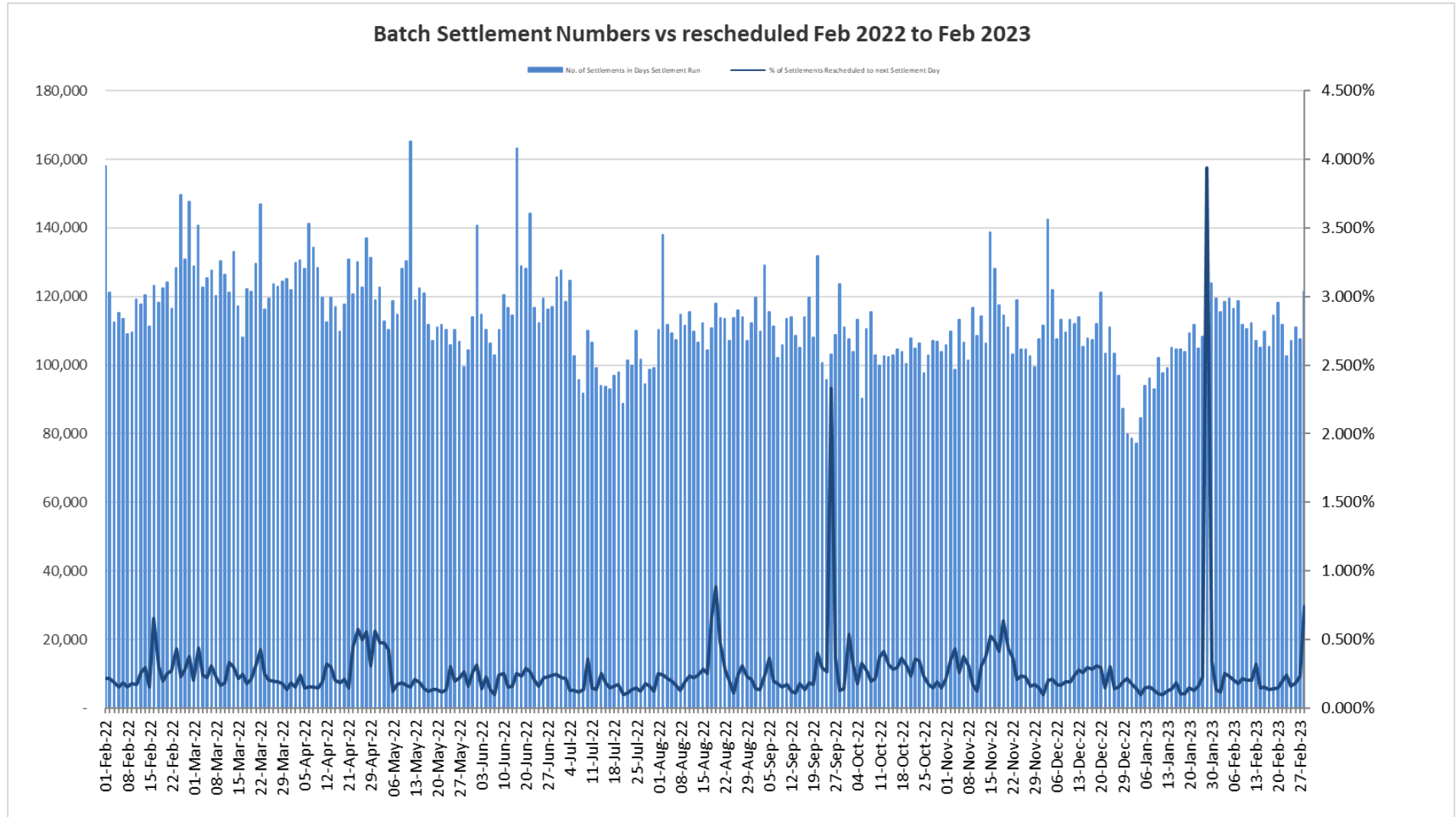
Netting Efficiency (Value and Volume)



- Commencing March 2022 quarter, Traded Volume now includes transactions (for all AMOS) with settlement status "I" (e.g. crossings, informational)



ATTACHMENT C – BATCH SETTLEMENT NUMBERS VS RESCHEDULED FEBRUARY 2022 TO FEBRUARY 2023





Committee	Business Committee
Agenda title	Update on ASX's holistic management of all CHESSE related items
Item	4
Purpose	To provide Business Committee members with an update on the holistic program of work that ASX has established to address all of the CHESSE related items
Meeting date	22 March 2023
Prepared by	Chief Risk Officer (Hamish Treleaven)


Overview

This paper and attached slide deck sets out the holistic program of work that ASX has established to address all of the CHESSE related work items and with a particular focus on the regulatory requirements announced in mid-December 2022 and mid-February 2023.

The regulatory requirements were delivered by way of either ASIC directions power notices or RBA Letter of Expectation.

The Business Committee will be kept up-to-date on the outcome of this work with almost all of it being subject to public reporting.

Attachment A – Slide deck outlining holistic work program addressing all of CHESSE related items



CHES Action Program
Business Committee
March 2023

CHES regulatory requirements and ASX CHES Action Program

14th and 15th December 2022

Media Release

ASIC – RBA Further Regulatory Response Regarding the ASX CHES Replacement Program

Number **2022-43**
Date **15 December 2022**

Today ASIC and the Reserve Bank of Australia (**RBA**) (the **regulators**) have taken further action to ensure that all necessary steps are taken by ASX to support and maintain current CHES until its replacement is successfully implemented.

- ASIC direction power notice
 - Special Report into existing CHES operational resilience
 - Audited by EY
- RBA letter of expectations
 - Current Chesh
 - CHES Replacement
 - Governance
 - Engagement

