

Agenda

Business Committee

Date	22 July 2020	Time	12:00pm – 2:00pm
Location	By Skype teleconference		
1. Service Performance			12:00pm-12:15pm
a) Cash Market Clearing and Settlement - Operating Performance			
2. CHES Replacement Project			12:15pm-1:15pm
a) CHES Replacement			
– Application			
– Infrastructure and ledger			
– Integration and reporting			
– Rules and regulatory engagement			
– Stakeholder engagement			
– Transition, cutover and system accreditation			
b) Industry consultation on revised implementation timeline			
c) ISO 20022 Technical Committee report and minutes			
3. Service Enhancements			1:15pm-1:30pm
a) Update on the Corporate Action STP Phase 2 project			
4. Regulatory Expectations – External Audit			1:30pm-1:40pm
a) Update on the upcoming external audit of ASX's compliance with the regulatory expectations.			
5. Administration			1:40pm-1:55pm
a) Minutes from the 8 April 2020 Business Committee Meeting			
b) Forward work program			
c) Other matters			
6. Next Meeting – 23 September 2020			

Action Items

Item number#	Action	Due date	Status	Owner
2019 Sept (1)	Communicate with issuers on the proposed changes to corporate action forms and processes	Nov 2019	Completed	Karen Webb
2019 Sept (2)	Further information regarding how the market could use the optional DLT capabilities of the system	Nov 2019	Completed	Cliff Richards
2019 Sept (3)	Summary of the types of CHES replacement project risks ASX tracks	Nov 2019	Completed	Hamish Treleaven Cliff Richards
2019 Sept (4)	Implement changes to Business Committee processes (draft agenda and meeting action items)	Nov 2019	Completed	Gary Hobourn
2019 Sept (5)	Invite AMOs to attend the next meeting of the Implementation and Transition Working Group	Nov 2019	Completed	Keith Purdie
2019 Sept (6)	Circulate the annual Regulatory Expectations audit report and Management Accounts for the CS facilities	Nov 2019	Completed	Gary Hobourn
2019 Sept (7)	Organise a meeting with AMOs to discuss the issues raised during the PWC audit	Nov 2019	Completed	Karen Webb
2019 Sept (8)	Respond to industry feedback following release of ASX Clear GN10: Business Continuity & Disaster Recovery	Nov 2019	Completed	Hamish Treleaven
2019 Nov (1)	Provide members with the proposed times for the meeting dates in 2020.	Dec 2019	Completed	Gary Hobourn
2020 Apr (1)	Facilitate, with an industry group member, more effective engagement on benefits of the new system.	Jul 2020		Cliff Richards

Business Committee Members

Company	Name	Job Title	Apologies
ABN AMRO Clearing	Barry Parker	Chief Executive Officer	
AFMA	David Lynch	Chief Executive Officer	
ASX	Peter Hiom	Business Committee Chair, Deputy CEO	
ASX	David Raper	Executive General Manager, Trading Services	
AIRA	Ian Matheson	Chief Executive Officer	
ACSA	Rob Brown	Chief Executive Officer	
ASA	Fiona Balzer	Policy & Advocacy Manager	
Automic	Paul Williams	Managing Director	
BAML	Rhys Cahill	Global Markets COO	
Bell Potter Securities	Rodd Kingham	Head of Operations - Transformation	
BNP Paribas	Mark Wootton	Head of Custody Product Aust & NZ	
Chi-X Australia	Mike Aikins	Chief Operating Officer	
Citi	Miles O'Connor	Director, Direct Custody & Clearing Securities & Funds Services	
CMC	Andrew Rogers	Director of Broking Business	
CBA (CommSec)	Sheridan Thompson	Head of Strategic Development	
Computershare	Scott Hudson	Head of Intermediary Services	
Credit Suisse	Winston Loke	Australia Equities COO	
Deutsche Bank AG	Geoffrey Plaisted	Chief Operating Officer, Equities	
Goldman Sachs	Yen Le	Executive Director	
GIA	Megan Motto	Chief Executive Officer	
HSBC	Nichole Alexander	Manager, Aust Market Advocacy & Development	
J.P. Morgan	Jonathan Evans	Head of Custody & Markets Operations	
Macquarie Group	James Indge	Cash Equities Business Manager	
Morgan Stanley	Rebecca Hill	Chief Operating Officer	
Morgans	Peter Chisholm	Manager, Transactional Services & Settlement Systems	
NAB	Anita Mead	Head of Business Management, Self-Directed Wealth	
NSX	Matthew Loughnan	Chief Executive Officer	
Pershing Securities	Leigh Conder	Chief Operating Officer	
SAFAA	Judith Fox	Chief Executive Officer	
Sydney Stock Exchange	Antony Tolfts	Director - Market Supervision & Listing Compliance	
UBS	Conor Foley	Chief Operating Officer	

ASX Management

Name	Job Title	Apologies
Tim Hogben	Chief Operating Officer	
Daniel Moran	General Counsel	
Hamish Treleaven	Chief Risk Officer	
Cliff Richards	Executive General Manager, Equity Post Trade Services	
Dan Chesterman	Chief Information Officer	
Val Mathews	Executive General Manager, Operations	
Sally Palmer	Deputy General Counsel	
Katie McDermott	General Manager, Equity Post Trade Services	
Diane Lewis	Senior Manager, Regulatory and Public Policy	
Karen Webb	Senior Manager, Equity Post Trade Services	
Keith Purdie	Senior Manager, Equity Post Trade Services	
Con Korkofigas	Senior Legal Counsel & Senior Manager	

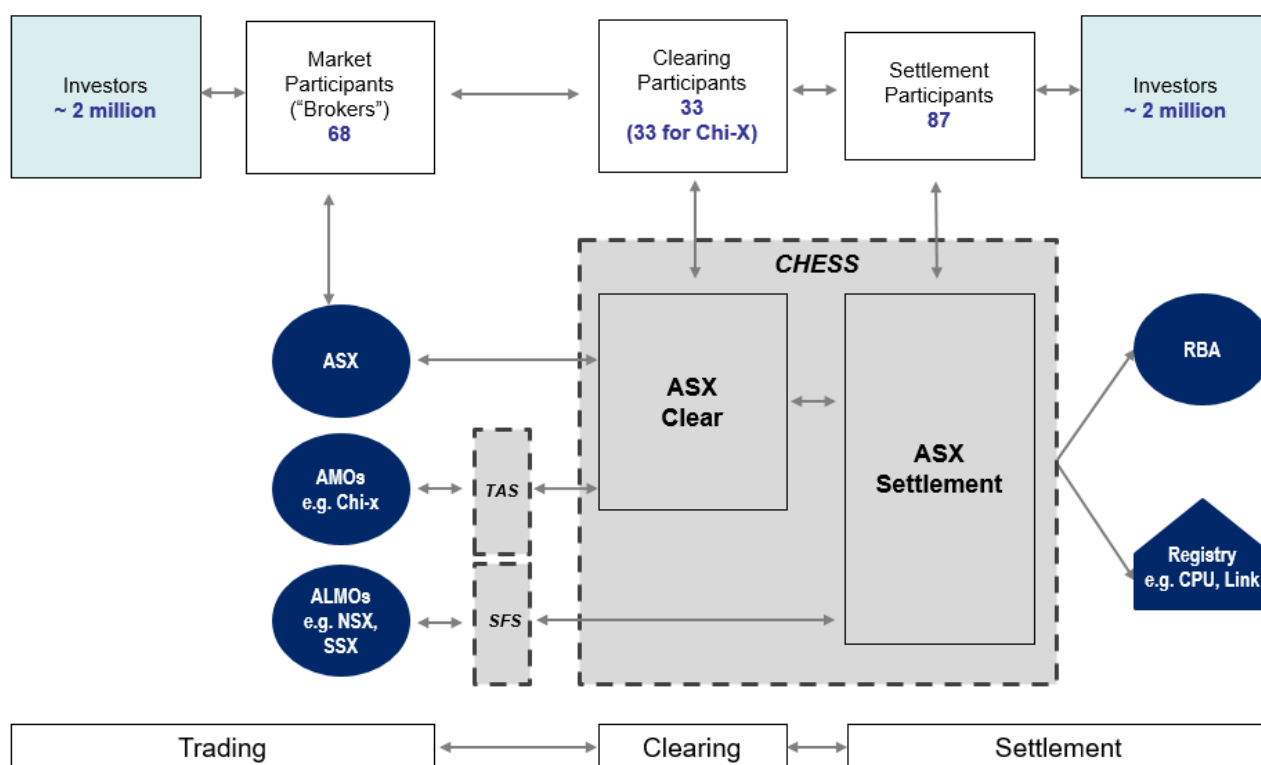
Observers

Name	Job Title	Apologies
Nathan Bourne	Senior Executive Leader, Market Infrastructure (ASIC)	
Dodie Green	Senior Manager, Market Infrastructure, (ASIC)	

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 1	
Topic	Cash market clearing and settlement services - Operational performance
Date	22 July 2020
Purpose of this paper	To report on key performance metrics for ASX's clearing and settlement services.

OVERVIEW

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:

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- 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 and 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 June 2020 quarter, the average monthly system availability was 100% for CHES. The average monthly availability of CHES has been 99.99% between November 2011 and June 2020.

Trade Acceptance Service

ASX Clear and ASX Settlement's Trade Acceptance Service (TAS) provides a mechanism for Chi-X to submit trades into CHES. The CHES system performs the clearing and settlement functions.

The Trade Acceptance Service availability target for TAS is 99.80% (the same as CHES).

For the June 2020 quarter, the average monthly system availability was 100% for the TAS. The average monthly availability of the TAS has been 99.99% between November 2011 and June 2020 (which is 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 June 2020 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 CHESSE settlement batch is the fail performance. For the June 2020 quarter, the daily average fail performance was 0.382%. The daily average fail performance within CHESSE has been 0.306% between November 2011 and June 2020.

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

Month	June	May	April
Average Fail Rate	0.267%	0.213%	0.681%
Maximum Fail Rate	0.741%	0.395%	3.799%
Minimum Fail Rate	0.071%	0.116%	0.055%
# of days Fail rate > 0.50%	3	0	6
Batch Settlement Extensions	1	2	-
Fall back of Payment Provider	1	-	-

Supplementary Information for quarter of June 2020

Overview

Through the June Quarter, there were an increased number of corporate actions processed in CHESSE due to the temporary regulatory relief and updated guidance to support listed companies and investors during the COVID-19 pandemic. The most common corporate actions seen in this quarter were Institutional Placements, Entitlement offers and Security Purchase Plans.

