

B.11

CIRO, Marketplaces, Clearing Agencies and Trade Repositories

B.11.2 Marketplaces

B.11.2.1 Canadian Securities Exchange – Significant Change Subject to Public Comment – Introduction of CSE Market-on-Close – Notice and Request for Comments

CANADIAN SECURITIES EXCHANGE
SIGNIFICANT CHANGE SUBJECT TO PUBLIC COMMENT
INTRODUCTION OF CSE MARKET-ON-CLOSE
NOTICE AND REQUEST FOR COMMENTS

CNSX Markets Inc., operator of the Canadian Securities Exchange (CSE or Exchange) is filing this Notice in accordance with the process for the Review and Approval of Rules and Information Contained in Form 21-101F1 and the Exhibits Thereto attached as Appendices to the Exchange's recognition orders (the Protocol). CSE is proposing to introduce a Market-on-Close facility (CSE MOC) the operation of which is described in further detail below (Significant Change).

A. Description of the Significant Change

The Exchange is introducing the CSE MOC to operate on CSE, CSE's primary book, for select CSE Listed securities. Based on feedback received during stakeholder consultations, we have adopted a model substantively similar to one that already operates in Canada.

Throughout this Section A we describe the design of the CSE MOC, the new MOC order types, the MOC closing price calculation, the MOC matching priority, the CSE Extended Offset Period (EOP), and other integral aspects of the proposed structure of the new CSE MOC.

(1) Glossary of Terms

Defined Term	Definition
CSE BBO	CSE Best Bid and Offer
CLOB	Central Limit Order Book
Closing Delayed State	The state of a symbol during EOP. This is only applicable to symbols that do not close by 4:00 p.m.
EOP	Extended Offset Period
Failed EOP	A Failed EOP occurs if the MOC CP is outside the MOC Closing Price Limit Thresholds (Table 3) at 4:10 p.m.
LOC Order	Limit-on-Close Order
MOC CP	MOC calculated closing price
MOC Freeze	New market state during which restrictions begin to be imposed on the entry, modification, and cancellation of MOC Orders and LOC Orders in order to stabilize or reduce the MOC imbalance volume.
MOC Imbalance	New market state during which information regarding the imbalance volume of MOC Orders and LOC Orders priced equal to or more aggressive than the MOC Imbalance Reference Price (MRP) and the MRP begins to be distributed as public market data.

MOC Match	The matching process that occurs for MOC Orders, LOC Orders, and CLOB orders using the MOC Matching Priority. Occurs at 4:00 if EOP is not required, and at 4:10 if EOP is required.
MOC Matching Priority	The matching priority for orders that participate in the MOC Match.
MOC Order	Market-on-Close Order
MRP	MOC Imbalance Reference Price
VWAP	The Volume-Weighted Average Price of CSE trades only

(2) *The CSE MOC Process*

To facilitate the implementation of the CSE MOC, CSE will introduce two new MOC specific order types: a Market-on-Close Order (MOC Order) and a Limit-on-Close Order (LOC Order). CSE will also introduce three new market states: the MOC Imbalance, the MOC Freeze, and the EOP. The operation of the CSE MOC is described in Table 1. CSE has also prepared illustrative examples of the operation of the CSE MOC. These are available on the CSE website at www.thecse.com/CSE-MOC-examples.