<https://www.rba.gov.au/media-releases/2022/mr-22-43.html>

CHES regulatory requirements and ASX CHES Action Program

22nd February 2023

Wednesday 22 February 2023



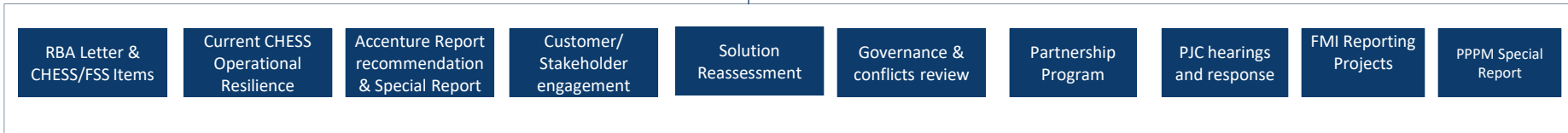
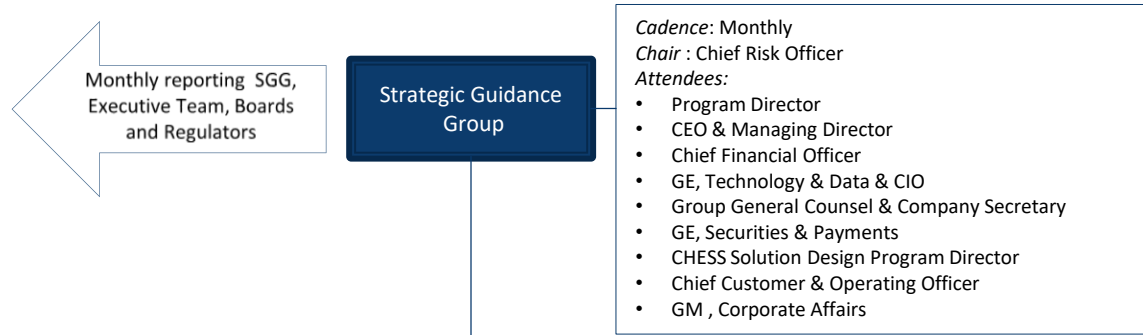
23-035MR Further ASIC regulatory response on CHES Replacement and ASX's program capabilities

ASIC has taken further action to ensure that ASX adequately responds to the findings and recommendations of the [ASX CHES Replacement Application Delivery Review](#) by Accenture (**the External Review**) and that all necessary steps are undertaken by ASX to uplift identified gaps and deficiencies in relation to the ASX Group's portfolio, program and project management frameworks.

- ASIC direction power notice
 - Special Report into response to Accenture recommendations
 - Audited by EY
- Special Report into Project, Program, Portfolio Management
- Audited by EY

<https://asic.gov.au/about-asic/news-centre/find-a-media-release/2023-releases/23-035mr-further-asic-regulatory-response-on-ches-replacement-and-asx-s-program-capabilities/>

CHES Action Program – Strategic Guidance Group



SGG Terms of Reference

Core purpose of the SGG is to provide ongoing oversight and direction for the Program, driving momentum for successful delivery.

The SGG provides a forum to:

- Escalate risks that may impact successful delivery of the project outcomes
- Escalate blockers that are inhibiting delivery
- Ensure outcomes stay aligned to achieving the Program’s Vision objectives and Benefits
- Ensure ongoing alignment to the overall organisational strategy

CHES Action Program – workstreams

Category	RBA letter and CHES/FSS items	Current CHES operational resilience	Accenture report recommendations & Special Report	Customer/Stakeholder engagement	Solution Reassessment	Governance and conflicts review	Partnership Program	PJC response and planning	FMI Reporting	PPPM Special Report
Purpose	Range of issues on current and new CHES to address outstanding FSS items Intraday margining and comingling of house/client	Resilience of current CHES to 2028. Deliver Special Report and EY audit. Continue with work program	Close out 45 Accenture recommendations. CHES specific and ASX wide. Deliver Special Report.	Coordinated customer and stakeholder engagement	Undertake solution reassessment and present business case to CS Board for approval	Undertake expert review of CHES conflicts arrangements and publish governance arrangements	Develop program to encourage ongoing project involvement and jointly meet milestones	Respond to PJC questions on notice and plan for next hearing	Provision of prudential reporting to the RBA pursuant to FSS requirements	Deliver PPPM Special Report covering details set out in ASIC notice. Audit by EY
Time period	Likely through to end of 2024	Through to 2028	Likely through to end of 2023. Special Report by 30 June 2023. Audit by 31 July 2023	Ongoing	Likely completed by fourth quarter 2023	Review likely completed by end of June 2023. Overall response ongoing through to end 2024	2023 and ongoing	Responses to questions from 23 Feb hearing due on 16 March.	Project expected to complete by Jun 2023. One aspect is extended until March 2024	Special Report by 30 Sept 2023. Audit by October 2023
Reviews or Assurance	Comments in the RBA's FSS	EY	EY	N/A	EY	HSF	N/A	N/A	Comments in the RBA's FSS	EY
Public reports	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	N/A	Yes

Committee	Business Committee
Agenda title	Maintaining the stability of existing CHES
Item	5
Purpose	To provide Business Committee members with an update on the programme of work to ensure existing CHES continues to provide the level of service, reliability and resilience required by the market until CHES replacement is implemented
Meeting date	22 March 2023
Prepared by	Group Executive, Securities & Payments (Tim Hogben) Group Executive, Technology and Data, and CIO (Dan Chesterman) General Manager, Technology, Securities & Payments (Sabra Mott)

Overview

The CHES service continues to operate within key performance indicators, achieving service level objectives for all of CY2022 and CY2023 to date:

- 100% availability
- No major incidents (Severity 1 or Severity 2)
- Successful disaster recovery test completed on 28 May 2022 with next disaster recovery test planned for 8 May 2023
- 100% headroom capacity threshold of 5M trade registrations: CHES peak day volume of 2,037,312 in January 2023, peak day volume was 4.587M in 2022, historical peak day volume 6.593M on March 13, 2020. CHES has been testing to process 10M.

The CS Facilities have established operational risk management frameworks with appropriate systems, policies, procedures and controls to identify, monitor and manage operational risk.

The objectives of the frameworks extend to, but not limited to, targets for system availability, scalable capacity adequate to handle increasing volumes, physical and information policies that address potential vulnerabilities and threats, business continuity arrangements for timely recovery of operations and availability of well-trained and competent personnel.

Internal audits and independent external expert reviews are undertaken of operations, management processes and internal control mechanisms.

Outlook

ASX continues to invest in the ongoing supportability and maintenance requirements of current CHES including:

- Internal and external support requirements
- Obsolescence of the end-to-end infrastructure stack – hardware and software (“aged assets”)
- System capacity and performance scalability if trade volumes continue to increase
- Overall system risk assessment

In accordance with the notices issued by ASIC to ASX Clear and ASX Settlement on 15 December 2022, a “Special Report” on prescribed matters relating to CHES is due to be provided to ASIC by 28 April 2023 (accompanied by a CS Board attestation) and an Audit Report to be prepared by EY is due to be provided to ASIC by 31 May 2023.

ASX's immediate focus, in addition to the "Special Report", will be to:

	Customer Impact (Y/N)	Target Date
Upgrade frontend servers and operating system	Y (UAT)	March – May 2023
Upgrade hardware security module (HSM) devices (i.e. encryption devices)	Y (UAT)	August – October 2023
Migrate all customers VPN access from v3 to v4	Y (internet customers only)	10 out of 35 upgraded

Next steps

Current CHES is performing well and our investment in it will continue while ASX assess the various pathways for its ultimate replacement.