The increased number of Entitlement offers within the period contributed to the reduction in netting efficiency, as a result of the netting being turned off for those "entitled" securities. It is a standard process to turn netting off for certain corporate events to enable more efficient resolution of entitlement claims should failure of settlements occur.

CHESSE Processing Improvement Update

In line with its continual operational risk management program of work ASX upgraded its post trade infrastructure to reduce pressure on critical path operational processes to be in a better position to manage elevated trade volumes. CHESSE queues have significantly reduced, with minimal backlogs for trade registration. The medium term upgrades to improve both the capacity and performance of ASX's post trade processing systems has delivered the following initial benefits:

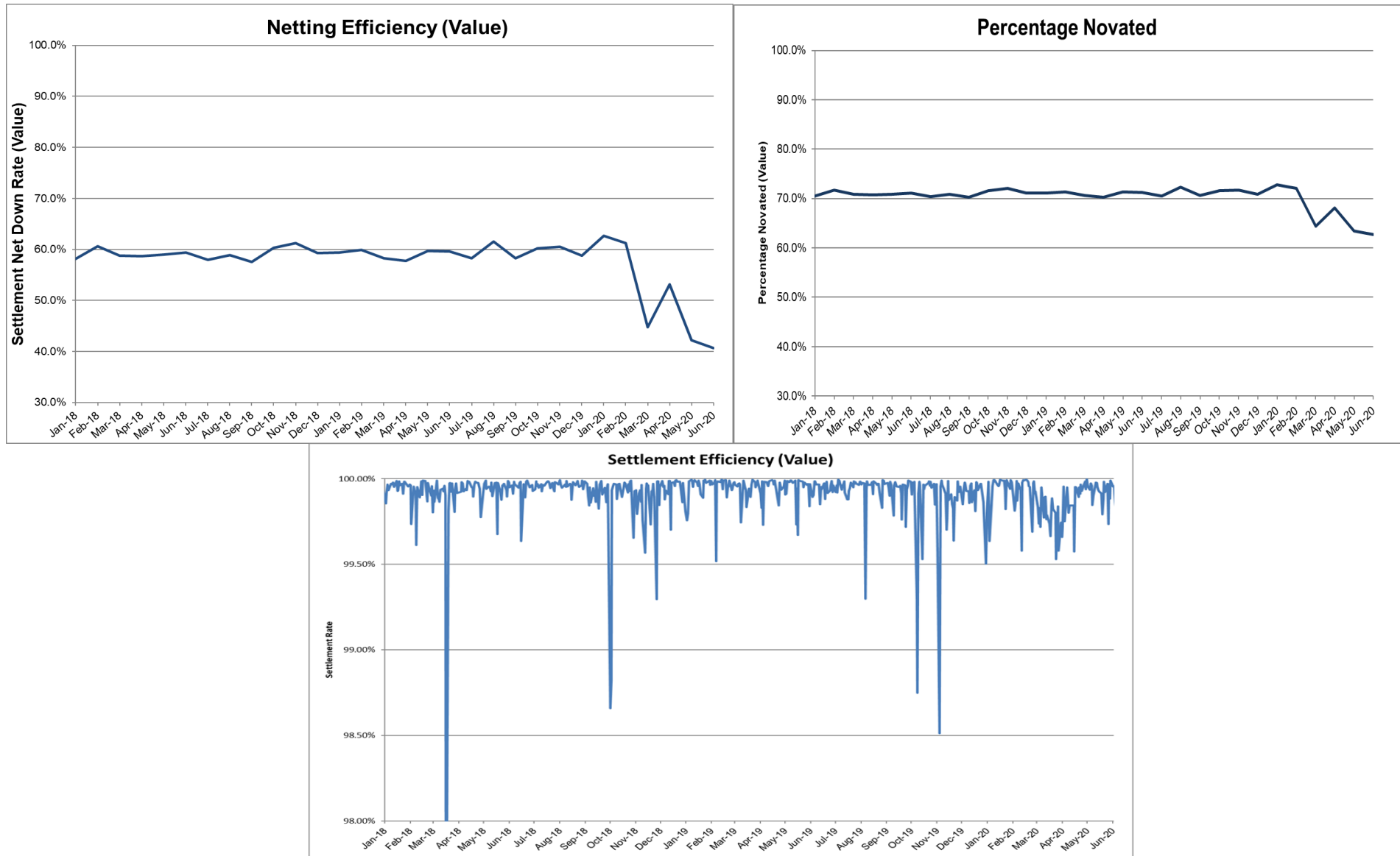
- The average CHESSE EOD overnight average completion time was 1.30am compared to the average completion time in March quarter of 3.30am.
- CHESSE queues have reduced significantly, with backlog of trades in June period clearing prior to 1:00pm each day after CHESSE settlement batch has completed. The trade application processing time during the batch settlement process has been reduced from approximately 60 minutes to 30 minutes.

We are also continuing to undertake further enhancements to improve the capacity of the CHESSE and CORE systems, including upgrading hardware, implementing system processing efficiencies and tuning indexes.

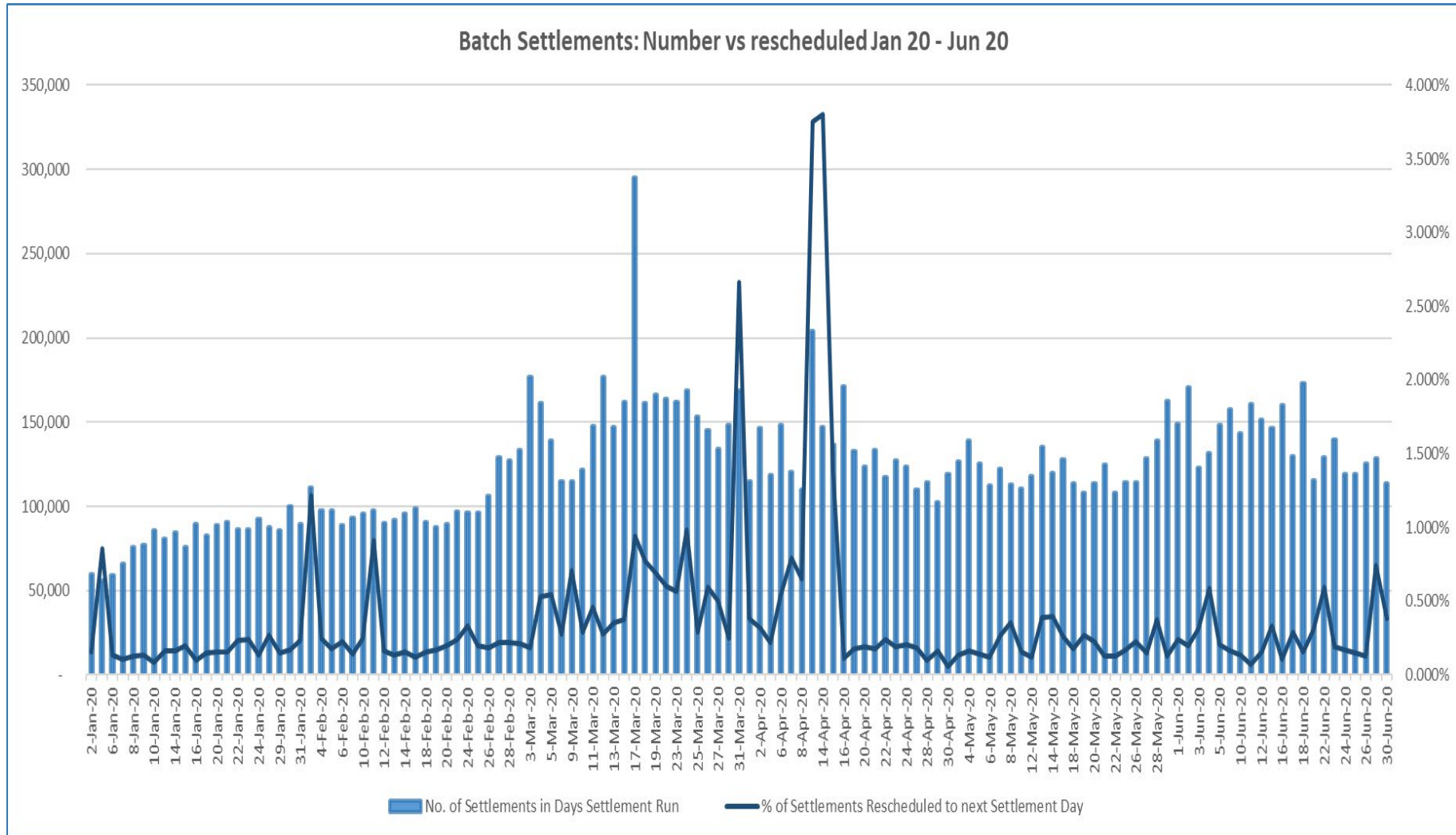
ATTACHMENT A – SUMMARY METRICS RELATING TO THE PERFORMANCE OF ASX’S CLEARING AND SETTLEMENT SERVICES

	June 2020 Quarter	March 2020 Quarter	December 2019 Quarter
System Availability (CHES)	100%	100%	100%
System Availability (TAS)	100%	100%	100%
Total Trades Accepted (ASX)	108,065,942	138,570,453	104,354,557
Total Trades Rejected (ASX)	0	0	2
Total Trades Accepted (Chi-X)	34,068,422	47,887,097	35,200,185
Total Trades Rejected (Chi-X)	0	11,468	0
Total Settlements (SSX)	0	0	0
Total Value of Settlements (SSX)	\$0	\$0	\$0
Total Settlements (NSX)	714	391	244
Total Value of Settlements (NSX)	\$10,691,912	\$6,192,782	\$429,289.04
Daily Average Traded Value (On and Off Market)	\$7.5 billion	\$8.5 billion	\$7.2 billion
Daily Average Cleared Value	\$4.9 billion	\$5.9 billion	\$5.1 billion
Percentage Novated	64.74%	69.77%	71.35%
Daily Average Cleared Value Post-Netting	\$2.44 billion	\$2.63 billion	\$2.06 billion
Netting Efficiency (Value)	45.3%	56.2%	59.8%
Netting Efficiency (Volume)	98.49%	99.01%	99.02%
Daily Average Settled Value (Including Non-Novated)	\$13.4 billion	\$14 billion	\$10.5 billion
Settlement Efficiency (Value)	99.90%	99.88%	99.85%
Average Daily CHES Fail Rate (% Rescheduled to the next settlement date)	0.38%	0.36%	0.33%

ATTACHMENT B – PERFORMANCE OF ASX'S CLEARING AND SETTLEMENT SERVICES FROM JUNE 2011 TO JUNE 2020



ATTACHMENT C – BATCH SETTLEMENTS VS RESCHEDULED JAN-JUNE 2020



BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 2A

Topic	CHES Replacement – Program Update
Date	22 July 2020
Purpose of this paper	Members will be provided with a program update including stakeholder engagement activities.

