TSX Trading Fee Schedule Effective May 1, 2017

Toronto Stock Exchange (TSX)

TSX Participating Organization Membership Fees¹

Initial Application Fee: \$5,000

Registration Fee (trading applicant): \$60,000

\$45,000 of the registration fee will be applied as a credit towards the first year's trading fees

Registration Fee (non-trading applicant): \$15,000

\$45,000 will be applied as a trading registration upgrade fee with the trading activation of a PO number \$45,000 of the registration upgrade fee will be applied as a credit towards the first year's trading fees

Monthly Membership Fee: \$1,500

TSX Trading Fees²

Opening Trades: \$0.0030 / share / side up to a maximum of \$30 / trade / side

Monthly fee cap at maximum \$100,000 per firm

Must Be Filled (MBF): \$0.0030 / share / side up to a maximum of \$90 / trade / side

Market on Close (MOC): \$0.0030 / share / side up to a maximum of \$30 / trade / side

Extended Trading: \$0.0010 / share / side

Minimum Guaranteed Fill (MGF): \$0.0004 per share where trade price is under \$1

\$0.0030 per share where trade price is \$1 or over for interlisted equities³ \$0.0017 per share where trade price is \$1 or over for non-interlisted equities⁴

\$0.0017 per share where trade price is \$1 or over for ETFs

Applies to trades executed against the Market Maker guaranteed fill service

Odd Lot Fill: \$0.00025 per share where trade price is under \$1

0.0005 per share where trade price is 1 or over

Applies to trades auto-executed against the Market Maker during Post-Open

Continuous trading and in the MOC

MGF Cancellations: \$100 per cancellation

Attributed to the participant responsible for causing an MGF trade to be cancelled

Special Settlement Terms: \$0.0010 / share / side up to a maximum of \$100 / trade / side

Cross Printing Facility: Free

Unintentional crosses are billed according to fees for Post-Open Continuous

trades

Specialty Crosses: Free

Basis, VWAP, Contingent, Special Trading Session, Internal crosses

Notes/Debentures: \$0.10 per \$1000 par value / side

¹ Initial application and registration fees for new participating organizations and monthly membership fees are subject to GST/HST.

² Other than as otherwise noted, TSX Trading Fees are GST/HST exempt.

³ A list of interlisted equities for which interlisted rates will apply during the given month will be made available on the TSX website at the beginning of each month. For ETFs that are interlisted, the ETF rates shall apply.

⁴ Rates apply to any other traded products for which rates have not been otherwise specified.

TSX Post-Open Continuous Trades in Equities and Exchange Traded Funds (ETFs):5,6

	Where trade price per share is:				
	<\$0.10	\$0.10 - \$0.99	≥\$1.00		
			Interlisted Equities ⁷	Non-Interlisted Equities	ETFs
Displayed Order Volume					
Removing ⁸	\$0.000025	\$0.000075	\$0.0027	\$0.0015	\$0.0015
Providing	\$0.000025	\$0.000075	(\$0.0023)	(\$0.0011)	(\$0.0011)
Dark Order Volume					
Removing	\$0.000025	\$0.000075	\$0.0010	\$0.0010	\$0.0010
Providing ⁹	\$0.000025	\$0.000075	\$0	\$0	\$0

TSX Market Maker Trading Fees on Symbols of Responsibility: 10,11

Symbol Credits A Tier B symbol credit of \$100 per symbol of responsibility per

month is awarded to Market Makers who meet their monthly performance scores

and who have at least one execution during the month on their symbol of responsibility.

A Market Maker symbol credit of \$20 per symbol of responsibility

per month is awarded to all Market Makers. This \$20 credit is in addition to the

above Tier B symbol credit.

