

Exhibit D - The Automated Trading System

ICE Futures Canada utilizes the ICE Platform and trading systems, which the Commodity Futures Trading Commission (“CFTC”) is familiar with in connection with its oversight of ICE Futures U.S., Inc. as a recognized Designated Contract Market. The ICE Platform is designed to meet the requirements of the *Principles for the Oversight of Screen-Based Trading Systems for Derivative Products* as published by IOSCO.

The response herein will focus on the unique applications and use of the ICE Platform and trading systems by ICE Futures Canada.

Exhibit D-1

A description of (or where appropriate, documentation addressing) the following, separately labeling each description:

- (1) The order matching/trade execution system, including a complete description of all permitted ways in which members or other participants (or their customers) may connect to the trade matching/execution system and the related requirements (for example, authorization agreements).**

The Exchange uses the same infrastructure for the Order Matching and Trade Execution as used by ICE Futures U.S., Inc.

Attachment D-1(1) ICE Exchange Overview 2014 provides an overview of the physical connections associated with the order matching and trade execution system.

There are two components to accessing ICE Futures Canada Contracts on the ICE Platform; physical connection and authorization/permissions. Physical connection deals with the technical operations and connections. Authorization/permissions deals with the rules, agreements and processes required before permission will be granted to activate the physical connection such that the ICE Futures Canada Contracts can be viewed and bids and offers can be entered into the ICE Platform.

Physical connections must be conformance tested and a tri-party agreement completed between the company which owns the front-end system, ICE Futures Canada, and ICE. Copies of these forms of agreements (Independent Software Vendor (“ISV”) Agreement or Direct Access Interface (“DAI”) Agreement), are attached as D-1(5) and D-1(6).

The Exchange offers several ways by which market participants may connect to the ICE Platform:

- WebICE – a secure and accessible proprietary ICE front end available to all market participants via the Internet.
- ICE API – subject to conformance testing performed by the Exchange participants may choose to use one of the ICE Platform APIs to connect via a third-party front end (ISV), a

proprietary front end of the their own (DAI), or to directly connect algorithmic trading systems to the Platform.

- ICE Mobile – access to the Platform via secure “App” on leading mobile platforms.

Companies who use the ICE API and have an ISV Agreement or a DAI Agreement can obtain physical connections via one of the following options:

- ICE Net
- ICE Hub
- Secure Financial Transaction Infrastructure (SFTI)
- ICE CoLo
- through a Managed Service Provider

Further details are provided in Attachment D-1(2) ICE Connectivity Options.

Authorization/Permission

ICE Futures Canada is responsible for authorizing and permissioning access to the ICE Platform and the trading systems. The only category of Participant that is permitted to connect directly to the ICE Platform is a Direct Access Trading Participant (“DATP”). DATPs are permitted to connect directly to the ICE Platform either via a DAI, ISV or via WebICE. The criteria for DATP status includes completion of an Application/Agreement (Attachment A-3(1) to Exhibit A-3) and the appointment of Authorized Representatives who are responsible to oversee the operation of the DATP and ensure that all bids and offers entered into the ICE Platform are in conformance with the Rules.

ICE Platform’s trade execution and order entry system has specific security settings that must be turned on by ICE USER Administration (located at head office in Atlanta) before a DATP can access ICE Futures Canada Contracts. ICE USER Administration will not grant trading rights without receiving written approval from ICE Futures Canada. ICE Futures Canada will not grant approval unless the company has fully executed the DATP application/agreement and has met all attendant requirements.

Access Control

The ICE Information Security group handles all access control requests for administrative access. These requests and authorization are documented and reviewed.

Systems

All systems follow build standards to ensure standardization and security. The Information Security group monitors, assigns, and tracks patch status to respond to vendor operating system or application alerts.

Application Design

Application-layer access controls impose strict restrictions on the data available to individual users. Data storage is physically and logically segmented from application servers, and queries

can only be formed and executed after access control databases have been queried and credentials are fully verified. These processes ensure that users can only retrieve data related to their account.

Testing and Audit

ICE conducts regular internal penetration testing and auditing to determine compliance with written policies and to assess vulnerability. In addition, a third-party external penetration test is performed annually. The results of these tests are used internally to verify internal audit processes and controls.