OVERVIEW

On 30 June, ASX published its consultation paper on a revised implementation timetable with a new go-live date of April 2022, 12 months beyond the original target go-live date. ASX is now seeking feedback from all CHES users on their ability to meet this timeline. Written responses to the 5 questions set out in the consultation paper are due by 28 July. See agenda 2b for further details.

Since ASX announced at end of March that it would consult on a new implementation timetable, several CHES replacement activities have been completed. This includes delivering the seventh (of 10) functional releases into the customer development environment (CDE7) with accompanying release documentation. The customer development environment now has 89% of the core clearing and settlement functionality. The documentation portal has also been updated to include the third instalment of new procedure guidelines as well as new content for message accreditation scripts.

Other stakeholder engagement activities have also continued with the Implementation and Transition working group, Connectivity and Integration working group and bilateral meetings.

Application Design, Build and Test

The seventh drop of code into the customer development environment was released on 29 May. This delivers 89% of core clearing and settlement functionality. To complete the development of clearing and settlement functionality, ASX is planning to release the outstanding features in two further code drops – September 2020 (CDE8) and November 2020 (CDE9). To complete the development for day 1 go-live, the final drop of code in February 2021 (CDE10) will deliver the remaining mFund functions.

Testing continues of CDE7 code across all three connectivity channels – Ledger API, SWIFT and AMQP, with 34 organisations now connected to the customer development environment, including software providers, participants and share registries. This also includes AMO testing with FIX.

Development is also tracking to schedule for the CHES User Interface (UI) that replaces the CHES PC desktop application. The foundation ‘base’ GUI build is finished which includes the ability to submit and query ISO 20022 messages, view accounts, holdings and settlement instructions. Development is continuing to incorporate additional customer functionality such as a ‘four eyes’ approval workflows, user management and audit requirements. A demonstration of the CHES UI to external stakeholders is targeted for end July as part of the Implementation and Transition working group.

The Technical Committee’s ISO 20022 work has now completed having successfully mapped 423 CHES proprietary messages to 106 ISO 20022 messages. This is a significant and outstanding achievement spanning three and half years of industry consultation and collaboration. ASX would like to sincerely thank all those organisations and individuals who contributed to this significant milestone achievement. See agenda item 2C for further details.

Infrastructure and Ledger

The integrated CHES replacement ledger and application has been successfully deployed in several ASX test environments across multiple data centres. These environments allow for ASX’s testing of non-functional and technical requirements including performance, resilience, security and internal systems integration.

Integration and Reporting

All ASX integration and reporting tasks are proceeding to plan. ASX has also now delivered two (out of five) share registry end of day reports with CDE7 at end of May 2020. The remaining message based reporting is scheduled to be delivered to the Customer Development Environment in Drop 9.

Rules and Regulatory Engagement

On 22 May 2020, ASX released its [response to consultation feedback](#) received on the [consultation](#) on the first tranche of operating rule amendments. The response to consultation feedback contains:

- A summary of the feedback received in stakeholder submissions (12 in total)
- ASX's response to such feedback
- The draft rule changes made to the ASX Settlement Operating Rules and Procedures and ASX Clear Operating Rules and Procedures, which take into account feedback received.

The period for providing feedback on the [consultation](#) on the second tranche of operating rule amendments closed on 29 May 2020 (extended from 3 April). ASX is currently considering the feedback received on the tranche 2 rule amendments and is working to provide a response to consultation feedback in mid-September 2020.

As outlined in ASX's consultation paper on a revised implementation timetable, it is proposed that the third tranche of operating rule amendments and a consolidated rules package across all the rule amendments for the new system (as covered by the three tranches) be incorporated into a further public consultation ASX intends to undertake commencing early November 2020. A 15 week consultation period (concluding mid-February 2021) will apply for providing feedback. The further rules consultation will cover:

- Tranche 1 rule amendments (revised as per previous consultation)
- Tranche 2 rule amendments (revised as per previous consultation)
- Tranche 3 rule amendments (new).

The tranche 3 rule amendments will be provided both on a stand-alone basis, as well as part of a consolidated rules package, in the further rules consultation. This is to assist stakeholders who have engaged with the previous rules consultations to be able to focus their review and feedback on the tranche 3 rule amendments, which have not previously been subject to formal consultation.

All stakeholders will also be able to provide feedback on the consolidated rules package across all the rule amendments for the new system.

Feedback has been sought from users on the timing for the further rules consultation set out in ASX's consultation paper on a revised implementation timetable.

A response to consultation feedback received on the further rules consultation is planned for release in June 2021.

Stakeholder Engagement

Implementation and Transition working group

ASX hosted three further Implementation and Transition working groups.

The working group meeting held on 1 April 2020 focused on the announcement to consult with stakeholders on a revised implementation timetable.

The working group meeting held on 27 May 2020 focused on the industry test environment as well as providing an overview on the adjacencies with the Corporate Actions STP project, such as where to source corporate action event information to enable use of new CHES replacement features. ASX also presented how information will be shared on the confluence documentation portal for the new operational and procedures guidelines (commonly referred to as APGs). This included dynamic links to functional specifications and business processes and how subscribers can use the confluence export features. ASX plans to host a live demonstration on how to utilise and navigate the new content at a later date.

The working group meeting held on 13 July provided an overview on the consultation paper and answered working group members questions.

All Implementation and Transition working group materials continue to be made available through the CHES replacement website, including an audio recording of the webinars. This now includes publishing ASX's reply to questions posed during the webinar. The last three presentations materials can be found here:

[Implementation and transition working group presentation materials – 1 April, 27 May, 13 July](#)

Connectivity and Integration Working Group

The most recent Connectivity and Integration working group was held on 13 May 2020. Updates were provided on CDE7, new test tools, a recap on ISO 20022 message signing for AMQP users and steps to test, and an introduction on how Ledger API users would implement token authentication on ITE1.

All Connectivity and Integration working group materials continue to be made available through the CHES replacement website. The presentation materials for the working group held on 13 May can be found here:

[Connectivity & Integration working group presentation material - 13 May Final.pdf](#)

This meeting is likely to be the last with the working group having now completed its stated objectives. However, additional sessions will be convened if required or requested by stakeholders.

Payment Provider Engagement

ASX presented to the Equity Settlement Payment Providers Sub-Committee (ESPPSC) on 16 June 2020 to provide payment providers with an end-to-end solution overview of workflows as they relate to their business, which included payment facility management, projected funds reporting, batch settlement, CHES-RTGS settlement and default management. A recap on connectivity options was also presented.

Issuer Engagement

To continue engagement with issuers on the progress of CHES replacement, ASX published an Issuer Fact Sheet summarising the status of the project. The Issuer Fact Sheet summarises the direct and indirect benefits of the CHES replacement project and provides links to other information relevant to issuers.

[ASX CHES Replacement Fact Sheet for Issuers](#)

Cutover, Transition and Customer Readiness

As part of customer readiness, ASX has now released in four tranches technical accreditation scripts for messaging. The message accreditation scripts identify the required test scenarios, by each relevant CHES user type. Messaging accreditation scripts will continue to be progressively released throughout 2020. Connectivity accreditation scripts and operational readiness test scripts will be provided by the end of this year.

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 2B	
Topic	CHES Replacement – Industry consultation on revised implementation timeline
Date	22 July 2020
Purpose of this paper	Members will be provided with an update on the industry consultation paper regarding the revised implementation timetable

OVERVIEW

On 30 June 2020, ASX released its [consultation paper](#) on the CHES replacement revised implementation timetable. The consultation paper sets out:

- key considerations in constructing the revised implementation timetable
- a revised implementation timetable for key project activities and milestones including system development and testing, user testing, technical accreditation, operational readiness, and operating rule amendments
- the forward release schedule for additional code drops to complete day 1 functional development
- timing considerations for new system features that will be implemented following day 1 go live

ASX is seeking feedback from CHES users on their ability to meet the revised implementation schedule with the following 5 questions and at a minimum, each CHES user is required to answer question 1:

- 1. Can your organisation meet the revised implementation timetable with a go-live date of April 2022?**
YES/NO.
- 2. If you answered NO to question 1, what are the challenges for your organisation in meeting the timeline?**
- 3. If you answered YES to question 1 are there any dependencies that ASX should be aware of, and what would be the impact to your organisation of a delay beyond April 2022?**
- 4. If your organisation chooses to provide feedback on the rule amendments, can your organisation meet the revised timetable for providing feedback on the further rules consultation commencing in early November 2020 as set out in section 5.3?**
YES/NO/Not applicable. If you answered no, please provide information supporting your answer.
- 5. How long after the go-live date would your organisation be ready to commence readiness activities (including technical accreditation and operational readiness) for features included in release 1.1 as set out in section 2.3?**

Specify the number of months. Please provide information supporting your answer.

A copy of the consultation paper and media release can be found here:

[Consultation Paper - CHES Replacement: Revised Implementation Timetable](#)

[Media Release](#)

For ease of reference, a copy of (i) the revised implementation timetable; (ii) key revisions between the original versus revised timetable; and (iii) a summary of stakeholder feedback received on the original implementation timeline, has also been included on the following pages.