Members will be provided with further information on 22 March as part of a verbal update on the ongoing programme of work to ensure the scalability and useful life of current CHES continues until CHES replacement can be safely implemented.



Committee	Business Committee
Agenda title	Current CHESs priorities
Item	6
Purpose	To provide Business Committee members with an update on priorities for the current CHESs system
Meeting date	22 March 2023
Prepared by	General Manager, Equity Post Trade and Payments, Securities and Payments (Nick Wiley) General Manager, Securities and Payments Operations (Suzy Munro)

Members will be provided with a presentation on 22 March regarding three priority areas for the current CHESs system, including work occurring or discussion regarding:

1. Operational resilience;
2. Regulatory compliance; and
3. Appropriate functionality.



Committee	Business Committee
Agenda title	T+1 Settlement
Item	7
Purpose	To facilitate member discussion on T+1 settlement
Meeting date	22 March 2023
Prepared by	Senior Manager, Issuer Services, Securities and Payments (Karen Webb)

ASX has provided presentations to Business Committee members at the meetings held on 8 December 2021 and 13 April 2022, facilitating a discussion on current market trends for settlement cycles, the proposed move to T+1 settlement in the US and other markets, the pros and cons, and how this may impact or influence future change in the Australian market.

At the 8 December 2021 meeting members requested ASX include T+1 on the Business Committee forward work program for further discussion, and ASX noted it would welcome any member feedback on the topic.

More recently, the topic of the possibility of T+1 settlement and timing of implementation (if any) was raised at the CHES Replacement Technical Committee meeting held on 22 February 2023.

Since the last updates to the Business Committee a number of markets have moved to, or firmed up plans to move to or at least review a move to T+1 settlement. India completed its transition to T+1 settlement in January this year, and the regulatory settings for the move in the US have been confirmed by the Securities and Exchange Commission (SEC) with a 28 May 2024 target transition date. Canada will transition at the same time as the US. In the UK an industry taskforce will examine the case for transition to T+1 with its findings due in December 2023 and a full report and actions due by December 2024. The Association for Financial Markets in Europe (AFME) has just announced the set-up of an industry taskforce to review a move to T+1 settlement with a focus on cost-benefit analysis and how and when the change could happen.

ASX will provide a presentation to members during the meeting to discuss the latest global developments, and the immediate concerns for the Australian market where other markets have transitioned to T+1 settlement.

ASX also proposes to survey members after the meeting on the appetite and considerations for a transition to T+1 settlement in Australia, including timing, ready for further discussion at the 19 July meeting.

Committee	Business Committee
Agenda title	CHES Replacement – Project update including Partnership Program
Item	8a
Purpose	To provide Business Committee members with an project update on CHES Replacement including the Partnership Program
Meeting date	22 March 2023
Prepared by	Group Executive, Securities and Payments (Tim Hogben) Project Director, CHES Replacement (Tim Whiteley) General Manager, Business Design, CHES Replacement (Katie McDermott) Senior Manager, Equity Post Trade, Securities and Payments (Keith Purdie)

KEY SUMMARY POINTS

- Stakeholders were updated on the project’s progress at ASX’s half-year results presentation on 16 February 2023, including the launch of the Partnership Program in recognition of the extension of the project, which will give up to \$70 million to support stakeholder participation in meeting project milestones for the successful progress and completion of the CHES Replacement project
- As part of the process of exploring options for CHES replacement, ASX has published a request for information (RFI) to global providers of clearing and settlement software
- ASX has hosted two CHES Replacement Technical Committee meetings with 38 member organisations
 - Meeting on 22 Feb included discussions on scope, RFI, and a plan for the redesign
 - Meeting on 8 March included discussions for the opportunity to support a staged approach to go-live, a plan for reviewing project scope and an update on the EY independent review
- The next meeting is scheduled for 12 April

Project Status

ASX have developed a roadmap for the first phase, define and plan, (see attachment A) with key activities to be completed over the next 7-10 months to announce the solution design in Q4 2023. The roadmap includes conducting a detailed assessment of multiple solution options including a reassessment of existing assets and vendors.

The CHES Replacement project team is working towards a recommended solution with detailed options considered, risks, market impact, costs and timeline for ASX design and build.

ASX continues to progress the work on the independent report (Accenture) recommendations to ensure all learnings are taken into the redesign work.

Key project risks

Commercial processes may take longer than expected and will also be dependent on vendors’ availability. This could potentially impact the finalisation of the solution design for a Q4 2023 announcement.

CHES Replacement Technical Committee

At the 22 February meeting, the CHES Replacement Technical Committee was updated on project objectives (see attachment B), scope, the plan for the redesign phase of the project and the request for information. Feedback received indicated it was a good start.

At the 8 March meeting, the CHES Replacement Technical Committee was updated on project status, the approach to validating the scope of business requirements, opportunities for a staged implementation (as opposed to a single cutover) and the EY independent review on the 'define and plan' phase of the project.

Please refer to the paper for agenda item 8c, CHES Replacement Technical Committee for further details.

Request for Information

ASX have been exploring potential vendor solutions as part of ASX's strategy to consider all options in the analysis of the CHES replacement solution redesign. ASX also received direct feedback from stakeholders that appropriate consideration be given to using experienced global providers of clearing & settlement software through a potential 'go to market' process.

In response, ASX conducted a market scan which involved reviewing the top 20 exchanges and central security depositories globally, and assessing the technology used in clearing and settlement. Suitable vendors were then contacted and the RFI released to interested parties on 20 February with responses due 13 March. Prospective vendors are requested to provide information on solutions, capabilities, services and partnering models. Responses will be evaluated and suitable solutions will be considered as part of the overall CHES replacement solution design.

Partnership Program

Following the decision to revisit the solution design, ASX recognises the need to work with our stakeholders for longer than first anticipated. The Partnership Program is therefore designed to give up to \$70 million to support stakeholder participation in meeting project milestones for the successful progress and completion of the CHES Replacement project.

The first component focuses on ASX customers by providing rebates to participants for their clearing and settlement costs. Rebates of up to \$15m will be provided and payment will be made in August 2023 and is in addition to the existing revenue sharing scheme.

The second component is a development incentive facility to support stakeholders building to the new platform that will make payments of up to \$55m.