TABLE 1 The CSE MOC Process	
CSE State(s)	Description
<p>Pre-Open 7:00 a.m.</p>	<ul style="list-style-type: none"> • CSE begins to accept MOC Orders and LOC Orders. • MOC Orders and LOC Orders can be entered, amended, or cancelled.
<p>Continuous Trading starts 9:30 a.m.</p>	
<p>MOC Imbalance starts at 3:50 p.m.¹ and ends between 3:56-3:57 p.m. (i.e., when the randomized MOC Freeze begins)</p>	<ul style="list-style-type: none"> • MOC Imbalance notification message dissemination begins. <ul style="list-style-type: none"> ○ The MRP is defined and disseminated with a message frequency of every 10 seconds. ○ The MRP is defined by the mid-point of the CSE Best Bid and Best Offer (CSE BBO). • CSE calculates the imbalance volume of MOC Orders and LOC Orders that are priced equal to or more aggressively than the MRP, then broadcasts the imbalance volume and the MRP used in calculating it throughout the MOC Imbalance. • MOC Orders can be entered but not amended or cancelled (including as a result of the cancel on disconnect feature). • LOC Orders can be entered without restriction on price, side, or volume but cannot be cancelled (including as a result of the cancel on disconnect feature). • Amendments to LOC Order price are only permitted to a more aggressive price. Any other amended attributes are ignored.
<p>MOC Imbalance ends and MOC Freeze starts 3:56-3:57¹ [time randomized]-4:00 p.m.</p>	<ul style="list-style-type: none"> • MOC Orders can no longer be entered, amended, or cancelled (including as a result of the cancel on disconnect feature). • New LOC Orders can be entered subject to being repriced (pegged) or cancelled. • LOC Orders entered during the MOC Freeze state are either pegged to the MRP (if the order limit price is more aggressive than the MRP) or to the order limit price as entered (if the order limit price is less aggressive than the MRP), unless they are marked as not to be pegged (in which case, they are cancelled). For pegged LOC Orders, the order price is rounded up to the nearest valid tick for buys and rounded down to the nearest valid tick for sells. • At the end of the MOC Freeze (4:00 p.m.¹), the following occurs: <ul style="list-style-type: none"> ○ A MOC Match is conducted for securities that do not require an EOP based on MOC Closing Price Limit Thresholds (see Table 3 below). ○ All symbols not required to enter EOP are marked as Closed. ○ MOC Imbalance Notification messages for MOC eligible symbols that have closed are cleared.

¹ For partial trading days, CSE will adjust the schedule relative to any scheduled early close time.
Example: If the early close is scheduled for 13:00 p.m., the MOC Imbalance Period will begin at 12:50.

<p>EOP and MOC Match for EOP symbols 4:00-4:10 p.m.¹</p>	<ul style="list-style-type: none"> • An EOP MOC Imbalance message is sent at 4:00 p.m. for MOC eligible symbols that have not closed and have entered a Closing Delayed State (see subsections (4) and (5) for details) • LOC Orders can be entered provided they offset the remaining imbalance, do not exceed the remaining imbalance volume, and meet pricing requirements (see subsection (3)). • A MOC Match is conducted at 4:10 for symbols that required an EOP. • MOC Orders and LOC Orders with any remaining volume expire at the end of the MOC Match.
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(3) CSE MOC Order Types

At launch, the CSE MOC will offer participants two new order types to facilitate participation in the closing auction for CSE MOC eligible symbols – the MOC Order and the LOC Order. Table 2 compares the features of these two new order types.