Key Revisions

The revised timeline lists and sequences a macro-view of key activities and milestones for CHES users and software providers. Key features of the revised timetable, compared to the original include:

Activity/milestone	Original timetable	Revised timetable
Time between publication of technical specifications and the start of accreditation	3 months	13.5 months
Time between on-boarding of software providers and the on-boarding of their customers in ITE	0 months	4 months
Time between final clearing and settlement code drop and the start of accreditation	1 month	5.5 months
Time from opening of ITE and the start of accreditation	0 months	5.5 months
Time for software providers to complete development of clearing and settlement functionality before deploying code to customers in ITE2	1 month	5 months
Time for user testing in ITE	8 months	11.5 months
Time for user testing before start of operational readiness	2 months	4 months
Overlap of technical accreditation and operational readiness	3 months overlap	No overlap
Overlap of operational readiness and migration dress rehearsals (MDR)	Overlap of MDR 1 and MDR 2	Overlap of MDR 1 only
Time between release of draft consolidated rules package (post consultation on three tranches) and go-live	8 months	9.5 months

Stakeholder feedback received to date on the original implementation timeline

Stakeholder feedback	ASX response
Additional time sought from completed technical specifications to vendor systems UAT and accreditation activities	<ul style="list-style-type: none"> <li data-bbox="645 288 1942 347">> More time has been provided between the publication of complete technical specifications and the commencement of user testing in ITE2 and accreditation activities <li data-bbox="645 371 1942 400">> A delay to the commencement of technical accreditation activities <li data-bbox="645 424 1942 448">> A longer period has also been provided from the start of user testing in ITE2 to go-live
Shared environment challenges for vendors testing their code and then deploying their software to clients for UAT prior to start of IWT	<ul style="list-style-type: none"> <li data-bbox="645 480 1942 571">> Established two distinct environments for industry wide testing with software developers now having exclusive access to the industry test environment (ITE) for a period prior to admitting CHES users, affording more time to vendors to test code (ITE1) prior to the start of user testing (ITE2)
Additional time required to incorporate back office system changes into client-facing systems	<ul style="list-style-type: none"> <li data-bbox="645 632 1942 655">> Vendors now have more time to release software to their end customers prior to the opening of ITE2
The need for more detailed information to assist stakeholder planning	<ul style="list-style-type: none"> <li data-bbox="645 767 1942 823">> Updates to APG (ASX Procedure Guides) documentation have commenced from April 2020, and targeting completion by end 2020, which is more than 12 months prior to go-live <li data-bbox="645 847 1942 879">> All technical specifications have now been published, two years prior to go-live
Concerns regarding key technical aspects of the project and rule changes not being completed until mid-2020	<ul style="list-style-type: none"> <li data-bbox="645 911 1942 967">> ITE1 implements the end state architecture of the CHES replacement solution, including integration to ASX's new identity and access management system <li data-bbox="645 991 1942 1078">> Proposed that the tranche 3 rule amendments be incorporated into a further public consultation ASX intends to undertake across all of the rule amendments for the new system in November 2020, with a 15 week consultation period to be provided (an additional nine weeks) <li data-bbox="645 1102 1942 1134">> All technical documentation now available in relation to proposed rule changes, providing a longer lead time
Challenges in supporting migration dress rehearsals at the same time as undertaking testing, accreditation and operational readiness (same resources used for these activities)	<ul style="list-style-type: none"> <li data-bbox="645 1166 1942 1222">> Eliminated parallel technical and operational readiness activities, and minimised the overlap between migration dress rehearsals and operational readiness activities

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 2C	
Topic	ISO 20022 Technical Committee Report and Minutes
Date	22 July 2020
Purpose of this paper	To provide Business Committee members with a final report and minutes from the final meeting of the ISO 20022 Technical Committee

OVERVIEW

The ISO 20022 Technical Committee has concluded its meetings, with the last meeting held on 7 April 2020. A final report of the committee's activities is provided in Attachment A.

The minutes from the meeting held on 7 April 2020 are available on the CHES Replacement website.

7 April 2020 https://www.asx.com.au/documents/settlement/ISO20022_Technical_Committee_Meeting_7Apr20_Minutes.pdf

ATTACHMENTS

Attachment A – ISO 20022 Technical Committee Report

ISO 20022 Technical Committee Report to the Business Committee

This report provides a final overview of the activities of the ISO 20022 Technical Committee. The ISO 20022 Technical Committee comprising ASX (as Chair) and industry representatives was formed to focus on the adoption of ISO 20022 messaging in place of CHESSEIS proprietary format messaging, and as at June 2020 has completed its key objectives and activities.

32 meetings were held over a period of 7 years, from 24 September 2014 to 7 April 2020, with 31 of those meetings occurring between December 2016 and April 2020. By the final meeting the committee comprised 124 individual members representing 36 organisations (excluding ASX). The agenda, presentation and minutes for all meetings are published on the CHESSEIS replacement [website](#), and have been shared with committee members on a timely basis before and after each meeting. Additional material has been made available to members including a summary of all closed actions and outcomes and MyStandards comments.

At the conclusion of the 7 April meeting, 113 action items had been raised and closed. The closed actions and outcomes register is published [here](#).

ISO 20022 MESSAGES AND ADOPTION OF KEY RECOMMENDATIONS

A significant amount of work has been achieved by ASX and the Committee members during the period. In 2016 we kicked off with the outcomes from a High Level Gap Analysis performed by ASX and SWIFT. This analysis identified 533 CHESSEIS messages across 13 business areas that needed to be mapped to ISO 20022 at the message level. During 2017 a set of draft ‘as-is’ messages were defined. During March 2018 to April 2020 the ‘to-be’ or final message set was described with further refinement of scope and mapping. The results are:

	2016 high level gap analysis	2020 final mapping
CHESSEIS messages in scope	533	423 (of which 139 de-scoped)
CHESSEIS business areas	13	9
ISO business areas	12	12
Mapped to existing ISO base messages	60	95
New ISO messages defined	32 (anticipated)	7 (defined by ASX)
Use of T2S draft ISO messages	28 (proposed)	4
Total ISO messages	120	106



The reduction in the scope of work (in consultation with key stakeholders and the committee) and number of ultimate ISO 20022 messages is a notable outcome. The ASX team also challenged the original high level mapping to find good fits in existing ISO 20022 base messages, thereby reducing the number of new messages required or usage of draft T2S messages.

The high level gap analysis also recommended a number of other actions as part of the adoption. ASX in consultation with the committee has adopted these recommendations.

Recommendation	Adopted	Comment
Adopt ISO 20022 business model concepts	✓	For example - Accounts, Investor Data, Foreign Tax Status, Holding Adjustment, Security Transformation, Change of Controlling Participants and SRN Enquiry
Adopt standard message for common functions	✓	Evident in the smaller message set with a number of defined messages used for multiple (but common) functions
Use ISO standard reference identifiers where possible	✓	If not possible, ASX proprietary code list used
Support multi-currency – currency indicator is mandatory	✓	Noting all currently AUD
Use of Business Application Header (BAH) to identify services	✓	Use of Business Service inside the BAH to identify the process
Comply with Market Infrastructure Harmonisation Principles	✓	- Adopted one version of ISO 20022 messages for project implementation, with expected progress to latest versions post implementation - Publish all specifications in MyStandards
Market training and consultation	✓	- ISO 20022 material published on web page - Offered introductory training - Consultation via ISO 20022 Technical Committee
Simplify reporting model	✓	Consolidated the number of report response messages. 10 reports (15 EIS messages) were consolidated into 4 ISO messages. Specific report requests created depending on business process. For example single EIS message split into 3 different request messages.
ISO adoption roadmap and timeline - Implementation model/strategies - Lead times for change requests, new message registration	✓	Adoption roadmap and timeline considered in CHES Replacement consultation papers; ongoing work of ASX

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 3A	
Topic	Corporate Actions STP Phase 2 project
Date	22 July 2020
Purpose of this paper	To provide Business Committee members with an update on progress of the Corporate Actions STP Phase 2 project.

UPDATE ON PROJECT PROGRESS

The project activities during the last three months have focused on preparation for the second major release scheduled for 18 July 2020. This release delivers the revised and new set of ISO 20022 corporate action notification messages to production. This is a significant milestone for the project, working in collaboration with industry stakeholders and the CHES Replacement project team. Work has also commenced on the third and final release now scheduled for March 2021.

Delivery timeline

As anticipated in the update provided at the last Business Committee meeting, ASX has reviewed the project timeline taking into consideration a number of factors including deliverables for the CHES Replacement project, development activities of existing subscribers to the ISO 20022 service and the remaining scope of work including new scope items.

The implementation date for release 2 was postponed for 3 weeks until 18 July 2020. The implementation date for release 3 has been postponed from September 2020 to a proposed release in March 2021.

The revised high level project delivery timeline is presented in the table below.

Indicative Timeline - Corporate Actions STP Phase 2	2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Corporate Actions STP Phase 2 - Delivery period																
Listing Rule and other rule changes consultation / effective date																
Industry Working Group meetings (as required)																
Customer Testing available																
Target Go-Live (3 major releases)																
Release 1 - 30 November 2019																
Release 1.1 - 22 January 2020																
Release 2 - 18 July 2020																
Release 3 - March 2021																

Scope for release 2 – 18 July 2020

The priorities for this release were based on deliverables to the CHES Replacement project, and ongoing work with the ASX Listings Compliance team on the structure of issuer announcements. The release includes:

- The full suite of ISO 20022 corporate action event notifications¹ to satisfy the CHES Replacement project test schedule and to provide the earliest possible enhancements to benefit subscribers to the ISO 20022 notification service. Noting the release will include the dissemination of warrant security events, previously excluded from ISO 20022 notifications. Testing has been made available on request to industry participants and subscribers since April 2020, including a dedicated SWIFT test environment.
- The introduction of an ISIN to represent the entitlement in a non-renounceable offer. The ISIN and security details are available in the ISO 20022 notification and ReferencePoint Master List. This was a

¹ Refer to Scope for Release 3 for details of additional event brought into scope

new business requirement from the CHES Replacement consultation agreed for delivery by the STP project.

- Enhance the Dividend online form and ISO 20022 notification to include additional tax information (based on ATO Annual Investment Income Report (AIIR) fields), as agreed with the Distributions sub-group of the STP industry working group.
- Further enhancements to the questions, validations and scenario warnings presented to users for the Appendix 3B, Dividend and Interest Payment online forms. A number of these changes were based on feedback from issuers post release 1.

ISO 20022 corporate action notification service

A number of service documents have been updated in readiness for the 18 July release, forming the full set of information available to existing and potential subscribers:

- The new specifications (usage guidelines) have all been published on the SWIFT MyStandards website. 24 usage guidelines +1 guideline for the Business Application Header will be used in practice post 18 July.
- ASX ReferencePoint ISO 20022 Real Time Corporate Actions manual
- ASX ReferencePoint ISO 20022 Real Time SWIFT Readiness Guide
- FAQs

The old production service based on pre 18 July specifications (Phase 1) will continue to be available in production until it is decommissioned on 30 September 2020. Release 2 will introduce the replacement service on 18 July. The ISO 20022 service forward plan is provided in the table below.