An initial payment of up to \$10m will be made this financial year to third party software providers and share registries who completed functionality development and provided critical input during the testing phases in the customer development environment (CDE) and industry test environment (ITE). Future payments of up to \$45m for those stakeholders developing software and whose expertise is key to progressing the new CHES replacement solution will be tied to upcoming key project milestones.

Participants developing in-house are eligible for the rebates as opposed to the initial upfront incentive payment.

The final size of the development incentive facility will depend on the chosen solution design and re-work.

ASX will communicate further details on the allocation methodology in Q2 2023.

EY Independent Review

ASX have engaged EY to undertake a review of the current (“Define and Plan”) phase of the CHES replacement solution reassessment. The purpose of the review is to assist the ASX Board to determine whether an appropriate and robust process is being performed to select a solution and supplier(s) for the delivery of critical market infrastructure.

The review will utilise EY frameworks to assess against defined criteria and will leverage both EY local and global subject matter resources.

The review objectives are to assess:

1. Achievability of the schedule for the current phase of the project and whether the breadth of activities are adequate
2. Robustness of the assessment and selection process for:
 - evaluation of solution options
 - assessment and selection of any product/solution vendor
 - assessment and selection of a System Integrator (SI)
3. Key deliverables, specifically the quality of key inputs and outputs for the assessment and selection process, and other key deliverables, including the business case
4. Project management and governance processes for successful delivery, considering complexity, capability and maturity, as well as the effectiveness of industry stakeholder engagement
5. Implementation of program specific Accenture actions due in the current phase

Iterative findings and feedback will be shared with ASX throughout the review in the form of fortnightly risks, issues, and observations. A final report will be produced at the end of the review and will be made public.

Additionally, EY will be attending the CHES Replacement Technical Committee meetings as ‘observers’ going forward to:

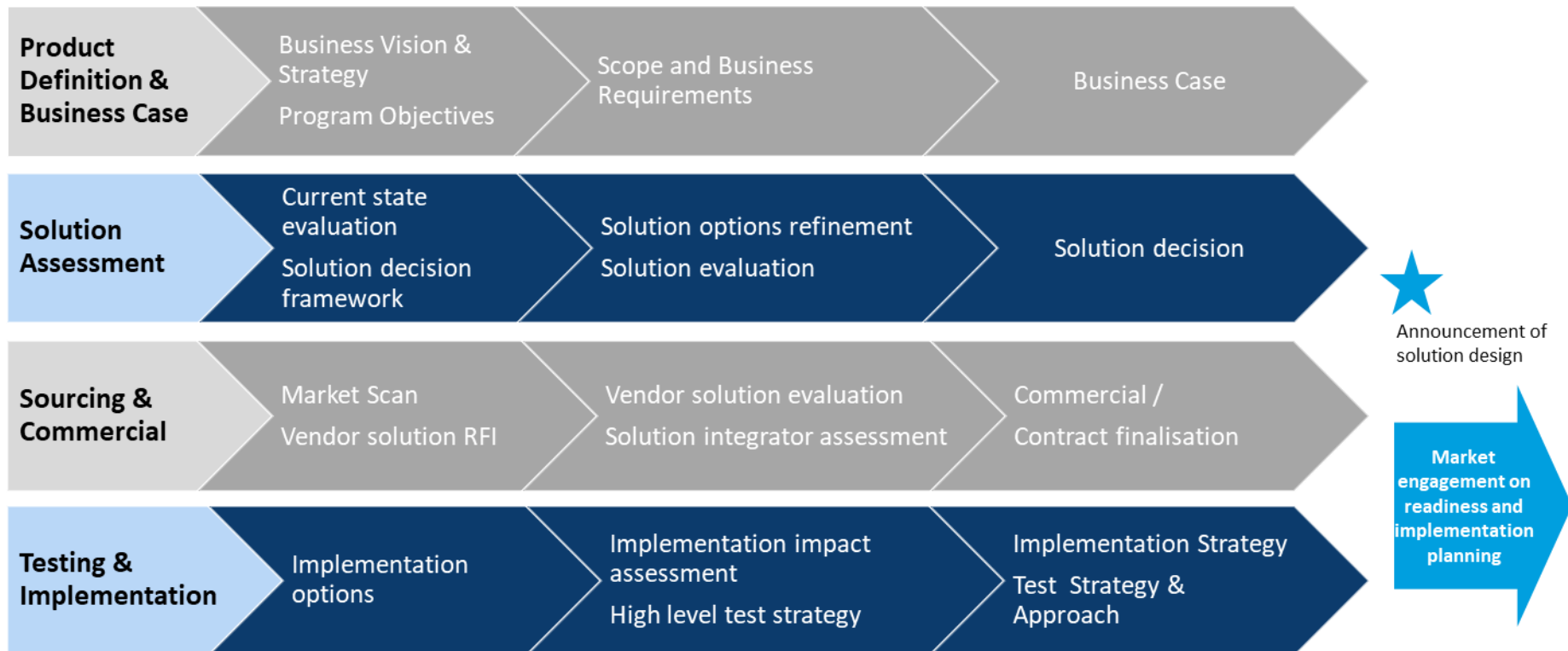
- Review the effectiveness of the strategy, plans and processes ASX have in place for engaging with industry stakeholders
- Observe and assess ongoing information sharing, transparency, consultation, feedback and support from industry stakeholders
- Review and assess the effectiveness of ASX addressing feedback from industry stakeholders

Pulse survey

As part of our efforts for continuous improvement in our engagement with stakeholders, we are committed to increasing the opportunity for CHES Replacement Technology Committee members’ to provide feedback. To help achieve this, ASX conducted a short pulse survey to capture members’ early views on the new industry forum.

ASX will provide a verbal update to Business Committee members at the 22 March meeting.

ATTACHMENT A – REDESIGN PLAN



ATTACHMENT B – PROJECT OBJECTIVES

License	Solution	Plan	Industry Impact	Opportunity
<p>Implement a CHES Replacement system that meets the requirements of our CS facility licences</p>	<p>Deliver a supportable technology solution that is enterprise grade and is capable of underpinning the Australian financial market</p>	<p>Robust plan to implement CHES Replacement prior to existing CHES becoming out of risk appetite</p>	<p>Consideration of the impact of our actions on stakeholders</p>	<p>Create opportunities for industry efficiencies and growth</p>

Committee	Business Committee
Agenda title	CHES Replacement – update from CHES Replacement Technical Committee
Item	8b
Purpose	To provide Business Committee members with an update from the CHES Replacement Technical Committee
Meeting date	22 March 2023
Prepared by	Project Director, CHES Replacement (Tim Whiteley) General Manager, Business Design, CHES Replacement (Katie McDermott) Senior Manager, Equity Post Trade, Securities and Payments (Keith Purdie)

This report provides an overview of the CHES Replacement Technical Committee meetings held on 22 February 2023 and 8 March 2023.

