TMX Quantum XA™
Implementation Update

TMX is pleased to provide an update on the launch of its next generation equity trading technology, TMX Quantum XA. TMX Quantum XA will provide TMX Group equity trading customers with dramatically enhanced performance as well as more efficient order processing. As originally planned, TMX Select will be the first TMX marketplace to migrate to TMX Quantum XA.

Significant progress has been made in preparing for the implementation on TMX Select since the initial announcement of TMX Quantum XA in PO Notice 2012-007 published February 1, 2012. Below is a summary of the key milestones reached:

- April 2012: Publication of FIX 4.3 order entry specifications for TMX Select
- October 2012: Availability in test environment (GTE) and publication of certification kits
- December 2012: Production availability for connectivity testing
- December 2012: Implementation of 10Gb connectivity

GTE Testing for TMX Select Migration to TMX Quantum XA

- The test environment and certification kits were made available in October 2012.
- Anyone with a direct connection to TMX Select with a certified order entry application will be required to complete a re-certification process on TMX Quantum XA
- Please contact TSX Market Operations at 416-947-4705 for further information related to certification and testing.

TMX Select Symbol Migration to TMX Quantum XA

Symbols on TMX Select will be migrated onto TMX Quantum XA over three phases commencing Monday July 29, 2013. The following symbols/symbol groups will be migrated to TMX Quantum XA on the following dates:

- **Monday July 29, 2013** – all symbols beginning with the letter "Q"
- **Monday August 12, 2013** – all symbols beginning with letters A to L (i.e. symbols begin with the letters A, B, C, D, E, F, G, H, I, J, K, and L)
- **Monday August 19, 2013** – remaining symbols beginning with the letters M to Z

Subsequent weekends will be announced at a later date for contingency migration dates if needed.
The changes required to impacted customers to trade on the new TMX Quantum XA platform for the TMX Select implementation are summarized as follows:

- For customers currently using STAMP, continue using the existing STAMP protocol to route orders to TMX Select on TMX Quantum XA
- Customers using FIX must send orders for symbols that have migrated to TMX Quantum XA using FIX 4.3 protocol. Orders for symbols that have yet to migrate are to be routed via the existing FIX 4.2 protocol
- New order entry session bundles are required to access TMX Select on TMX Quantum XA and to trade the TMX Select symbols migrated to Quantum XA. Orders for symbols that have yet to migrate are to be routed via existing connections
- Ensure orders can be routed to TMX Select by symbol and IP address. Orders for symbols migrated to TMX Quantum XA must be sent to a different destination IP address than orders for symbols that have yet to migrate
- No changes for TSX, TSX Venture, and Alpha. Orders to these markets can continue being routed using existing protocols with existing sessions

Customers who prefer not to manage dual connectivity to existing TMX Select and TMX Select on TMX Quantum XA during the migration period may consider using the TMX Smart Order Router on a temporary basis. Please contact your Account Manager to discuss this option.

**TMX Select Market Data**

The format, delivery, or content of TMX Select Market Data products and services are not impacted by TMX Quantum XA. Customers are not required to take any action or make any changes related to their TMX Select Market Data services as a result of the migration of TMX Select to TMX Quantum XA.

**Customers Impacted**

Anyone with a direct connection to TSX, TSX Venture, TMX Select or Alpha with a certified order entry application will be impacted by the TMX Quantum XA upgrade. This includes, but is not limited to:

- Service Bureau vendors
- Participating Organizations, Members, or Subscribers with in-house proprietary systems
- Software providers
- DMA customers supporting direct connections

Customers that access TSX, TSX Venture, or TMX Select through a service bureau or third party access vendor are encouraged to reach out to their vendor contacts to discuss what, if any, changes may be required.

**TSX, TSX Venture, and Alpha Migration to TMX Quantum XA**

The migration of TSX, TSX Venture, and Alpha onto TMX Quantum XA is planned to commence mid-2014. Further details regarding the TSX / TSX Venture / Alpha implementation will be provided at a later date.
For any questions related to this notice, please contact your TMX Account Manager by email at trading_sales@tsx.com or by phone at the below numbers.

Emily Choi   (416) 947-4248
Brenda Cunnington  (416) 947-4241
Jeff Foster   (416) 947-4229
Monika Marcziova (416) 947-4534
Stephanie Orloff  (416) 814-8848
Olga Trofimova  (416) 947-4355

About TMX Group (TSX-X)

TMX Group’s key subsidiaries operate cash and derivative markets and clearinghouses for multiple asset classes including equities, fixed income and energy. Toronto Stock Exchange, TSX Venture Exchange, TMX Select, Alpha Group, The Canadian Depository for Securities, Montreal Exchange, Canadian Derivatives Clearing Corporation, Natural Gas Exchange, BOX Options Exchange, Shorcan, Shorcan Energy Brokers, Equicom and other TMX Group companies provide listing markets, trading markets, clearing facilities, depository services, data products and other services to the global financial community. TMX Group is headquartered in Toronto and operates offices across Canada (Montreal, Calgary and Vancouver), in key U.S. markets (New York, Houston, Boston and Chicago) as well as in London, Beijing and Sydney. For more information about TMX Group, visit our website at www.tmx.com. Follow TMX Group on Twitter at http://twitter.com/tmxgroup.

A French version of this notice is available on our web site at www.tmx.com. Une version française de cet avis est disponible sur notre site Web à l’adresse www.tmx.com.