	2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Production environment (SWIFT, FTP):										
Cancellation, BAH, Dividend, Interest Payment, Reconstruction, Return of Capital (Phase 1 version)	current production - to be decommissioned by 30/9/20									
All replacement and new messages (Phase 2 version) - available in Release 2 (July 2020) (this is regardless of whether online form is in production or not: some events not supported by online form)							18/7/20-new production			
Additional release March 2021 - Reinvestment offers									Reinvestment Offers	

Scope for release 3 – March 2021

Release 3 is focused on delivering full STP for the announcement through to ISO 20022 dissemination for certain events. As the ISO 20022 messages have already been developed, the bulk of this work is related to introducing additional online forms for use by issuers, and building interfaces between the online forms and ASX database (pre and post announcement release) and associated workflows.

- ASX Listings Compliance and the project team have now determined that the full suite of forms to replace the old Appendix 3B and all possible capital raising and capital change scenarios comprises the following:
 - Appendix 3B – Notification of proposed issue (*online form already in production*)
 - Appendix 2A – Application for quotation
 - Appendix 3G – Notification of issue, conversion or payment up of unquoted equity +securities
 - **NEW:** Appendix 3H - Notification of cessation of +securities
 - Appendix 4A – Statement of CDIs on issue (*online form with full STP already in production*)

Release 3 will deliver all the above forms as online forms with full STP. Corporate action events including bonus, renounceable, non-renounceable, accelerated, and security purchase plans are typically covered by announcements using the Appendix 3B and Appendix 2A. The achievement of full STP will benefit

ASX Operations and support the timeliness of the ISO 20022 and other ReferencePoint corporate action notification services.

- Online forms with full STP will be introduced for two additional corporate action events:
 - Return of Capital (in-specie) - currently word form Appendix 3A.5
 - Buy Backs - currently word forms Appendices 3C to 3F. STP will be introduced for on-market buy backs only
- An additional ISO 20022 corporate action event notification will be introduced for Reinvestment offers. This event is currently managed entirely in CHES, on request. The CHES Replacement and STP project teams have agreed the event should adopt an STP solution - from ASX Operations database capture through to ISO 20022 output. The ISO 20022 notification will be available in the test environment from end December 2020.
- ASX will investigate and introduce changes where possible for ETF and structured product issuers and their events, including announcement and rule changes to standardise the events where possible, and process to manage exceptions.
- Further enhancements will be introduced for issuers including an event tracking dashboard available via the issuer web portal.

Stakeholder engagement

The key changes for online forms included in release 2 have been outlined and notified to issuers in [Listed@ASX Compliance update 06/20](#) published on 17 June 2020.

The industry working group has been kept informed of project developments by email since February and met on 2 July 2020 by webinar. ASX provided an overview of the final scope for the release on 18 July, and a view of the forward plan and scope.

ASX will continue to consult the working group on release 3 deliverables and testing opportunities.

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 4	
Topic	Regulatory Expectations – External Audit
Date	22 July 2020
Purpose of this paper	To advise the Business Committee that the external audit of ASX’s compliance against the Regulatory Expectations is expected to commence soon.

In the *Regulatory Expectations for Conduct in Operating Cash Equity Clearing and Settlement Services in Australia* there is a requirement for ASX to commit to submitting an annual external audit of its governance, pricing and access arrangements against the Regulatory Expectations. The audit is designed to identify if there has been any evidence of non-compliance by ASX with its regulatory expectations obligations.

Three audits have been completed. The fourth audit, covering the 2019-20 financial year, is due to commence shortly and some Business Committee members will be contacted by PwC as part of their review.

The audit methodology this year will be the same as last year. The auditors will select a group of Committee members and approach them directly to discuss their audit questions. ASX is not involved in this process.

This direct approach is intended to enable the auditors to achieve a more representative sample of stakeholders and to better understand the feedback received.

It is expected each discussion would generally involve no more than 15-30 minutes of a member’s time. We would encourage members to contribute to this process.

Members can also indicate to the auditors if they wish to be interviewed as part of the process. Please contact Deanna Chesler, (deanna.chesler@pwc.com) or Lucy Dickens, (lucy.a.dickens@pwc.com).

The Terms of Reference for the annual external audit set out the objectives, scope and approach for the external audit.

The Terms of Reference are provided in Attachment A.

ATTACHMENT

Attachment A – Terms of Reference

Regulatory Expectations External Audit Terms of Reference

Background

In the [‘Regulatory Expectations for Conduct in Operating Cash Equity Clearing and Settlement Services in Australia’](#) (CFR Policy Statement), there is a requirement for ASX to commit to submitting an annual external audit of its governance, pricing and access arrangements against the Regulatory Expectations.

To meet this requirement, ASX will annually commission an external audit conducted by an independent assurance firm. ASX has appointed PwC to perform the audit. As ASX’s external auditors, PwC is, under the requirements of the Corporations Act, independent of the ASX.

The purpose of this document is to highlight the objectives, scope and approach for the external audit.

Objective

The objective of the external audit is to assess ASX’s governance, pricing and access arrangements for the provision of cash equities clearing and settlement services. To meet this objective, ASX’s governance, pricing and access arrangements will be assessed against the requirements of the Regulatory Expectations outlined in the CFR Policy Statement.

Scope

The external audit will assess whether ASX’s policies and procedures are aligned with the Regulatory Expectations (that is, it will assess the effectiveness of the design of the policies and procedures). In addition, it will assess if ASX’s operations have been conducted in accordance with such policies and procedures during the review period (that is, the operating effectiveness of the policies and procedures).

In accordance with the Regulatory Expectations, the external audit will not provide an opinion on subjective matters contained in the Regulatory Expectations, for example, on the promptness and efficiency of investments or the efficiency of prices.

Each of the Regulatory Expectations, against which ASX’s governance, pricing and access arrangements will be assessed under the external audit, are set out in Attachment A.

Approach

The external audit is to be conducted in accordance with the *Australian Standard on Assurance Engagements 3100 – Compliance Engagements* (ASAE 3100) issued by the Australian Auditing and Assurance Standards Board. In accordance with ASAE 3100, the assurance report will provide an opinion on ASX’s compliance with the Regulatory Expectations.

The approach will include, but not be limited to:

- performing a comparison of the compliance framework put in place by ASX against the requirements of the Regulatory Expectations
- testing of policies and procedures on a sample basis to assess whether they were designed appropriately and are operating effectively in accordance with the Regulatory Expectations
- conducting interviews with a sample of the members of the Business Committee to seek feedback in relation with ASX’s compliance with the Regulatory Expectations;
- providing management with a report of findings, and seeking responses where required; and
- tracking the progress of previous audit recommendations and management action.

Timing and reporting

The external audit subject to these Terms of Reference will commence in July 2020 cover the period 1 July 2019 to 30 June 2020.

The external audit will be completed and the external auditor's report will be published within three months following the end of each financial year. The auditor's report will be provided to the relevant ASX Boards, the Agencies and the Business Committee promptly after the report's completion.

ASX will publish the external auditor's report on the ASX website.

Commitment from the ASX

To perform this audit, the auditor will have rights of access to the documents and resources it considers necessary to fulfil its responsibilities, including:

- relevant staff;
- IT systems, documentation and processes; and
- minutes and meeting documentation for the Business Committee, other relevant user governance arrangements and the relevant ASX Boards.

Audit Scope - Regulatory Expectations

<p>1. User input to governance</p> <p>To ensure responsiveness to users' evolving needs, transparent formal mechanisms should be maintained within ASX's governance framework to give users a strong voice in strategy setting, operational arrangements and system design, and to make ASX's monopoly cash equity CS services directly accountable to users. As part of this:</p>	
1(a)	ASX should make an explicit public commitment to investing promptly and efficiently in the design, operation and development of the core CS infrastructure for the Australian cash equity market, including the Clearing House Electronic Sub-register System (CHES) and any future replacement system. This commitment should be supported by governance processes that enable users to provide input on the setting of the investment strategy. Investments should ensure that, to the extent reasonably practicable, the performance, resilience, security and functionality of the core CS infrastructure meet the needs of users, recognising the diversity and differing needs of users. At a minimum, the core CS infrastructure should accommodate internationally accepted communication procedures and standards.
1(b)	ASX should ensure that the membership of its user governance arrangements is representative of the user base of its CS services, and that members are able to have a strong input into the agenda and format of meetings or other user governance mechanisms and the setting of priorities.
1(c)	ASX should demonstrate that it has had regard to the views of members in setting the terms of reference for the external audits of its governance, pricing and access arrangements carried out in accordance with the Regulatory Expectations. This may take the form of members' non-objection of the proposed terms of reference. These terms of reference may change following any review of the Regulatory Expectations.
1(d)	ASX should maintain accountability arrangements that provide for regular public attestations as to the effectiveness of its interactions with users. For example, the following arrangements would be appropriate: <ul style="list-style-type: none"> i. ASX's user governance mechanisms operate on a 'comply or explain' basis; that is, the relevant Board would take actions in accordance with recommendations from the user governance mechanisms, or else explain why such actions had not been taken. ii. ASX report, on at least an annual basis, the service developments and investment projects that it has progressed and how it has taken into consideration the views of users.
1(e)	ASX should formally commit to retaining a Board structure for ASX Clear and ASX Settlement that comprises a minimum of 50 per cent of non-executive directors that are also independent of ASX Limited, and where a subset of these independent directors can form a quorum.
1(f)	ASX should establish governance structures and reporting lines at the management and operational levels that promote access to its CS services on commercial, transparent and non-discriminatory terms. These arrangements should ensure that the interests of users are upheld in accordance with Regulatory Expectation 3. This may be demonstrated, for example, through the key performance indicators set for relevant management.
<p>2. Transparent, non-discriminatory and fair and reasonable pricing of CS services</p> <p>ASX should publicly commit to an appropriate minimum level of transparency of pricing across its range of monopoly cash equity CS services (including the provision of data). The pricing of these services should</p>	