MEETING AGENDA (NON STANDARD ITEMS) – Business and Technical Matters for Consideration

22 February 2023	8 March 2023
<ol style="list-style-type: none"> 1. Committee Charter 2. Project Objectives 3. Project Scope 4. Project ‘Define and Plan’ phase 5. Vendor solutions – RFI update 	<ol style="list-style-type: none"> 1. Member Feedback 2. Project Status 3. Project Scope Approach 4. Opportunities for a staged implementation 5. EY assurance program

ACTION ITEMS

- 6 and 8 action items were raised at the 22 February and 8 March meetings respectfully
- At the conclusion of the 8 March meeting, 4 action items were closed, and 10 action items remained open

KEY ISSUES DISCUSSED

22 February 2023

- The redesign plan was introduced to the committee in the 22 February meeting, providing a high level view of the work streams required to reach a final solution design. The baseline project scope was discussed, detailing current CHES scope, CHES replacement scope for consideration and out of scope features for the CHES replacement.
 - Members were concerned about balancing potential workload between maintaining CHES for a longer timeframes and CHES replacement.
 - Members requested scope to be revisited as requirements may have changed with the passage of time
- Members were supportive of the RFI process and its consideration of international options, however there were questions about managing requirements in parallel with the vendor RFI/RFP process

-
- Several members raised concerns on the appropriate representation from their organisations by limiting one delegate per Business Committee member
 - Greater clarity around the process for dealing with recommendations made by the Technical Committee and the interplay between the Business Committee and ASX Boards

8 March 2023:

- ASX presented a proposed plan for seeking stakeholder input on business requirements and revalidating the scope. Members were asked to provide feedback on topics for further engagement through focus groups. This will allow ASX to present a forward plan of engagement on scope in the April meeting
- ASX presented on a number of opportunities for a staged implementation, as opposed to a single cutover, to start the discussions on achieving an implementation approach that reduces overall risk for the market. ASX is seeking early feedback from stakeholders on the opportunities that may be viable and therefore given further attention versus others that are considered to be a non-starter. ASX is also seeking other ideas on how an implementation can be phased
- Members requested a more detailed view of the redesign plan as part of ASX's reporting on project status
- EY spoke to their independent review on the current define and plan phase to assist the ASX Board in determining whether an appropriate and robust process has been performed to select a preferred solution option. It was noted external engagement was in scope for EY's assurance on the overall CHES replacement project which will happen later this year

Attachment A – Draft minutes from 22 February 2023 meeting

CHES Replacement Technical Committee Minutes

22 February 2023

At its 22 February meeting, the CHES Replacement Technical Committee was updated on:

- Technical Committee charter
- CHES replacement project objectives
- Project scope
- Plan for redesign
- Vendor solutions – RFI update
- Forward work plan

KEY ISSUES DISCUSSED

Key points from the discussion about the CHES Replacement Project included:

- i. Members supportive of the RFI process and its consideration of international options, however there are concerns regarding the feasibility of validating requirements in parallel with the vendor RFI process
- ii. Members supportive of the Technical Committee's charter and objectives, however greater clarity around the process for dealing with recommendations and the interplay between the Business Committee and ASX Boards is required.
- iii. Members concerned about balancing potential workload between maintaining current CHES for a longer timeframe and CHES Replacement, as well as any potential rework from what has already been developed. Members requested scope to be revisited as requirements may have changed with the passage of time
- iv. Several members have raised concerns on the appropriate representation from their organisations by limiting one delegate per Business Committee member
- v. Members also expressed an interest to extend stakeholder engagement alongside focus groups and other forums; and to have more visibility of project details and input on decision making.

AGREED ACTIONS

Six new actions were raised at the meeting:

1. ASX to provide a project governance chart illustrating relationships and decision making
2. ASX to consider the appropriateness of sharing the RFI with members
3. ASX to consider conducting a 'Pre-Mortem' and to proactively identify mitigants
4. ASX to provide a list of requested items from members and ASX's response for visibility
5. ASX to propose a plan for workshops to scope requirements
6. Introduce role of a meeting observer to help identify improvements into establishing the right level of conversation and outcomes

Draft minutes from the meeting are attached.

Agenda

CHES Replacement Technical Committee

Date	22 February 2023	Time	2:00pm-4:00pm
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Location	ASX offices – Level 1, 20 Bridge Street, Sydney/MS Teams
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- 1. Welcome and Introduction**
 - 2. Committee charter**
 - 3. Project objectives**
 - 4. Project scope**
 - 5. Project 'define and plan' phase**
 - 6. Vendor solutions – RFI update**
 - 7. Other matters**
 - a) Forward Work Plan
 - b) AOB
 - c) Next meeting – 8th March 2023
-

Action Items

Item number#	Action	Due date	Status	Owner
2023 Feb (1)	ASX to provide a project governance chart illustrating relationships and decision making	8 March 2023	Open	ASX
2023 Feb (2)	ASX to consider the appropriateness of sharing the RFI with members	8 March 2023	Open	ASX
2023 Feb (3)	ASX to consider conducting a 'Pre-Mortem' and to proactively identify mitigants	8 March 2023	Open	ASX
2023 Feb (4)	ASX to provide a list of requested items from members and ASX's response for visibility	8 March 2023	Open	ASX
2023 Feb (5)	ASX to propose a plan for workshops to scope requirements	12 April 2023	Open	ASX/TC Members
2023 Feb (6)	Introduce the role of a meeting observer to help identify improvements into establishing the right level of conversation and outcomes	8 March 2023	Open	ASX