<p align="center">TABLE 2 MOC Order and LOC Order Types</p>		
<p align="center">Feature</p>	<p align="center">MOC Order Type</p>	<p align="center">LOC Order Type</p>
<p>Lot Size</p>	<ul style="list-style-type: none"> • MOC Orders and LOC Orders can be board lot, mixed lot, or odd lot volumes. 	
<p>Entry Time</p>	<ul style="list-style-type: none"> • MOC Orders can be entered between 7:00 a.m. and the start of the MOC Freeze state. • During the MOC imbalance period MOC Orders can be entered but not amended or cancelled. 	<ul style="list-style-type: none"> • LOC Orders can be entered between 7:00 a.m. and the Close (which includes an EOP if required). • During the MOC Imbalance period LOC Orders can be entered but cannot be cancelled. • During the MOC Imbalance period, amendments to the price of a LOC Order are only permitted with a more aggressive price.
<p>Multicast Feed</p>	<ul style="list-style-type: none"> • MOC Orders and LOC Orders are not disseminated on the Multicast Market Data Feed. 	
<p>Modifications and Cancellations During Pre/Open and Continuous Trading</p>	<ul style="list-style-type: none"> • MOC Orders and LOC Orders can be amended or canceled between 7:00 a.m. and the start of the MOC Imbalance period. 	
<p>Interaction during MOC Imbalance</p>	<p>During the MOC Imbalance:</p> <ul style="list-style-type: none"> • MOC Orders can be entered. • MOC Orders cannot be cancelled (including as a result of the cancel on disconnect feature). • MOC Orders cannot be amended. 	<p>During the MOC Imbalance:</p> <ul style="list-style-type: none"> • LOC Orders can be entered (without restriction on price, side, or volume). • LOC Orders cannot be cancelled (including as a result of the cancel on disconnect feature). • Amendments to LOC Orders are only permitted to a more aggressive price.
<p>Interaction during MOC Freeze</p>	<p>During the MOC Freeze:</p> <ul style="list-style-type: none"> • MOC Orders cannot be entered, amended, or cancelled. 	<p>During the MOC Freeze:</p> <ul style="list-style-type: none"> • LOC Orders can be entered (without restriction on price, side, or volume). • LOC Orders received during the MOC Freeze are automatically marked as pegged LOC Orders unless they are marked as not to be pegged, in which case they are cancelled; the orders are either pegged to the MRP (if the order limit price is more aggressive than the MRP) or to the order limit price as entered (if the order limit price is less aggressive than the MRP). • LOC Orders cannot be cancelled (including as a result of the cancel on disconnect feature).
<p>Interaction during the MOC Match</p>	<ul style="list-style-type: none"> • A MOC Match is conducted at 4:00 for securities that do not require an EOP. • A MOC Match is conducted at 4:10 for securities that require an EOP. • Unmatched MOC Orders and LOC Orders with any remaining volume expire at 4:10. 	

<p>Interaction during EOP</p>	<p>During the EOP:</p> <ul style="list-style-type: none"> • MOC Orders cannot be entered, amended, or cancelled. 	<p>During the EOP:</p> <ul style="list-style-type: none"> • LOC Orders can be entered during the EOP, provided that the order meets the following requirements: <ul style="list-style-type: none"> ○ the LOC Order offsets the MOC imbalance; ○ does not exceed the Imbalance Volume; and ○ has a limit price between the Failed EOP Maximum Deviation from the MRP and the Central Limit Order Book (CLOB) last sale price, see Table 3 for details. • LOC Orders that do not meet these requirements are cancelled.
<p>Maximum Duration</p>	<ul style="list-style-type: none"> • MOC Orders and LOC Orders are valid until the end of the MOC match. • Open MOC Orders and LOC Orders with any remaining volume are cancelled at the end of MOC session. 	
<p>Odd Lots</p>	<ul style="list-style-type: none"> • Odd lot MOC Orders and odd lot LOC Orders are only matched if at least one board lot MOC Order or LOC Order will trade. • All odd lots, and any board lot orders that are matched with odd lot orders, are automatically filled by the symbol's Market Maker. 	
<p>Assignment of Passive or Active States</p>	<ul style="list-style-type: none"> • The CSE MOC will use the following methodology to assign "active" (i.e., took liquidity) or "passive" (i.e., provided liquidity) order states to orders that trade in the MOC Match: <ul style="list-style-type: none"> ○ Any orders in the CLOB that trade in the MOC Match are marked as Passive, and any MOC Orders or LOC Orders that trade against them are marked as Active. ○ For MOC Orders and LOC Orders that trade in the MOC match with other MOC Orders and LOC Orders, the order entered first is marked as Passive, and the other order is marked as Active. ○ For Market Maker autofill orders, the Market Maker side is marked as Passive, and the counterparty side is marked as Active. 	

(4) Calculation of the Closing Price for a MOC Eligible Security

The calculation method for the CSE MOC Calculated Closing Price (MOC CP) for a MOC eligible security depends on whether an EOP session is required for the security.