A rigorous SSAE16 audit is performed annually to produce independent verification and testing of ICE controls for external parties and auditors that rely on ICE. The scope of this report is evaluated each year and tailored in response to customer feedback and business developments. The report is available to requesting participants and covered by the confidentiality provisions of the Participant Agreement. Potential customers not bound by the Participant Agreement must enter into a NDA to receive the report.

User I.D.s and Passwords

Control of User I.D.'s and Passwords are managed by the ICE User Administration team. Employees of ICE Futures Canada cannot access or manage the User I.D.'s of its Participants. ICE Futures Canada has no access to or management of any passwords to User I.D.'s

(2) System Architecture

The architecture of the systems, including hardware and distribution network, as well as any pre- and post-trade risk-management controls that are made available to system users.

ICE Futures Canada uses the same systems architecture and the same pre-trade and post-trade risk management controls as used by ICE Futures U.S., Inc.

In summary, the Exchange offers a state-of -the art hosting center and maintains a disaster recovery site for its technology systems. The Exchange offers access to its electronic markets through a broad range of interfaces including dedicated lines, server co-location data centers, telecommunications hubs in the United States, Europe and Asia, and directly via the Internet.

[REDACTED]

[REDACTED] This network offers market participants an inexpensive, high speed, high-bandwidth solution for routing data between these hub locations and to the primary and secondary data centers.

Companies who use the ICE API and have an ISV Agreement or a DAI Agreement can obtain physical connections via one of the following options:

- ICE Net
- ICE Hub
- Secure Financial Transaction Infrastructure (SFTI)
- ICE CoLo
- through a Managed Service Provider

Attachment D-1(1) ICE Exchange Overview 2014 and Attachment D-1(7) ICE Exchange Architecture provide an overview of the system architecture, physical connections with the order matching and trade execution system. Also see Attachment D-1(8) ICE Network Diagrams.

Pre and Post Trade Management Controls

Pre Trade and Post Trade Management controls for ICE Futures Canada are managed by Clearing Participants through the ICE Clearing Admin System. See Attachment D-1(9) Clearing Admin Screenshot Overview for details of the Clearing Admin Pre and Post Trade Execution system.

The Clearing Admin System allows Clearing Participants to place trading limits, by commodity, on each System Managed Account used in the Order Entry System. This allows Clearing Participants to place separate trading limits for each Exchange product (currently Barley, Canola, Milling Wheat and Durum Wheat), by firm/customer/account. These limits include; Bid Limit, Offer Limit, Long Limit, Short Limit, Absolute Long Limit and Absolute Short Limit.

The Clearing Admin Screen also allows Clearing Participants to view the trades that have been executed by all entities that clear through it during that Trade Day.

(3) The security features of the ICE Platform and Trading Systems.

The security features of the ICE Platform and trading systems include both connectivity security protocols and User I.D.s and passwords. ICE Futures Canada uses the same security features as used by ICE Futures U.S., Inc.

ICE ensures strict security over the ICE Platform and access to the trading systems. A dedicated Information Security Group in Atlanta is responsible for information security operations including; daily reviews, access control requests, incident handling engineering, consultation, design, and implementation of security mechanisms.

Policies

ICE maintains detailed information security policies. All employees receive annual training and testing on all relevant policies.

ICE retains an outside third party to review its security processes on an annual basis. A copy of the latest review is attached as Attachment D-2(2) to Exhibit D-2.

Network Architecture

ICE uses a multi-tiered network architecture with multiple firewall tiers and service silos to isolate different security zones. Intrusion Detection Systems at production and office facilities monitor network traffic against industry-standard and ICE-customized network activity signatures. A copy of ICE IP Address Restrictions Guide is attached as Attachment D-1(14).

Perimeter Defense

External screening routers employ access control lists to terminate virus, worm, and common hacking attempts before they reach external ICE firewalls. Firewalls further parse traffic to ensure only specifically permitted sources can reach specific destinations and services. VPN or private line connections terminate outside external firewalls, but independently from Internet connection points.

Encryption and Data Integrity

128-bit or stronger encryption is used to authenticate and encrypt customer communication to ICE systems. Encryption prevents potential malicious third parties from intercepting sensitive data and credentials in transmission. The controls inherent to SSL and TCP provide additional integrity to ensure content is not tampered with by a third-party during transmission.

(4) The length of time such systems have been operating.

ICE Futures Canada has been using the ICE Platform and related systems since December 2007. The ICE Platform has been operating since 2000.

(5) Any significant system failures or interruptions.