ASX CHES Replacement Technical Committee Members

Company	Name	Job Title	Apologies
ASX	Tim Whiteley	Technical Committee Chair and Project Director, CHES Replacement Project	
ASX	Val Mathews	Business Committee Chair and Chief Customer and Operating Officer	
Clearing and Settlement Participants			
ABN AMRO CLEARING	Matthew McMahon	Head of Operations	
AUSIEX	Mark Pace	Head of Solution Design	
BANK OF AMERICA	Monika Ahrns	Project Manager	
BELL POTTER SECURITIES	Lee Muco	Chief Operating Officer	
BNP PARIBAS	Mark Wootton	Head of Custody Product Aust & NZ	
CITI	Lyall Herron	Program Manager	
CMC	Danny Ng	Senior Project Manager	
COMMSEC	Ryan Jones	Crew Technical Lead	
CREDIT SUISSE	Andrew Norval	Managing Director, Head of Operations	
FINCLEAR SERVICES	Nikki Gleisner	Senior Business Analyst/Client Relationship Manager	
GOLDMAN SACHS	Simon Wyss	COO, Australia/ New Zealand Engineering	
HSBC	*Asri Asat	Operations Manager	Simon Siluk
J.P. MORGAN	Scott Oakland	Executive Director Product Management	
MACQUARIE GROUP	James Indge	Cash Equities Business Manager	
MORGAN STANLEY	Rebecca Hill	Chief Operating Officer	
MORGANS	Daniel Spokes	Director, Client Support Services	
NAB	Rodd Kingham	Head of Investment Service (WealthHub Securities)	
UBS	Scott Hanlon	Head of Operations, Executive Director	
Third party Software Vendors			
BROADRIDGE	Mabel Chow	Product Manager	
COMPUTERSHARE	Leanne Bailey	Senior Business Analyst	
FINCLEAR	David Bowles	Chief Technology Officer	
FNZ	Nick Clarke	Head of Product Management – Capital Markets	
NRI	Diptesh Chakraborty	Data Engineering Analyst	

SECURITEASE	*Chris Werry	Senior Analyst	David Hinkley
AMOs			
ASX	*Ben Jackson	General Manager, Market Operations	Jamie Crank
CBOE	Mike Aikins	Vice President APAC – Operations and Technology	
NSX	Chan Arambewela	Chief Operating Officer	
SYDNEY STOCK EXCHANGE	Rajnish Tiwari	IT & Operations Manager	
Share Registries			
BOARDROOM	Michael Mullins	Chief Information Officer	
COMPUTERSHARE	Scott Hudson	General Manager – Market Liaison	
LINK MARKET SERVICES	Kelvin Chee	Senior Project Manager – CHES Replacement	
AUTOMIC GORUP	Sue Julian	Head of Business Operations	

* Delegate

Observers

Company	Name	Job Title	Apologies
AFMA	Brett Harper	Chief Executive Officer	
	Damian Jeffree	Senior Director of Policy	
ACSA	David Travers	Chief Executive Officer	Apology
AIRA	Ian Matheson	Chief Executive Officer	
GIA	Megan Motto	Chief Executive Officer	
SIAA	*Michelle Huckel	Policy Manager	Policy Manager
ASIC	Nathan Bourne	Senior Executive Leader, Market Infrastructure	Apology
	Dodie Green	Senior Manager, Market Infrastructure	
	Andia Petropoulos	Senior Analyst, Market Infrastructure	
RBA	Kylie Stewart	Senior Manager, Domestic and Payments, Financial Market Infrastructure	
	Tatiana Moiseeva	Lead Analyst, Financial Market Infrastructure, Domestic and Payments	

* Delegate

ASX Management

Name	Job Title	Apologies
Katie McDermott	General Manager, Business Design, CHES Replacement Project	
Nick Wiley	General Manager, Equity Post Trade and Payments	
Sally Palmer	Deputy General Counsel	
Diane Lewis	General Manager, Regulatory Strategy and Executive Advisor	Apology

Triona Quinlan	Delivery Lead, CHES Replacement Project
Bronwyn Wells	Commercial Lead, CHES Replacement Project
Keith Purdie	Senior Manager, Equity Post Trade, Securities and Payments
Chris Boyes	Senior Product Manager, Securities and Payments

* Delegate

DRAFT

AGENDA ITEM 1: Welcome and Introduction

The Chair welcomed members and delegates to the first CHES Replacement Technical Committee (Technical Committee) meeting.

Sue Julian (Automatic) was noted as a new share registry addition to the Technical Committee.

David Travers (ACSA) was an apology. Simon Siluk (HSBC), was represented by a delegate, Asri Asat. David Hinkley (SecuritEase), was represented by a delegate, Chris Werry. Jamie Crank (ASX Trade), was represented by a delegate, Ben Jackson. Judith Fox (SIAA), was represented by a delegate, Michelle Huckle.

The Chair reminded members of their obligations under competition law and provided an overview of the agenda. The Chair continued by acknowledging the 17 November 2022 announcement that paused current activities on the previous CHES Replacement project, iterating that this forum will provide the opportunity for stakeholder input and feedback on a broad range of matters relating to the project. The Chair also spoke to the current CHES program of work presented in the ASX half year results, noting existing CHES is a standing agenda item of the Business Committee. Where existing CHES matters have a direct impact on considerations for CHES Replacement, the Chair confirmed these discussions will be tabled in this forum.

The Chair explained the goal of the Technical Committee is to build industry confidence on the solution redesign and the implementation of the CHES Replacement project. The Chair encouraged active engagement from members to facilitate the review, debate and input on project planning, design, assumptions and scope. This enables ASX and Technical Committee members to understand the impact on stakeholders regarding the solution and their readiness activities, while ensuring transparency of key project risks, issues, constraints and diverse industry demands.

Member discussion:

An industry association asked whether observers had the right to speak in the meeting. The Chair confirmed that everyone was welcome to voice their opinions and provide input in the forum.

AGENDA ITEM 2: Technical Committee charter

The ASX General Manager, Business Design, CHES Replacement Project provided an update on the Technical Committee draft charter and the input sought to date. This included feedback and opinions following engagement from external legal counsel, King & Wood Mallesons, and earlier input from AFMA and SIAA.

The Technical Committee acts as a subcommittee of the Business Committee. It maintains the same structure as the previous Technical Committee on ISO 20022 to ensure a clear line of reporting to the Business Committee, and the Boards of ASX Clear and ASX Settlement.

Membership of the Technical Committee is intended to be representative of impacted stakeholders while maintaining a manageable size to facilitate robust discussions. It consists of one nominated individual per Business Committee member, and one nominated individual per invited third party software vendor. Observers on the Technical Committee consist of industry associations who are members of the Business Committee (invited to nominate one individual per organisation) and regulatory agencies. Membership will be continually assessed to ensure the right balance of impacted stakeholders.

The ASX General Manager, Business Design, CHES Replacement Project requested any feedback specific to drafting changes of the charter be made via a members' respective Business Committee representative before 22 March, the date of the next Business Committee meeting. Software vendors who do not have Business Committee representation were requested to email through any feedback to the CHES Replacement mailbox.

Member discussion:

A member requested clarification on the decision-making power of the Technical Committee. The Chair advised that the Technical Committee produces inputs and recommendations to the Business Committee for discussion. The Business Committee provides endorsed recommendations to the boards of ASX Clear and ASX Settlement information

will be shared with the Technical Committee. The Chair confirmed a project governance chart will be noted as an action.