Specifically, an EOP session is required if the MOC CP exceeds the MOC Closing Price Limit Thresholds outlined in Table 3. If an EOP is required, the MRP becomes the last sale price for the symbol in the CLOB. If the MOC Closing Price Limit thresholds are not exceeded, there is no EOP required and the symbol closes at the MOC CP.

**TABLE 3:
MOC Closing Price Limit Thresholds**

<p>A symbol enters EOP if the MOC CP is outside of all the following threshold range limits:</p> <ul style="list-style-type: none"> • The Price Threshold Percentage above or below the MRP; • The Price Threshold Percentage above or below the last 20-minute Volume-Weighted Average Price (VWAP, see Figure 1 below, only includes CSE trades); • 5 ticks above or below the MRP; and • 5 ticks above or below the last 20-minute VWAP. 		
MOC Imbalance Reference Price (MRP)	Price Threshold Percentage (MOC CP Maximum Deviation from the MRP)	Failed EOP Maximum Deviation from the MRP
\$0.9999 and under	5%	15%
\$1.0000 and over	3%	10%

FIGURE 1
Volume-Weighted Average Price (VWAP) Calculation¹

$$VWAP = \frac{\sum(\text{Price} \times \text{Volume})}{\sum \text{Volume}}$$

- $\sum(\text{Price} \times \text{Volume})$ represents the total dollar amount traded (price multiplied by volume for each trade).
- $\sum \text{Volume}$ is the total volume traded during the period.

¹ Note that the VWAP Calculation only includes CSE trades.

(5) MOC Calculated Closing Price for a Symbol that Does Not Require an EOP

The MOC CP for CSE MOC eligible symbols is calculated as the price at which the maximum volume of MOC Orders, LOC Orders, and CLOB board lot orders can execute.

For symbols that do not enter a Closing Delayed State because they do not exceed Table 3 MOC Closing Price Limit Thresholds and therefore do not require an EOP session, the MOC CP calculation considers the following factors:

- i. If there is more than one price point for the maximum possible traded volume, the price that minimizes the imbalance of MOC Orders and LOC Orders is used.
- ii. If there is more than one price point for the minimum imbalance, the price that is closest to the midpoint of the CSE BBO is used.
- iii. If there is more than one price point with the same distance from the CSE BBO midpoint, the higher of the two prices is used.
- iv. If the closing price is calculated to an invalid tick value, the calculated price is rounded up to the nearest valid tick value.

(6) EOP and the MOC CP for a Symbol that Requires an EOP

As indicated in subsection (4) an EOP is required for MOC eligible symbol(s) that have not closed by 4:00 p.m. and are in a Closing Delayed State because the MOC CP for the symbol(s) exceeds the MOC Closing Price Limit Thresholds when calculated against the MRP. The EOP runs from immediately after market close until 4:10 p.m. as required. A timeline of the EOP session is as follows:

- i. At 4:00 p.m., CSE determines whether an EOP is required for any CSE MOC eligible symbols. Symbols whose MOC CP, as calculated at 4:00 p.m., exceed the MOC Closing Price Limit Thresholds (Table 3) will enter the EOP. During the EOP, the CLOB Last Sale price replaces the Midpoint CSE BBO to define the MRP.
- ii. To solicit additional liquidity for symbols requiring an EOP, CSE disseminates an EOP MOC Imbalance message at 4:00 p.m. identifying the Symbol, MRP, Imbalance Side, and Imbalance Volume. During the EOP, only LOC Orders are accepted provided that:
 - a) They are on the opposite side of the imbalance disseminated at 4:00 p.m.
 - b) The volume is less than or equal to the last advertised imbalance volume.
 - c) The limit price is within the Failed EOP Maximum Deviation from the MRP (see Table 3).
- iii. At 4:10 p.m., if the MOC CP is still outside the MOC Closing Price Limit Thresholds (see Table 3), the closing price of the symbol is calculated as the price within the Failed EOP Maximum Deviation percentage from the MRP that results in the greatest traded volume, leaving the smallest imbalance volume. If the closing price is calculated to an invalid tick value, the calculated price is rounded up to the nearest valid tick value.