<p>not discriminate in favour of ASX-affiliated entities (except to the extent that the efficient cost of providing the same service to another party was higher). Other than where pricing is anti-competitive or gives rise to financial stability or market functioning issues, the fees charged by ASX are a commercial matter for ASX and its customers. Nevertheless, to ensure that the fees charged by ASX for its cash equity CS services are transparent, non-discriminatory, and fair and reasonable:</p>	
2(a)	<p>ASX should ensure that all prices of individually unbundled CS services, including rebates, revenue-sharing arrangements and discounts applicable to the use of these services:</p> <ul style="list-style-type: none"> i. are transparent to all users of the services ii. do not discriminate in favour of ASX-affiliated entities, except to the extent that the efficient cost of providing the same service to another party was higher iii. are made available to stakeholders in a form such that the impact of pricing changes can be readily understood.
2(b)	<p>ASX should maintain an appropriate method for determining the prices of its CS services so as to generate expected revenue that reflects the efficient costs of providing those services, including a return on investment commensurate with the commercial risks involved.</p>
2(c)	<p>ASX should make an explicit public commitment that any changes in the prices of its CS services will not be implemented in a way that would materially shift revenue streams between aspects of its trading, clearing and settlement services.</p>
2(d)	<p>ASX should publish any increases in its CS fee schedules along with an attestation justifying their reasonableness. For the most material such increases, this attestation would be expected to refer to relevant metrics and other evidence, such as the calculated return on equity, benchmarked price lists, or an independent review of how ASX's cash equity CS fees compare with those of CS facilities in other markets.</p>
2(e)	<p>ASX should maintain an appropriate model for the internal allocation of costs, including the cost of allocated capital, as well as policies to govern the transfer of prices between the relevant ASX Group entities. Compliance with the model and policies would be expected to be subject to internal audit review. The model and policies should be based on reasonable cost allocation principles. For example:</p> <ul style="list-style-type: none"> i. where possible, costs should be directly allocated to the service(s) which give rise to those costs ii. shared costs should be allocated based on appropriate and transparent metrics.
2(f)	<p>ASX should negotiate commercially and in good faith with unaffiliated market operators and CS facilities regarding fees and other financial contributions charged for any extensions to its monopoly CS services, and in particular those provided under the existing Trade Acceptance Service and the Settlement Facilitation Service.</p>
<p>3. Commercial, transparent and non-discriminatory access to CS services – service levels, information handling and confidentiality</p> <p>ASX should facilitate access to its cash equity CS services (including data) on commercial, transparent and non-discriminatory terms. Non-discriminatory terms in this context are terms that do not discriminate in favour of ASX-affiliated entities (except to the extent that the cost of providing the same service to another party is higher). As part of this:</p>	
3(a)	<p>ASX should have objectives for its CS services that include an explicit public overarching commitment to supporting access to its CS services on commercial, transparent and non-discriminatory terms. ASX should maintain standard user terms and conditions that are</p>

	consistent with these objectives, taking into account the legitimate business interests of ASX and any parties seeking access to its CS services.
3(b)	Service level agreements should commit ASX to providing access to its CS services for unaffiliated market operators and CS facilities on operational and commercial terms and service levels that are materially equivalent to those that apply to ASX as a market operator or CS facility.
3(c)	ASX should publish and adhere to protocols for dealing fairly and in a timely manner with requests for access. These protocols should include reasonable timeframes for responding to enquiries and arrangements for dealing with disputes. Nothing in the protocols should affect either party's right to refer a dispute to arbitration by the ACCC once the arbitration regime is implemented.
3(d)	ASX should make an explicit commitment to ensuring that any investments in the systems and technology that support its cash equity CS services do not raise barriers to access from unaffiliated market operators or CS facilities. Announcements of any material investments in the systems and technology that support ASX's cash equity CS services should be accompanied by a public attestation that those investments will be designed in a way that does not raise such barriers.
3(e)	ASX should retain, and periodically review, its standards for the handling of sensitive or confidential information. Consistent with governance arrangements that promote access on commercial, transparent and non-discriminatory terms (see Regulatory Expectation 1(e)), these arrangements should ensure that conflict sensitive information pertaining to the strategic plans of unaffiliated market operators or CS facilities is handled sensitively and confidentially, and cannot be used to advance the interests of ASX as a market operator or CS facility.

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 5A	
Topic	Minutes from 8 April 2020 Business Committee Meeting
Date	22 July 2020
Purpose of this paper	To provide Business Committee members with the minutes and Business Committee report to the ASX Boards from the 8 April 2020 meeting.

OVERVIEW

Draft minutes and the draft report to the Boards of ASX Clear and ASX Settlement from the 8 April 2020 Business Committee meeting were emailed to all members of the Business Committee on 8 May 2020 for comment. The Secretariat received no comments from members.

The Business Committee report and minutes will be formally presented to the next meeting of the ASX Clear and ASX Settlement Boards.

ATTACHMENTS

Attachment A – Business Committee Report and Minutes from the 8 April 2020 Meeting.

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

Business Committee Meeting

At its 8 April 2020 meeting, the Business Committee was updated on the:

- operating performance of CHES for the March Quarter 2020 including the impacts of the recent extreme market volumes and volatility;
- CHES replacement, Corporate Action STP Phase 2, and CHES e-statement projects; and
- ISO 20022 Technical Committee's progress in developing the new message standards.

KEY ISSUES DISCUSSED

The impact of the record trading activity experienced during March was discussed. It was noted that while system availability of 100 per cent was maintained during the peak periods, customers experienced some delays with the receipt of information from ASX which had a negative impact on their operations. ASX noted the short, medium and longer-term approaches it is taking to enhance its infrastructure to manage system performance issues and committed to engaging with stakeholders as these initiatives progress.

Members were briefed on recent progress with the CHES replacement project, particularly the releases of software code into the customer development environment (CDE) and technical documentation; the state of play with rule amendment processes; and stakeholder engagement.

There was also significant discussion about the upcoming consultation on a revised implementation plan for CHES replacement. There were a range of views expressed about whether stakeholders would be in position to respond to a June consultation given the current market and work environment. A few members thought this may be too ambitious while others were keen for the new timeline to be settled as soon as possible to provide certainty for resourcing and planning processes.

ASX will monitor the state of the industry and its capacity to contribute to the consultation on the new implementation timeline when considering whether to proceed with, or delay, the proposed June start date.

Agreed Actions

The single action item raised at the last meeting was completed.

ASX committed to the following action at the April meeting:

1. Working with one of the industry association members to facilitate more effective engagement on the benefits that can be delivered to its constituents when the new system is implemented.

Minutes from the meeting are attached.

Agenda

Business Committee

Date	8 April 2020	Time	12:00pm – 2:00pm
Location	Teleconference		
1. Service Performance			12:00pm-12:45pm
<p>a) Cash Market Clearing and Settlement - Operating Performance This standing item has been extended to allow for discussion of the operational impacts of recent market volatility and changed working arrangements.</p>			
2. CHES Replacement Project			12:45pm-1:45pm
<p>a) CHES Replacement</p> <ul style="list-style-type: none"> – Application – Infrastructure and ledger – Integration and reporting – Rules and regulatory engagement – Stakeholder engagement – Transition, cutover and system accreditation <p>b) Industry consultation on revised implementation timeline</p> <p>c) ISO 20022 Technical Committee report and minutes</p>			
3. Service Enhancements			1:45pm-1:55pm
<p>a) Update on the Corporate Action STP Phase 2 project</p> <p>b) Digitisation of CHES statements (verbal update)</p>			
4. Administration			1:55pm-2:00pm
<p>a) Minutes from the 27 November 2019 Business Committee Meeting</p> <p>b) Forward work program</p> <p>c) Other matters</p>			
5. Next Meeting – 1 July 2020			

Business Committee Members

Company	Name	Job Title	Apologies
ABN AMRO Clearing	Barry Parker	Chief Executive Officer	
AFMA	David Lynch	Chief Executive Officer	
ASX	Peter Hiom	BC Chair, Deputy CEO	
AIRA	Ian Matheson	Chief Executive Officer	
ACSA	Rob Brown	Chief Executive Officer	
ASA	Fiona Balzer	Policy & Advocacy Manager	
Automic	Astrid Raetze	Executive Director	
BAML	Rhys Cahill	Global Markets COO	
Bell Potter Securities	Rodd Kingham	Head of Operations - Transformation	
BNP Paribas	Mark Wootton	Head of Custody Product Aust & NZ	
Chi-X Australia	Mike Aikins	Chief Operating Officer	
Citi	Miles O'Connor	Director, Direct Custody & Clearing Securities & Funds Services	
CMC	Andrew Rogers	Director of Broking Business	
CBA (CommSec)	Sheridan Thompson	Head of Strategic Development	
Computershare	Scott Hudson	Head of Intermediary Services	
Credit Suisse	Winston Loke	Australia Equities COO	
Deutsche Bank AG	Geoffrey Plaisted	Chief Operating Officer, Equities	
Goldman Sachs	Yen Le	Executive Director	
GIA	Megan Motto	Chief Executive Officer	
HSBC	Nichole Alexander	Manager, Aust Market Advocacy & Development	
J.P. Morgan	Jonathan Evans	Head of Custody & Markets Operations	
Macquarie Group	James Indge	Cash Equities Business Manager	
Morgan Stanley	Rebecca Collins*	Head of Operations, Institutional Equities	Rebecca Hill
Morgans	Peter Chisholm	Manager, Transactional Services & Settlement Systems	
NAB	Anita Mead	Head of Business Management, Self-Directed Wealth	
NSX	John Williams*	Head of Admissions	Matthew Loughnan
Pershing Securities	Leigh Conder	Chief Operating Officer	
SAFAA	Judith Fox	Chief Executive Officer	
Sydney Stock Exchange	Antony Tolfts	Listings Director	
UBS	Conor Foley	Chief Operating Officer	

* Delegate

ASX Management

Name	Job Title	Apologies
Tim Hogben	Chief Operating Officer	
Daniel Moran	General Counsel	
Hamish Treleaven	Chief Risk Officer	
Cliff Richards	Executive General Manager, Equity Post Trade Services	
Dan Chesterman	Chief Information Officer	
Val Mathews	Executive General Manager, Operations	
Sally Palmer	Deputy General Counsel	
Katie McDermott	General Manager, Equity Post Trade Services	
Diane Lewis	Senior Manager, Regulatory and Public Policy	
Karen Webb	Senior Manager, Equity Post Trade Services	
Keith Purdie	Senior Manager, Equity Post Trade Services	
Andrew Jones	General Manager, Strategic Partnerships	
Con Korkofigas	Senior Legal Counsel & Senior Manager	
Gary Hobourn	Senior Economic Analyst, Regulatory and Public Policy	

Observers

Name	Job Title	Apologies
Nathan Bourne	Senior Executive Leader, Market Infrastructure (ASIC)	
Dodie Green	Senior Manager, Market Infrastructure, (ASIC)	

Invited

Name	Job Title	Apologies
David Raper	Executive General Manager, Trading Services (ASX)	

INTRODUCTION

The Chair welcomed members and delegates to the first meeting of the year and the first to be conducted solely via teleconference.

There was one apology from Leigh Conder (Pershing). Two other members were represented by delegates, Rebecca Collins (Morgan Stanley) and John Williams (NSX). ASIC (Nathan Bourne, Dodie Green) attended the meeting as observers. David Raper (ASX Trading Services) was invited to attend as a market operator.