ICE Futures Canada began utilizing the ICE Platform in December 2007. The ICE Platform has had better than 99.9% availability over the last 10 years.

[REDACTED]

[REDACTED]

(6) The nature of any technical review of the order matching/trade execution system performed by ICE Futures Canada, the home country regulator, or a third party.

Technical Review

Neither ICE Futures Canada nor the MSC performs a technical review of the ICE Platform and related systems. ICE Futures Canada and the MSC rely upon the testing and overviews that are conducted by ICE and by regulators in the United States and the United Kingdom.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(7) Trading Hours.

ICE Futures Canada's trading hours, for all products, is from 7:00 pm CT (previous day) to 1:15 pm CT each Trade Date. There is a half hour pre-open period each Trade Date from 6:30 – 7:00 pm.

ICE Futures Canada publishes its trading holiday schedule on the website;
<https://www.theice.com/marketdata/calendar/CalendarView.shtml?calendar=Holiday&markets=ICE Futures Canada>

(8) Types and duration of orders accepted.

A full description of the orders permitted for ICE Futures Canada Contracts for submission to the ICE Platform are set out in Rule 8, located in Attachment A-6(2) to Exhibit A-6.

8B.06 Orders

- a. An order entered into the Trading System shall be in one of the following order types:
- (1) "Market orders" – Market orders are executed at the best price or prices available in the order book at the time the order is received by the Trading System until the order has been filled in its entirety. However, a market order will not trade outside of the No-Cancellation Range, as defined in the Error Trade Policy. Any residual volume from an incomplete market order is cancelled. Market orders are rejected if the market is not open.
 - (2) "Limit orders" – Limit orders are orders to buy or sell a stated quantity at a specified price, or at a better price, if obtainable. Unless otherwise specified, any residual volume from an incomplete limit order is retained in the central order book until the end of the day unless it is withdrawn or executed.
 - (3) "Stop Limit orders" – Stop limit orders are placed below the market in the case of a selling order, or above the market in the case of a buying order. Note there may also be stop-limit functionality in front-end systems which may operate differently than set out below.
 - i. Stop limit orders have two price parameters; the trigger price, and the limit price. A user may specify the two prices separately, or may enter

only the trigger price in which case the Trading System will automatically generate a limit price at the maximum permissible price differential.

- ii. The maximum price differential of the trigger price and the limit price is the No Cancellation Range (“NCR”) for that contract. See the Error Trade Policy for more information on NCRs.
- iii. Stop limit orders remain inactive until a trade occurs in the market at the trigger price (or better).
- iv. Once a stop limit order is triggered, it then becomes a limit order at the limit price.

Notwithstanding the above, in the event of an IPL Hold, the Trading System will temporarily reset the limit price of Stop Orders that are elected to the Interval Price Limit, while the IPL Hold condition exists. At the end of the IPL Hold period, the limit price on any remaining volume will be restored to its original value.

- (4) “Stop Orders with Protection” – A Stop Order with Protection operates in the same manner as a Stop Limit order, but has a limit price set by the Trading System. The limit price is the NCR differential for that contract from the stated stop price. When a trade has occurred in the Trading System at or through the stop price, the order becomes executable and enters the market as a Limit order at the system-set limit price. The order will be executed at all price levels from the stop price up to and including the limit price. If the order is not fully executed, the remaining quantity of the order will remain active in the Trading System at the limit price

Notwithstanding the above, in the event of an IPL Hold, the Trading System will temporarily reset the limit price of Stop Orders that are elected to the Interval Price Limit, while the IPL Hold condition exists. At the end of the IPL Hold period, the limit price on any remaining volume will be restored to its original value

- b. An order entered into the Trading System may also contain one of the following functionalities:

- (1) “Reserve Quantity orders” (also known as “Iceberg”) - An order entered into the Trading System may specify a maximum disclosure volume to be shown to the market, enabling the order to be released gradually without revealing the full size. The unrevealed part of the order is released only when the first part of such order is completely filled. When each portion of the order is released, it is placed in its entirety at the end of the order priority queue.
- (2) “Good After Logout orders” – Good After Logout (“GAL”) orders remain in the Trading System market even after the trader has logged out or the connection to the Trading System platform is lost. However, all orders, including GAL orders, will be deleted when the system closes at the end of the trading session.
- (3) “Fill And Kill orders” – Fill And Kill orders execute whatever volume is available in the system at the specified price, and cancel any unfilled volume.