A member requested clarification on the practical knowledge required of representatives. The Chair confirmed discussions on topics occurring in the Technical Committee will focus on business capabilities and impacts rather than technologies to ensure CHESS replacement meets market expectations, including future needs, and standards. The ASX General Manager, Business Design, CHESS Replacement Project added that agendas will be confirmed one week prior to Technical Committee meetings, providing members the opportunity to send a delegate with expertise in the confirmed topics should they prefer.

A member enquired whether there were opportunities to request further information or provide recommendations in the periods between Technical Committee meetings. The ASX General Manager, Business Design, CHESS Replacement Project clarified ASX will acknowledge and expect to receive feedback offline, should a Technical Committee member need to liaise internally before providing feedback. However, where possible, members are encouraged to provide feedback during Technical Committee discussions.

A member asked for clarification on the number of working groups to be held to redefine project scope. The ASX Senior Manager, Equity Post Trade, Securities and Payments referred to Agenda item 6, and clarified that various forms of engagements will be employed to ensure the deep-dives on relevant items are tested and discussed with the appropriate stakeholders.

A member requested if the RFI can be shared with the Technical Committee. The Chair confirmed an action will be noted for ASX to review the appropriateness of sharing the RFI outside of experienced global providers of clearing and settlement software.

A member questioned which committee, Business or Technical, will have line of sight on project progress and challenges. The ASX Business Committee Chair confirmed the Technical Committee will have real-time visibility of project progress conveyed in the monthly meetings. The Chair added that project information and status will be reported to the Business Committee by the Technical Committee.

An observer recommended a pre-mortem assessment as a helpful exercise in planning or foreshadowing potential future issues. The Chair confirmed ASX will consider this as an action.

A recommendation was raised for someone independent [of ASX] to act in the role of meeting observer, to provide commentary on how the meeting progressed, whether there was an appropriate level of engagement as well as suggest improvements for future committees. The Chair agreed that this should be actioned in future meetings.

AGENDA ITEM 3: Project objectives

The ASX General Manager, Business Design, CHESS Replacement Project provided the update on revised project objectives:

- Implement a CHESS Replacement system that meets the requirements of our Clearing and Settlement (CS) facility licences
- Deliver a supportable technology solution that is enterprise grade and capable of sustaining the Australian financial market
- Implement a robust plan for CHESS Replacement prior to existing CHESS becoming out of risk appetite
- Consider the impact of ASX actions on stakeholders
- Create opportunities for industry efficiencies and growth
- All previous guiding principles of the CHESS Replacement Project have been incorporated into the new objectives

AGENDA ITEM 4: Project Scope

The ASX General Manager, Business Design, CHES Replacement Project provided an update on current CHES scope and CHES replacement scope.

The ASX General Manager, Business Design, CHES Replacement Project explained the current scope leverages work from the previous replacement project, where extensive consultations with the market were completed. The ASX General Manager, Business Design, CHES Replacement Project continued by acknowledging information from these past consultations may be dated, and in consideration of new project objectives, only acts as a starting point for the new CHES Replacement project. Consequently, stakeholders will have the opportunity to amend the scope for the benefit of issuers, investors, market efficiency and market risk.

Member discussion:

A member raised a question regarding the principle of minimising the amount of work for vendors and participants on current CHES. The ASX General Manager, Business Design, and CHES Replacement Project confirmed the Business Committee will establish the scope of potential changes in current CHES that in turn will then be discussed with the Technical Committee.

A member raised a question around how ASX plan to update the scope of requirements for CHES Replacement, to meet new expectations and legislations. The Chair responded that this forum enables discussions to revisit previous CHES Replacement scope. The Chair reiterated scope is not driven by the solution, rather the solution is driven by the scope.

A member asked what assurance the ASX can provide that it will be able to revisit and action changes to the previous scope without restarting the project in its entirety. The ASX Business Committee Chair acknowledged the challenge in finding balance in building upon what has already been completed, whilst ensuring previous work is updated for the new CHES Replacement program to be relevant and meet expectations of the stakeholders and the market.

The Chair asked how members would like to engage with ASX to build on the baseline scope. A member suggested to reinstate workshops to validate project scope. Another member added, due to the complexity of the various business views within the Technical Committee, it will be beneficial to approach businesses separately ensuring all industry views are gathered prior to the development of a whole industry solution. Another member, while acknowledging the input obtained in one-on-one meetings, recommended multilateral level conversations would be preferable to ensure full visibility of suggestions from all cohorts. The ASX General Manager, Business Design, CHES Replacement Project agreed that it is vital to understand the various viewpoints of cohorts, and how they interact with the post-trading system. The ASX General Manager, Business Design, CHES Replacement Project continued by proposing that through focus groups, an element of consensus within similar cohorts on the scope will be identified, and then reported back to the Technical Committee for all to review. Subsequently, to enable these focus groups, it would be useful for members of the Technical Committee to recommend topics for those specialised discussions.

A member suggested impact statements should accompany proposals for the scope, ensuring all members without a technical background are aware of the stakeholder benefit for each proposal. The Chair agreed with the suggestion, adding that it enables a fair discussion to agree on scope.

A member requested a comparison of previous scope and current scope for visibility of new additions and items moved from the current scope. The ASX General Manager, Business Design, CHES Replacement Project referred to slide 14, reiterating what is shown are items under consideration for current CHES. Slide 15 depicts the scope of the CHES Replacement before the project pause next to the items removed from day one scope after consultations.

AGENDA ITEM 5: Project 'Define and Plan' phase

The ASX Delivery Lead, CHES Replacement Project provided the update on the re-design plan.

The project has been structured into four work streams, with key activities to be completed over the next nine months to reach the solution design. Once solution design is confirmed, ASX will move into the detailed planning of market activities and establish a go-live date. The work streams are:

- Product Definition and Business Case
- Solution Assessment
- Sourcing and Commercial
- Testing and Implementation

The purpose of the Product Definition and Business Case work stream is to define the business strategy, which will in turn define the program objectives discussed in Agenda Item 3, along with the project scope. The output of this work stream is a business case detailing the options considered, the selected option, risks, benefits, market impact, high-level costs and timeline. Once the solution design is confirmed, ASX will move into the detailed planning of market implementation activities and establish a go-live date.

The Solution Assessment work stream is responsible for building out the solution decision framework, evaluation of the current solution and remediation of core issues, reusability of existing features and evaluation of potential vendor products. The solution decision framework is currently being developed and ASX will request Technical Committee member feedback in a future meeting. The key milestone and output of this work stream is the solution design, targeted to be announced in Q4 2023.