The Chair noted that Scott Hudson has replaced Greg Dooley as the Computershare representative.

There was one action item arising from the November meeting that had been completed - members were provided with the proposed times for the remaining meetings of the year.

AGENDA ITEM 1: SERVICE PERFORMANCE

The normal discussion of operating performance of CHES was supplemented by a more detailed discussion on the impact of the recent market volatility and enhanced volumes as well as the challenges presented by new working arrangements as a result of the COVID-19 crisis.

- There was a 32 per cent increase in trade volumes during the March quarter with record trading activity on a number of successive days in March contributing to the higher quarterly averages.
- Daily average volumes increased to 4.1 million trades compared to 2.2 million trades in the year to February 2020.
- A record 7.1 million trades were registered on 13 March up from 5.4 million trades on the record from the previous day. This trading was netted down to 295,000 settlements, which compares to the normal average daily settlements of around 95,000. The associated batch process was only marginally longer than usual even with the record number of settlements. Around \$20 billion was settled on 17 March compared to a more normal settlement day of \$11 billion.
- The majority of the other performance metrics for the quarter were broadly consistent with earlier periods, including settlement efficiency (99.88%) and netting efficiency (99.01%). The percentage of novated transactions (69.8%) was actually slightly below the normal percentage of around 71%, driven largely by higher off-market volumes.
- There was an increase in the settlement failure rate for the quarter (0.392%) reflecting the significant spike in trades and settlement volume (average batch settlement size was up round 30%) as well as some specific issues including one key entity reducing their securities lending which created some challenges for participants.

Even with the extreme trading conditions during the period, the CHES and TAS systems remained operating and available for 100% for the quarter. However, there were several delays through the period, including seven extensions to the commencement of CHES batch settlement due to requests for delays to allow customers to complete settlement preparation. There were a couple of fall-back requests from payment providers and there were around three or four extensions to the CHES end of day processing.

Late February saw the first instances of delays to CHES MT164 trade acceptance messages due to increased trading volumes, prompting extensions to the end of day processing to try to catch up with the queuing of the messages. To better understand the significant impacts these settlement delays had on customers, ASX spoke to a number of participants and continued to introduce remediation measures.

ASX has always maintained at least a 100% capacity headroom over historical trade volume highs for CHES (and other core systems) but on the peak day activity was 218% higher.

In response to the first signs of the decline in system performance in late February, ASX introduced improvements and enhancements to the CHES infrastructure.

On 13 March, ASX undertook urgent maintenance on the CHES database (optimising data logging, purging historical data, and resequencing some of activities) which was implemented prior to running the end of day processes to deliver enhanced performance. This reduced the pressure on the critical parts of the system and ASX's operational processes. No further delays have been experienced since this time and the CHES queues have significantly improved and the backlog is now cleared by about 4:30pm each day.

ASX appreciates the negative impact any delays to CHES processing can have on participant's operations. ASX has very granular monitoring of system performance and aims to communicate any issues as they arise in a timely manner to the market to enable participants to plan their resources and time.

ASX plans further short-term improvements and upgrades to the infrastructure which are currently being tested and will be implemented in the coming weeks and months. System notifications and market notices will continue to be used to provide appropriate visibility into these enhancements.

In the medium to long-term, ASX will continue to assess systems capacity (software and hardware) and fine tune the current CHES platform (where necessary) to manage elevated trading volumes. The recent experience will also inform decisions around the capacity of ASX's new post-trade system as well as participant's decisions on their own systems capacity.

Contemporising ASX's post-trade system, using up to date technology and data management processes, underpins the CHES replacement strategy. CHES was initially built in 1992 when trading volumes were of the order of 20,000 a day, compared to the peak 7.1 million trades registered on CHES. In recent years the growth in trades per day has greatly exceeded the growth in value traded, reflecting new trading technologies and strategies. ASX indicated it will continue to invest in systems and review processes to meet the needs of the market.

ASX will continue to engage with all of stakeholders around this topic and will keep them abreast of progress in enhancing systems in the lead-up to CHES replacement.

There were no questions from members on the performance report.

AGENDA ITEM 2: CHES REPLACEMENT PROJECT

a) CHES Replacement

ASX updated the Committee on the status of each of the CHES replacement workstreams.

Application design and build

- There have been several code drops into the customer development environment (CDE) since the last Business Committee meeting including: CDE 5 (mid-December 2019) and CDE 6 (early March 2020). CDE 6 was the largest code release to date and it included a number of new features.
- Three new updates of technical documentation were also released in the period.
 - End January - including API contracts or DAML contracts on accounts, batch settlement, and corporate actions.
 - February – including functionality for mFunds (applications and redemptions), as well as some investor dataprocesses.
 - 2 April 2020 – this release completed the publication of all functional and messaging specifications, subject to the incorporation of any feedback received at the 7 April ISO 20022 Technical Committee meeting.
- The market now has all the technical specifications to complete their development to the new system. ASX will continue to update the technical documentation in tranches to provide the market with the operational procedures and forms.
- An update to the forward release plan was released and discussed at a recent implementation and transition working group webinar.
- Some functionality initially earmarked to be in scope for CDE 7 has been deferred to a later date (to be advised).
 - The functionality includes investor data and pass-through information and changes for migration purposes for account management, code change class merger diary adjustments, DRP, entitlement offers in relation to corporate actions, mFunds, the isolate counterparty functionality, margin settlement, excess cash instruction, and demand and end of day reporting.
 - While this functionality will not be available in the CDE 7 code drop at the end of May, the functional specifications have all been released to the market so firms' software development can commence, although testing cannot occur until the software is made available in the CDE.

A Member asked if ASX could give any guidance on the prospective timing of functions deferred from the CDE 7 code drop given it contains a couple of key functions of interest to issuers. It was noted that the information on the date would be made available as soon as possible, but no later than the upcoming consultation on the implementation timeline. It was also confirmed, in response to some rumours to the contrary, that none of these deferred features are being de-scoped from the new system.

Infrastructure and ledger

- The DLT infrastructure and ledger is now up and running on ASX's infrastructure and the industry testing environment (ITE) is still due to open from July 2020.

Integration and Reporting

- The work to deliver the revised integration scope for CDE 7 is underway. Key deliverables include the customer identity access management and Corporate Action STP Phase 2 functionality.
- Work on refactoring the CDE test tools to work in the ITE environment is underway. This will assist software developers test activity and enable those that are ready for testing to do so in the timeframe that they want to.

Transition, cutover and system accreditation

- The first round of technical accreditation scripts for messaging (identifying the required test scenarios by the different CHES user types) have been released. The first release relates to account management related functions. Additional scripts will be published in tranches as soon as they are available.
- ITE order forms were also published last week and some forms have already been received from vendors.

Rules and regulatory engagement

- Tranche one rule amendments - the consultation period closed on 17 January. Twelve submissions were received from a range of stakeholders including participants, registries, industry bodies, and vendors. ASX is working to provide a response to that feedback later in April and is engaging with regulators as part of that process.
- Tranche two rule amendments - the consultation paper was released on 21 February with comments initially due in early April but this period has now been extended to 29 May.
- Tranche 3 rule amendments – consultation was due to commence in early April but has been suspended until after the June consultation on the new CHES replacement implementation timeline.
- The process of further consultation on the rule amendments (eg. a consultation on a consolidated draft of rule changes across the three tranches) will form part of the June consultation.
- The rule amendments related to transfers to the CHES sub-register came into effect on 18 December 2019.

Stakeholder engagement

ASX updated the Committee on stakeholder engagement activities since the last Business Committee meeting.

- The Connectivity and Integration Working Group. The group has met regularly since October 2018 and has largely completed its work. Meetings are now only scheduled around new code drops. The most recent meeting was in February just prior to the CDE6 release and over 100 external attendees were updated on the new functionality and the CHES user interfaces. ASX also advised that SWIFT had indicated that the market infrastructure channel is not required as ASX's current SWIFT infrastructure will be sufficient for customers who choose to take on SWIFT. The next meeting will be held in May just prior to the CDE7 code drop.
- The Implementation and Transition Working Group has been meeting monthly since October 2019 including three meetings so far in 2020. The January meeting focused on plans to manage inflight transactions over the migration cutover weekend and feedback received from members indicated the proposed approach is feasible and supported. The February meeting focused on various aspects of technical accreditation. The most recent meeting focused on providing background on the upcoming consultation on the implementation timeline and more detail on the ITE. The next meeting will likely be on the ITE and there will be a meeting on the CHES UI (browser).
- Presentation materials from these Working Group meetings, including the recordings of these webinars are available on the CHES Replacement web page and summarised in the monthly project newsletters.

- The series of focus groups have been completed but ASX continues to engage with payment providers through the Equity Settlement Payment Provider Sub-committee (ESPPSC).

Members had no other questions or comments on the CHES replacement updates.

b) Industry consultation on revised implementation timeline

ASX made a public announcement 25 March advising that it would be consulting in June on the timeline for implementation of CHES replacement. This was followed up with a webinar that provided some more detail. The decision to consult on the timeline reflected three factors:

- the amount of change generated through the consultation process and captured in the focus groups on particular topics and the ISO 20022 Technical Committee – responding to these requires additional system development;
- some users had expressed interest in having more time to complete their own readiness activities; and
- the impacts that working from home in response to COVID-19 and the challenges flowing from increased market activity have on firms' capacity to prioritise resources for CHES replacement.

ASX is still working to meet its existing internal project milestones leading up to the opening of the ITE in July, although with most staff working at home there is some impact on the time needed to turnaround some workflows.

The exact form of the market-wide consultation is still being considered, with the aim to make it as easy and efficient as possible for stakeholders. When the consultation feedback is received ASX will digest it as quickly as possible so it can respond to the market with the adjustments to the implementation timeline.

All the activities that were in the previously published timeline are still going ahead, for example around testing; accreditation of connectivity, vendors and systems; and dress rehearsal weekends. ASX will be consulting about the timing stakeholders think certain activities should commence and how long they should run for so it can have a greater understanding of the impacts these activities will have on users, particularly given the new working arrangements.

ASX acknowledged the existing challenges and uncertainties firms are facing in the current environment, and this meant that the consultation had been deferred to June, so firms would have time to consider their own operational capacity before the consultation commenced.