- (4) Fill Or Kill orders” – Fill Or Kill orders will return unable unless the entire volume is immediately executable in the system at the specified price.
 - (5) “Good ‘Til Cancelled orders” – Good ‘Til Cancelled (“GTC”) orders remain in the trading system until such time as they are cancelled or filled in their entirety. GTC orders retain their priority in the matching engine based on the date and time they were entered.
- c. The orders noted above describe ICE Platform functionality only. Other order types including, but not limited to, Stop Market, Opening, and Market On Close, may be taken by brokers from their clients in accordance with applicable rules.

9) Information that must be included on orders.

The ICE Platform requires certain minimum information to be included on an order, for it to be accepted for submission. The required information is;

Submitting entity and firm – clearing firm, direct-access firm (if different) and login ID must be on each order, and are required to login to the ICE Platform. In addition, information regarding the unique trader (FIX Tag 116 – Authorized Trader ID) and other related identifying information must be provided.¹ In most situations, these fields are associated with the trader executing the order, and are automatically populated by the front-end trading system. (Rule 8 Appendix C)

Account information – CTI code and House/Customer indicator are mandatory, while the account number is either a text field entered manually by the trader, or an automatically-populated value selected from a pre-defined list of approved accounts for that trader. Accounts often have a CTI code and House/Customer indicator associated with them by default.

Product information – Commodity, contract month/year or spread, strike price (where applicable), and call/put (where applicable) must all be on an order, and are typically populated when the trader selects the product from a pre-defined list/screen or when they click to hit an existing bid/offer.

Order specifications – Orders must be one of the acceptable types, as noted in section 8 above, and thereby must contain specifications such as price (or “market”); quantity; stop price (where applicable); duration (day; GTC), and other attributes that dictate order execution parameters.

Time stamp – each order action in the ICE Platform (submission; revision; withdrawal; execution; cancellation) is time-stamped by the Trading System itself, to the millisecond. Traders do not need to, nor can they, update or alter these time stamps.

In addition, Rule 8B.14 requires that traders generate a separate time-stamped order record, specifying the order details (including any discretion granted), unless the order is immediately entered into the ICE Platform and contains all the information required in Rule 8B.14.

¹ See ICE API notice:

https://www.theice.com/publicdocs/futures_canada/member_notices/May_6_2008_API_notice_re_FIX_tags.pdf and
https://www.theice.com/publicdocs/futures_canada/member_notices/Jan_11_2010_Rule_8_changes_re_FIX_tags.pdf

Traders are obligated to retain order information for seven (7) years, and the electronic order information in the ICE Platform is also retained for seven years.

(10) Trade Confirmation and Error Trade Procedures.

Trade Confirmation messages are immediately sent to the originating order entry system(s) when an order is matched. Trade Confirmation messages contain details about the size and price of the matched trade. See Attachment D-1(10) Software Flow Diagrams for a complete description of the Trade Confirmation Message flow.

The Error Trade Policy of ICE Futures Canada is found in Attachment A-6(2) to Exhibit A-6 (Rule 8 Trading, Appendix A). Alleged errors are reviewed based solely on price aberrations. Errors in quantity, which are executed at market value, are not subject to revision. When an error is alleged, the primary evaluation is whether the trade occurred at or near the market price at that point in time. Only trades which deviate substantially from market value are considered for adjustment or cancellation. ICE Futures Canada has defined No Cancellation Ranges (“NCRs”) for all futures and options contracts, and trades inside the NCR are not normally eligible for consideration as an error.

Trades outside the defined NCRs may be considered for price adjustment or cancellation. Adjustment is typically favored over cancellation, in particular with regard to options.

In making the decision as to whether a trade stands or is adjusted/cancelled, the Exchange considers a variety of factors, including: the time elapsed between the trade and the allegation of an error; the presence or absence of consequential trades (such as spread legs); the number of ticks outside the NCR of the alleged error; and, in the case of options, the theoretical value of the option in question and other similar options trading at or around the same time. The Rules provide the Exchange with absolute authority to make a final determination on any alleged error.

(11) Anonymity of Participants

Participant bids and offers remain anonymous throughout all processes, including after a trade is matched.

(12) Trading system connectivity with clearing system.

This is covered in more detail at Exhibit D-1 - Supplement S-1 (Clearing).

The ICE Platform and trading systems connect to the ICE Clearing System (ECS- Extensible Clearing System). Matched trades are sent real-time to the ICE Clearing System. The Order/Trade records and the Cleared Trade records are stored on secure servers maintained by ICE, Inc.