The Sourcing and Commercial work stream assesses what vendor solutions are available in the market. An RFI has been sent to potential vendors to assess their capability, as discussed in Agenda Item 6, while recognising there is no 'off the shelf' vendor solution that will meet all the requirements of the Australian market. Vendor responses are expected in mid-March. The output of this work stream will be the identification of a vendor who is available to carry out the assessment of customisation and integration requirements of their solution, and pass ASX's assessment utilising the solution decision framework.

The Testing and Implementation work stream consists of exploring opportunities and minimising risk in the implementation approach, such as a phased approach instead of a single cutover. The recommendations and actions resulting from Accenture's independent report will also be assessed during this phase. The output of the current testing and implementation status will be discussed in future Technical Committee meetings to seek stakeholder feedback.

The Chair noted the risk around the unknowns with a commercial vendor's processes and potential longer lead times than expected and therefore may impact the timeline for a Q4 2023 announcement on a solution design.

Member discussion:

A member questioned the feasibility of revalidating and confirming project scope in parallel to a solution option evaluation. The chair reinforced the primary focus of the solution option evaluation process will be on meeting ASX's license and market obligations. All other project scope will be considered, assessed and prioritised on this basis.

A member raised concerns of the potential for change to ASX's timeline should workshops uncover inconsistencies with the chosen option. The Chair agreed, the ASX may require an extensive RFP. However a decision has not been made and the project scope needs to be baselined as soon as possible.

A member asked about change control and potential changes to scope that are expected later in the year. The Chair noted the scale of the project and that areas of concern will be managed as they arise, and are not limited or reliant on one specific phase to be completed. The Chair also noted project scope can be incremental and agnostic to the solution decision.

A member enquired whether using a vendor and outsourcing is the only option for the CHES Replacement Project, or if there is an option to build in-house. The Chair responded that the solution could be either, or a combination of outsourcing and building in-house.

A member asked whether Digital Asset had been included in the RFI process and questioned whether ASX had any conflict of interest given ASX's investment in the company. The Chair noted that Digital Asset has not been included in the RFI process. The ASX Business Committee Chair also added, it does not prevent us from using parts of what has already been built if it is determined that adjustments can be made to the current design. ASX's focus is the consideration of all factors, including addressing the core issues outlined in the independent report, before a decision is made.

AGENDA ITEM 6: Vendor Solutions – RFI Update

The ASX Commercial Lead, CHES Replacement Project provided an update on the RFI process.

Completed work to date included:

- Market scan to review the top global 20 exchanges and their central security depositories (CSD), and assess the technology used in clearing, settlement and CSD's
- Output of scan noted an approximate 50/50 split between proprietary versus vendor products, and identified a list of suitable vendors to receive the RFI
- The RFI, containing approximately 50 functional and non-functional questions, was released to vendors on 20 February with responses due on 13 March. The principles used to formulate the questions included:
 - How the solution will meet the core requirements of CHES?
 - How the solution will meet features unique to the Australian market?
 - How the solution addresses the 6 core issues outlined in the Accenture report?
 - How the information will help inform the solution design and ASX's understanding of the technology fit?
- The evaluation methodology for vendors and suitable solutions will be considered as part of the overall CHES Replacement solution design

Examples of some of the RFI questions were outlined in the presentation slides.

Member discussion:

A member asked how many vendors were sent the RFI. The Chair confirmed the number of recipients is currently 4. It should be noted that other potential vendors may still be included in the RFI process.

A member questioned if there were any trends amongst the 20 exchanges included in the market scan and how the technology leveraged (proprietary build or vendor based) affected their upgrade activities and whether this influenced whether these activities are conducted internally versus externally. The Chair noted that for many exchanges with a proprietary build, that technology upgrades are most commonly made internally. The Chair also noted vendor solutions appear more suitable to clearing and that ASX does not have any additional trend data on recent technology upgrades amongst the top 20 exchanges.

AGENDA ITEM 7: Other Matters

a) Forward Work Plan

The ASX Senior Manager, Equity Post Trade, Securities and Payments provided an update on the forward work plan and future industry and stakeholder engagement activities.

Engagement activities with stakeholders will consist of the Technical Committee meetings, focus groups, market webinars, project update eDMs, updates to the CHES Replacement website, pulse checks with Technical Committee members, and the CHES Replacement mailbox for further queries. Stakeholders are not expected to form dedicated project teams for CHES Replacement in 2023, the current expectation is for stakeholders to engage through the various channels provided by ASX to ensure that their views are considered as the project progresses.

ASX is not planning to reinstate the series of bilateral meetings as there are no designated CHES delivery teams to be re-established this year. ASX remains open to meeting with stakeholders on a case-by-case basis, however the ASX Senior Manager, Equity Post Trade, Securities and Payments encourage queries and feedback to be raised during the Technical Committee forums, to provide visibility of suggestions and feedback for other members.

ASX supplied a list of topics in focus for future meetings and requested members communicate topics they would like to have discussed in future meetings.

Calendar invitations will be sent for the next meeting on 8 March 2023, as well as for future monthly meetings in 2023 thereafter.

b) AOB

No matters raised.

c) Next meeting – 8 March 2023

The next Technical Committee on 8 March 2023 will discuss the opportunities for a staged implementation in addition to the standing agenda items of project status updates, risks and issues and project scope.

The meeting closed at 4.05pm.

Signed as a correct record of the meeting.

Chair

Date

Committee	Business Committee
Agenda title	Forward work program
Item	9a
Purpose	To update members on the forward work program of the Business Committee for 2023
Meeting date	22 March 2023
Prepared by	Business Committee Chair, Chief Customer and Operating Officer (Val Mathews)

The Business Committee will meet five times in 2023. The meeting dates are:

- 30 January 2023 (special meeting) – 1.30-3.00pm
- 22 March 2023 – 12.00-2.00pm
- 19 July 2023 – 12.00-2.00pm
- 11 October 2023 – 12.00-2.00pm
- 6 December 2023 – 4.00-6.00pm

Subject to input from members on additional items, the forward work program of the Business Committee in 2023 will continue to focus on the operating performance of CHES, maintaining the stability of existing CHES, priorities in the existing CHES system, updates on CHES replacement and updates related to the Regulatory Expectations.

Members of the Business Committee are invited to suggest topics for inclusion in the forward work program at any time by contacting the Business Committee Secretariat by email at BCSecretariat@asx.com.au.

ATTACHMENTS

Attachment A Business Committee Forward work program 2023

Attachment A: Business Committee Forward work program 2023