(7) MOC Matching Priority

The MOC Matching Priority for the CSE MOC is as follows:

- i. MOC Orders match with:
 1. Same firm attributed (and not Jitney) MOC Orders in time priority.
 2. MOC Orders in time priority.
 3. Same firm attributed (and not Jitney) LOC Orders, Pegged LOC Orders, and disclosed portions of CLOB orders in price/time priority.
 4. LOC Orders, Pegged LOC Orders, and disclosed portions of CLOB orders in price/time priority.
- ii. LOC Orders, LOC Orders pegged to the MRP, and disclosed CLOB orders match with:
 1. Same firm attributed (and not Jitney) LOC Orders, LOC Orders pegged to the MRP, and disclosed CLOB orders in price/time priority.
 2. LOC Orders, LOC Orders pegged to the MRP, and disclosed CLOB orders in price/time priority.
- iii. Undisclosed portions of CLOB orders match with:
 1. LOC Orders and Pegged LOC Orders in price/time priority.
- iv. LOC Orders pegged to their limit price match with:
 1. Same firm attributed (and not Jitney) LOC Orders, LOC Orders pegged to their limit price, and disclosed CLOB orders in price/time priority.
 2. LOC Orders, LOC Orders pegged to their limit price, and disclosed CLOB orders in price/time priority.
- v. Remaining MOC Orders and LOC Orders are matched with remaining offsetting odd lot MOC Orders and LOC Orders where there are sufficient odd lots to represent board lots.

(8) Order Types Eligible for MOC

Except for the order types specifically listed below, order types eligible for trading in the CLOB will also be eligible to participate in the CSE MOC, as will any MOC Orders and LOC Orders.

The following order types will not be eligible to participate in the CSE MOC:

- Special terms orders
- CLOB odd lot orders and odd lot portions of CLOB mixed lot orders
- Untriggered On Stop orders (On Stops do not trigger due to CSE MOC trades)
- CLOB Pegged orders

(9) Eligibility of Securities for Inclusion in CSE MOC

CSE will determine which CSE Listed securities will be eligible for inclusion in the CSE MOC. Upon implementation, it is expected that CSE will use a staggered approach, phasing in the inclusion of MOC eligible securities over time. CSE will exercise its discretion in determining the initial and ongoing eligibility of a particular security for inclusion in the CSE MOC relying on factors such as average trading volume, adequate liquidity, volatility, and other trading parameters, as well as participant and issuer feedback. CSE may remove a symbol's MOC eligibility at any time. Only securities with a set market maker are eligible for inclusion in the CSE MOC.

CSE may also, in its discretion, consider direct requests by issuers and market participants for the inclusion and removal of specific securities in the CSE MOC.

CSE will provide marketplace participants with notice of the inclusion or removal of a symbol from the CSE MOC.

(10) Dissemination of MOC eligibility

CSE will disseminate a list of MOC eligible symbols at the beginning of each trading day via the CSE Multicast Market Data feeds, as well in the symbol dynamics field for any intraday updates to MOC inclusion on a symbol. The list of MOC eligible symbols will also be posted daily to the CSE website.

(11) New MOC Messages

To accommodate the CSE MOC, CSE is also introducing the following new message fields:

TABLE 4 MOC Imbalance Message Fields¹	
Field Name	Description
Imbalance Side	Marker to indicate which side has a Volume Imbalance for Market-on-Close.
MOC Imbalance Reference Price	MOC Imbalance Reference Price is the midpoint of the CSE BBO ₂
Imbalance Volume	Identifies the volume of shares of the Imbalance side of MOC.
Paired Volume	The number of MOC Order and LOC Order shares that can be matched at the MRP.
Market Order Imbalance Side	The buy or sell side of the MOC Order Only Imbalance Volume.
Market Order Imbalance Volume	Indicates the volume of shares on the Imbalance when considering MOC Orders only. Does not change following the MOC Freeze.
MOC Indicative Closing Price	The closing price calculated to maximize the number of shares matched based on the MOC Orders, LOC Orders, and visible CLOB orders. This price is what the closing price would be if it occurred at that moment in time.
MOC Only Closing Price	The closing price calculated to maximize the number of shares matched based on MOC Orders and LOC Orders only. This calculation does not include CLOB orders.
Price Variation	This field indicates the absolute value of the percentage of deviation of the MOC Indicative Closing Price to the nearest MRP.
¹ This message is disseminated at 10 second intervals from the beginning of the MOC Imbalance state until 10 seconds before the close.	