Odd Lot Fill: (\$0.0000) per share

Rate applies to liquidity provided against auto-execution of odd lots during Post-Open Continuous Trading and in the MOC

Post-Open Continuous Trades on Symbols of Responsibility:

	Where trade price per share is:					
	<\$1.00	≥\$1.00				
		Interlisted Equities ⁷	Non-Interlisted Equities	ETFs		
Displayed Order Volume						
Removing ⁸	\$0	\$0.0027	\$0.0015	\$0.0015		
Providing	(\$0.00005)	(\$0.0030)	(\$0.0019)	(\$0.0019)		
Dark Order Volume						
Removing	\$0	\$0.0010	\$0.0010	\$0.0010		
Providing ⁹	(\$0.0005)	\$0	\$0	\$0		

⁵ Rates are based on share volume executed, including for executions resulting from matches through Self Trade Management. A firm-wide net credit for Post-Open Continuous trades will first be applied to offset the firm's other trading charges. Any remaining net credit will be paid out to the firm.

⁶ Rates apply to post-open continuous trades in equities, ETFs and any other traded products for which rates have not been otherwise specified. 7 A list of interlisted equities for which interlisted rates will apply during the given month will be made available on the TSX website at the beginning of each month. For ETFs that are interlisted, the ETF rates shall apply.

⁸ Rates for removing displayed order volume apply when removing both the disclosed and undisclosed portion of iceberg order volume.

⁹Rates for providing dark order volume apply to executions of the undisclosed portion of iceberg order volume.

¹⁰ Fees waived for opening, Notes and Debentures trades. All other specialty products are billed at regular rates.

¹¹ For a Market Maker other than an ETF Market Maker, the first \$20,000 of net monthly fee generated on trading in its symbols of responsibility will be

Common Technology and Other Fees

(Monthly Charges, except as otherwise stated)^{12,13}

TECHNOLOGY FEES

Product	Applicable to Each of TSX, TSXV, TSX Alpha Exchange
1 Gb Connectivity (Demarcation) ¹⁴	No Charge
10 Gb Connectivity (Demarcation) ¹⁴	\$1,500 for first primary connection \$1,000 for additional primary connection \$1,000 for disaster recovery connection
New FIX certification	\$3,000 (one-time)
Session bundle set-up	\$500 per bundle (one-time)

TESTING FEES

Product	Applicable to Each of TSX, TSXV, TSX Alpha Exchange		
General Test Environment (GTE) only	\$2,000		
Base amount for weekend tests	\$2,500 per test		

BROADCAST FEED FEES

Product	TSX	TSXV	TSX Alpha Exchange
Broadcast Feeds ^{14,15}			
Participating Organization / Member – Internal Use License Fees ¹⁶			
Direct – public and own private content	\$3,000	\$2,000	\$2,000
Direct – own private content only	\$600	\$400	\$400
Indirect – own private content only	\$400	\$250	\$250
Vendor – External Use License Fee ¹⁷			
Public and private content	\$5,500	\$4,000	\$4,000
Private content only	\$1,500	\$1,000	\$1,000
Fee per decryption key / decrypted feed received	\$150	\$100	\$100
(by key / for each Participating Organization / Member			
represented in decrypted private content)			

¹² Technology, testing and broadcast feed fees are subject to GST/HST

Technology, testing and broadcast reed rees are subject to GST/RST
 Common Technology and Other Fees' apply with respect to access to the common TMX equities marketplace network infrastructure whether accessing one or all of the TMX equities marketplaces. The 'General Test Environment (GTE) only' fees similarly provide for access to the test environment for all TMX equities marketplaces.
 Vendor and participating organization / member are responsible for carrier communication costs.
 All uses of broadcast feeds must be approved by TSX / TSXV / TSX Alpha Exchange in accordance with the terms of the applicable agreement(s).

Additional fees may apply under the TMX Datalinx Market Data Distribution Rates and TSX Alpha Exchange Market Data Fees fee schedules, as

applicable.

16 Broadcast feed fees applicable to Participating Organizations / Members generally apply where the Participating Organization / Member is directly receiving a broadcast feed for internal use or where directly or indirectly receiving feed containing Participating Organization's / Member's own private content for internal use, as applicable. A Participating Organization / Member in receipt of a decryption key / feeds of decrypted private content

pertaining to another Participating Organization / Member will be considered a Vendor for the purposes of the fee schedule.

17 Broadcast feed fees applicable to vendors generally apply where directly receiving a broadcast feed for redistribution and/or where in receipt of a decryption key pertaining to the private content of a third party or in receipt of a feed containing the decrypted private content of a third party.