A number of individual members expressed their views on the proposed consultation:

- One thought that conducting a consultation in June was very ambitious and should be delayed until all the current work restrictions are completely removed and there is a business as usual operating environment in place. Another, noting the existing resource pressure on participants and the uncertainty around what market and work conditions might be like in June, asked whether there was a backup plan if conditions had not improved by June.
- One, while sympathetic to the views put forward for delay in the consultation, preferred to continue with the current timing given the need for certainty around the revised timelines (by say September this year) to support their annual budgeting cycle and planning into 2021. Another member supported this view as their firm were largely on track with the current timeline and further delays add costs.
- Another member also supported sticking with the June consultation date advocating that the risks to a successful delivery of the project should be the lens to guide the process, i.e. while the consultation can be short and sharp, it should not be not too shallow. The consultation should address the risks and costs associated both with moving ahead with implementation in a timely manner as well as those associated with further delays.

ASX responded that at this stage and with what is known at the moment, it was thought that a consultation commencing in June was a reasonable target, but acknowledged that closer to that date it would be in a better position to consider the environment within which the consultation would be conducted. It was noted that further delays would likely present the industry with additional challenges given the important reasons behind CHES replacement, particularly the need to reduce paper-based and manual processes.

In its recent discussions with users around the proposed consultation, ASX had received feedback about the need to ensure the consultation process is not too onerous and focuses only on the questions that need answering. The June consultation will be used to provide insight into firm's timing preferences to allow ASX to develop a new implementation plan.

A member noted that in addition to having certainty about a new start date as soon as possible that there is a need for ASX to release the proposed pricing framework as soon as possible. ASX responded that while some indicative pricing associated with connectivity options has been released, the development of a pricing framework for clearing and settlement services is still underway. The specifications of the new system are now completed so the underlying information that will inform the pricing framework is available and the work can be further progressed.

A member asked if ASX currently had a preferred start date for the new system. In response, it was noted that any delay should only reflect the time necessary to accommodate reasonable requests for delay. Ultimately the date will be driven by the need to ensure user readiness and that all ASX systems meet the functional and non-functional requirements, including enhanced throughput capacity.

A member noted that the unprecedented events were putting pressure across all sectors of the economy and appreciated the decision to delay CHES replacement to reflect this but questioned if stakeholders (particularly listed companies) will have the capacity to meaningfully respond to any consultation in June. The member also asked if ASX would consider a reset of the approach to (and governance of) consultation, including the use of industry associations, to build a shared ownership of the planning and milestone delivery of the project.

ASX outlined the existing consultation processes and stakeholder forums and working groups that have been involved in developing the system functionality and implementation approaches. These processes have been comprehensive but have not always been able to accommodate everyone's requests. However, it was acknowledged that there would be value in further engagement, particularly with industry associations and their members, to discuss how DLT can solve challenges related to manual and paper-based processes. Recent market experience has again highlighted that paper-based and manual processes can challenge industry during periods of extreme market activity.

ASX agreed to consider how to progress that engagement to better articulate the benefits of the technology as well as the importance of implementing the new system as quickly and safely as possible, but at a pace that industry can accommodate.

c) ISO 20022 Technical Committee Report and Minutes

The Technical Committee met a couple of times since the last Business Committee meeting, with its 7 April meeting potentially being the last one.

Since the Committee commenced its work in December 2016, the suite of 420 in scope CHES proprietary messages has been reduced to 106 ISO 20022 multifunctional messages. This has reflected an extraordinary effort from the Committee in working constructively across a great deal of technical detail.

There is a lot of interest from regional exchanges, other infrastructure operators, and securities and payments service providers on Australia's experience as a case study to guide their own similar exercises.

There were no questions on the ISO 20022 Technical Committee report.

AGENDA ITEM 3: SERVICE ENHANCEMENTS

a) Update on the Corporate Action STP Phase 2 project

ASX provided an update on the project.

Since the last Business Committee meeting the focus has been on delivering the first releases for the project on 30 November 2019 and 22 January 2020. These focused on standardising the structure of selected corporate action announcements to facilitate straight through processing including a number of new (online and Word document) forms.

There has been good feedback from issuers on the functionality of these new forms with some changes incorporated in the January 2020 release. The remaining changes will be included in the next major release. One of the key priorities is providing additional tax information on the forms related to dividends and other distributions.

The project team are also preparing for the second major release which is currently scheduled for June 2020 but may be affected by the revised CHES replacement timeline and the impact of changes to working arrangements on user

preparedness. This release will include the updates to the existing and introduction of the new ISO 20022 corporate action notification messages.

In March updated usage guidelines or specifications for each of the events covered by the service were released for review and are expected to be finalised by the end of April.

The industry working group assisting with key aspects of the project continues to operate, via emails or virtual meetings, on the future deliverables and also the implementation timeline.

Members had no questions on the update.

b) Digitisation of CHESSE statements (verbal update)

ASX reported that work on the technical, electronic delivery, solution (based around an email to holders providing a link to a secure portal) is well underway although it may be delayed by a couple of months due to the practical implications of new working from home arrangements.

There have also been good discussions with a number of broker participants about the practical aspects of delivering client email details via messaging, although the timing of how that might be rolled out will differ amongst brokers. Some may have the ability to deliver emails from Day One of the new CHESSE system, while others might not be in a position until later. There have also been indications that, if investors consent to their email addresses being passed through to issuers, brokers would assist in that process which could be facilitated by the new CHESSE system.

ASX continues to work on the details of the pricing arrangements for the new service, confirming it will involve substantial cost savings for issuers as the take-up of the electronic delivery option grows.

Members had no questions on the update.

AGENDA ITEM 4: ADMINISTRATION

a) Minutes from the 27 November 2019 Business Committee Meeting

The minutes of the 27 November 2019 meeting were approved without further change to those noted in the meeting pack.

b) Forward work program

The Chair noted that the next meeting will focus on the replanning of the implementation timeline for CHESSE replacement.

c) Other matters

There were no other matters raised by members.

AGENDA ITEM 5: NEXT MEETING

The next meeting is currently scheduled for 1 July 2020. The Chair noted that, given the next meeting will focus on the implementation timeline for CHESSE replacement it may be rescheduled to a date after the upcoming consultation has closed and ASX has had time to digest the feedback received. Members will be advised if there is any change to the next meeting date.

The meeting closed at 1.30pm.

Signed as a correct record of the meeting.

Chair

Date

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 5B	
Topic	Forward Work Program
Date	22 July 2020
Purpose of this paper	To update Members on the forward work program of the Business Committee for 2020.

OVERVIEW

It is proposed that there will be two further meetings of the Business Committee in 2020. The proposed Business Committee dates are:

- Wednesday, 23 September 2020; and
- Thursday, 19 November 2020.

Subject to any input from members who wish to suggest additional items, the forward work program of the Business Committee in 2020 will be predominately focused on CHES replacement: technology development, business requirements, and implementation processes.

A second major stream of work will be Corporate Action STP Phase 2. The Corporation Action STP Phase 2 working group, which comprises a range of stakeholders, is expected to meet up until at least September 2020.

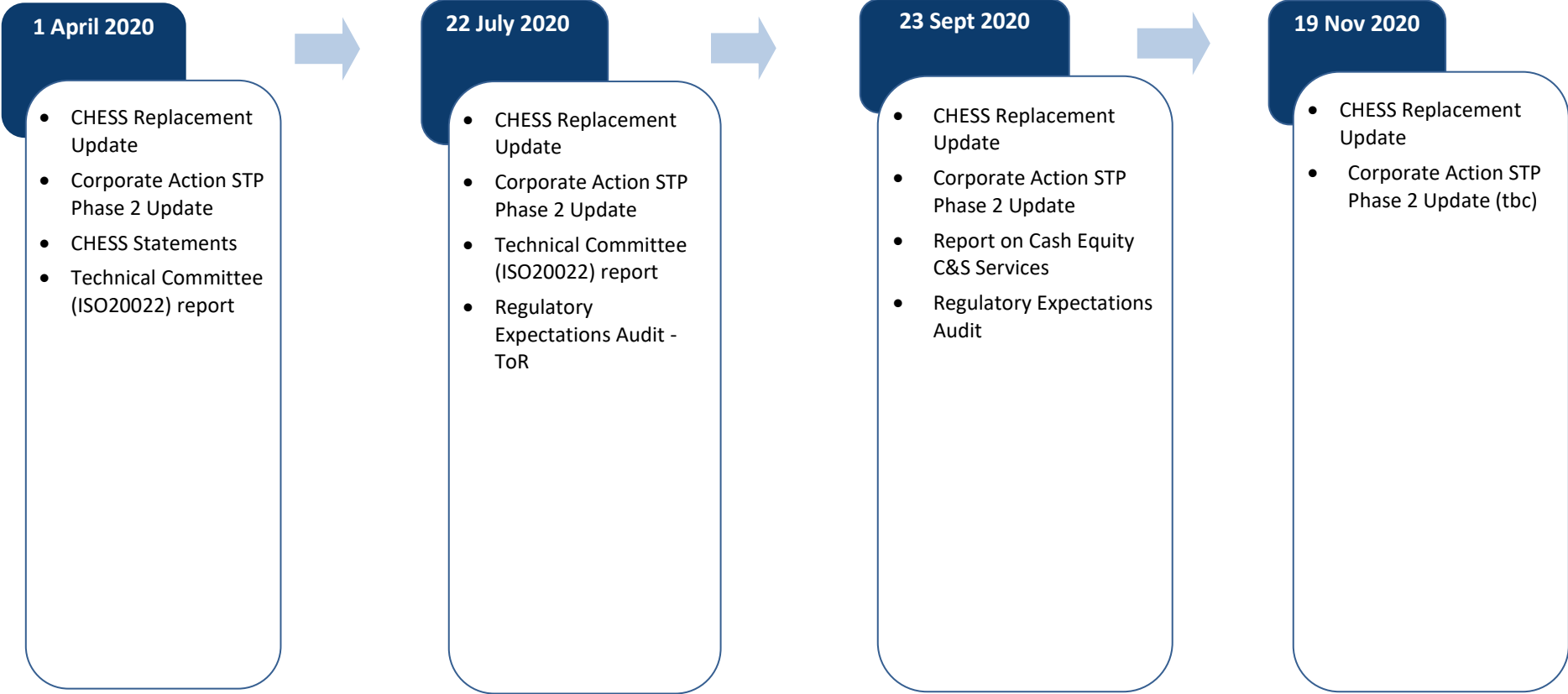
Members of the Business Committee are invited to suggest topics for inclusion in the forward work program at any time by contacting the Business Committee Secretariat.

The April meeting of the ISO 20022 Technical Committee was the last meeting of that committee.

ATTACHMENTS

Attachment A – Business Committee Forward Work Program

Attachment A: Business Committee Forward Work Plan



Note: the forward work program does not include the standing agenda items for each meeting.