See Attachment D-1(11) for details on the ICE clearing connections.

(13) Response Time

The ICE Platform offers one of the world's most rapid trade execution response time of any electronic trading system, while maintaining efficiency and security. The current response time for all contracts listed for trading on the ICE Platform is sub-1 millisecond. (<https://www.theice.com/ice-platform>)



(14) Ability to determine depth of market.

The ICE order entry and trade execution system provides full depth of market in its order book. The full order book is available to all ISV's and Quote Vendors.

The ICE iMPact data feed is the primary API for market data dissemination. ICE offers ISV customers both a TCP and Multicast price feed that supports both outright and full implied pricing for some markets.

(15) Market continuity provisions.

ICE and ICE Futures Canada have developed a comprehensive Business Continuity Plan ("BCP") focusing on the continuity of key business processes following an unplanned interruption. The BCP can be found in Attachment D-1(12).

The Exchange's BCP program is part of, and coordinated with, the wider ICE BCP, through review and consultation with ICE's head office in Atlanta.

The Disaster Recovery Strategy employed by ICE is a warm site strategy. [Redacted]
[Redacted]
[Redacted]
[Redacted]

The recovery site is a mirror image of the ORD site. Operating system, database and some application software will be up and running (in idle state) at the recovery location. The recovery system is transaction updated by the production system using file transfers and database to database replication.

[REDACTED]

A coordinated disaster recovery exercise is conducted annually with Clearing Participants, Participants and ICE. These events allow full stream processing of test data to allow external parties to test their systems and identify potential conflicts in disaster recovery strategy.

ICE maintains detailed procedures, and other related necessary documentation, to implement disaster recovery steps such as:

- restoration of databases at the recovery site, using the replicated transaction logs
- system and network testing and verification
- rerouting data traffic to the alternate site
- making the system available to the customers

The Disaster Recovery Plan objectives include:

- defining the recovery time frame required and the strategy and procedures planned to facilitate the recovery.
- identifying application recovery procedures for each application's software and data in the event of a disaster.
- identifying all the application's critical data prior to a disaster.
- furnishing contact information to those responsible for recovery of the application.
- identifying the resources required to recover and operate the application.
- identifying any particular security requirements.
- identifying required application reference information consisting of application locations, internal and external interfaces, and application description.
- identifying critical personnel for recovery teams.

All trading data is backed up to prevent loss of data.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(16) Reporting and recordkeeping requirements

ICE Futures Canada maintains all records for a period of 7 years, as required by the MSC.

See Attachment D-1(13) - ICE Document Retention Policy.

Exhibit D-2

A description of the manner in which the foreign board of trade assures the following with respect to the trading system, separately labeling each description:

(1) Algorithm. The trade matching algorithm matches trades fairly and timely.

The ICE Platform utilizes the same trade matching algorithm for all contracts traded on ICE Group futures exchanges. The trading server will match orders on the basis of a price and time priority algorithm. The algorithm is a first-in first-out system that matches orders in a strict time sequence (“**FIFO Algorithm**”). The “oldest” order in the system at any time has the highest priority and is filled prior to any subsequently placed orders. Once a standing order is completely filled, the remaining orders will be filled based upon the time of entry of the order, in accordance with the FIFO Algorithm. This means that the “best” price will always have the highest order priority, for buy orders that means those orders that have the highest price and for sell orders that means those orders that have the lowest price. If more than one order is in the market at a specific price then the trading server will give the highest priority to the order that arrived at the trading server first.

ICE Futures Canada uses the Price/Time FIFO Algorithm. Rule 8A.01 (Attachment A-6(2)) states:

8A.01 Determination of Contract Matters

Unless otherwise set out in the specific contract rule, the following rules apply to all contracts;

- c) Orders shall be matched on a First-In-First-Out basis at a given price level.

The FIFO matching algorithm is widely used and accepted in the derivatives industry, and matches trades in an equitable manner for all market participants. As noted in Exhibit D-1, the ICE Platform has one of the fastest and most efficient matching engines in the derivatives industry, with an average response time of less than 1 millisecond. This ensures that market participants are not unduly slowed by the trading system in their efforts to submit orders and execute trades.