TABLE 5 EOP MOC Imbalance Message Fields¹	
Field Name	Description
MOC Imbalance Reference Price	The MOC Imbalance Reference Price (MRP) during an EOP is the last sale price. If there is no last sale price, then the MRP in the EOP is the previous day's closing price.
Imbalance Side	Marker to indicate which side has a Volume Imbalance for Market-on-Close.
Imbalance Volume	Identifies the volume of shares on the Imbalance side of MOC.
VWAP	Volume-weighted average price based on trades.
¹ If an EOP is required, this message is transmitted only once at 4:00 p.m.	

B. Expected Implementation Date

CSE expects to be able to introduce the CSE MOC in Q1 of 2025 following receipt of regulatory approval and following an appropriate testing period for market participants.

C. Rationale for the Proposal and any Relevant Supporting Analysis

Over the last few years, CSE has experienced unprecedented growth in the size and number of CSE Listed issuers and their securities. Nevertheless, trading in CSE Listed securities remains, as it does for all Canadian securities, fragmented across multiple trading and execution venues in Canada. The CSE MOC is being introduced to allow for a source of centralized liquidity for eligible CSE Listed securities, with the potential to concentrate liquidity, reduce volatility, and increase the size of execution during the closing auction. The CSE MOC will increase market stability by offering market participants the opportunity for high quality price discovery based on a closing price supported by a deeper order book with spreads reflective of the information that has become available during the trading day. CSE believes that facilitating liquidity and efficiency supports an increase in trade activity which in turn promotes price discovery, and, more importantly, fair, and efficient markets.

D. Expected Impact

The CSE MOC will have a positive impact on Canadian market structure by introducing an additional point of market certainty and reduced volatility in a subset of Canadian securities. It will increase available liquidity during the closing auction and will allow market participants better access to the liquidity in eligible CSE Listed securities.

By facilitating price discovery, transparency, and liquidity in the CSE trading book the CSE MOC can potentially increase the attractiveness of eligible CSE Listed issuers for a wider range of investors and market participants.

The introduction of the CSE MOC will have no impact on systemic risk in the Canadian financial system.

E. Compliance with Ontario and British Columbia Securities Law

There is no expected impact on the CSE's compliance with Ontario or British Columbia securities laws. The Significant Change will not affect fair access or the maintenance of fair and orderly markets. The Significant Change is consistent with the fair access requirements set out in section 5.1 of NI21-101.

The CSE MOC will be equally accessible to all marketplace participants and may in fact increase participation and provide market certainty for MOC eligible securities in times of volatility which will in turn assist in the maintenance of fair and orderly markets.

F. Technology Changes

The introduction of the CSE MOC will require systems vendors, CSE Dealers, as well as other market participants to make technical changes and/or updates to their systems. However, we have aligned the requirements of the proposed CSE MOC to match as closely as is reasonable to closing auctions already in place at other Canadian listing exchanges to decrease the impact on the existing dealer workflows and reduce the amount of development work required.

G. Discussion of any Alternatives Considered

CSE considered several alternative market-on-close models that did not align as closely to existing Canadian closing auctions. After consultations with marketplace participants, CSE elected to pursue closer alignment to existing Canadian practices which is reflected in the proposed Significant Change.

H. Other Markets or Jurisdictions

Similar closing auctions are already in place at a number of marketplaces both in Canada and in international jurisdictions.

I. Comments

Please submit comments on the proposed amendments no later than June 3, 2024 to:

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