- (2) **IOSCO Principles.** The trading system complies with the Principles for the Oversight of Screen-Based Trading Systems for Derivative Products developed by the Technical Committee of the International Organization of Securities Commissions (IOSCO Principles). Provide a copy of any independent certification received or self-certification performed and identify any system deficiencies with respect to the IOSCO Principles.

ICE Futures Canada uses the ICE Platform and trading systems utilized by the other ICE, Inc. exchanges, including ICE Futures U.S., Inc. The ICE Platform has been reviewed and complies with the *Principles for the Oversight of Screen-Based Trading Systems for Derivative Products* developed by the Technical Committee of the International Organization of Securities Commissions (“IOSCO”). We believe this is confirmed by the CFTC’s most recent exam of the ICE Platform against these IOSCO Principles (among others).

The MSC is not a member of IOSCO and has not evaluated the ICE Platform against the *Principles for the Oversight of Screen-Based Trading Systems for Derivative Products*. However, the MSC does generally utilize the IOSCO publications for guidance, and in granting non-disapproval to ICE Futures Canada when it transitioned its electronic trading system to the ICE Platform in December 2004, the MSC did rely upon the fact that the ICE Platform had been assessed against the *Principles for the Oversight of Screen-Based Trading Systems for Derivative Products* by the CFTC and the FCA, both of which are internationally recognized regulators and members of ISOCO.

(3) **Audit Trail**

- (i) **The audit trail timely captures all relevant data, including changes to orders.**
- (ii) **Audit trail data is securely maintained and available for an adequate time period.**

All information regarding activity in the ICE Platform (the “Data”) is captured and stored in a central database. The Data includes login/logout information for traders as well as company administrators; order entry, revisions, and cancellations; and trade information. The Data is accessible through a variety of applications, including ICEcap and SMARTS®. Both of these systems are described in further detail in Exhibit G-2, along with information on the specific order and trade data captured for these applications.

[REDACTED]

The SMARTS® and ICEcap applications, and the associated data stores, are maintained within the secure ICE internal network.

- (4) **Public Data.** Adequate and appropriate trade data is available to users and the public.

ICE Futures Canada uses the same data dissemination network as the other ICE exchanges. It is managed and administered by an affiliated company in the U.K., ICE Data, LLP pursuant to a License Agreement dated August 22, 2008 (Attachment D-2(1)).

ICE Futures Canada publishes and disseminates an extensive range of trade data and market data, including real-time quotes, the Daily Market Report, contract record data, and historical end-of-day and tick value. Depending on the data, it is available generally to the public on the website or via subscription services. Subscription services are available from quote vendor companies or from WebICE, an internet based application. Further details can be found at <https://www.theice.com/market-data>

In addition, the Exchange provides a number of publicly-available reports on its website pertaining to volume, trade price and open interest. These are available in the Report Center (<https://www.theice.com/marketdata/reports/ReportCenter.shtml>).

ICE Futures Canada provides a number of data files which are accessible at no cost and which may be downloaded by the general public by using the Daily Download menu item from the Report Center. These files include, futures volume and open interest ("VOI") on a historical basis, options volume and open interest on a historical basis, futures daily settlement prices file, options daily settlement prices file, futures price and VOI file and options price and VOI file.

(5) Reliability. The trading system has demonstrated reliability.

The ICE Platform and trading systems have demonstrated reliability. Since ICE Futures Canada commenced utilizing the ICE Platform and Trading Systems in December 2007, there have been no significant issues with the Trading System.

Information on the ICE Platform is available on the ICE website at <https://www.theice.com/technology-and-services>. That information evidences that it is a highly reliable and robust electronic trading platform.

(6) Secure Access. Access to the trading system is secure and protected.

ICE employs a multi-layered approach to ensuring that access to the ICE Platform and trading systems is secure and protected.

The ICE Information Security group handles all access control requests for administrative access. These requests and authorization are documented and reviewed.

Policies

ICE maintains detailed information security policies. All employees are required to read and sign acknowledgement of relevant policies. Topics covered range from ICE's corporate security philosophy and information classification to application development standards and password handling. A dedicated team of employees, the Information Security Group, is responsible for all information security operations including; daily reviews, access control requests, incident handling engineering, consultation, design, and implementation of security mechanisms.

Network Architecture

[REDACTED]

Perimeter Defense

[REDACTED]

Encryption and Data Integrity

128-bit or stronger encryption is used to authenticate and encrypt customer communication to ICE systems. Encryption prevents potential malicious third parties from intercepting sensitive data and credentials in transmission. The controls inherent to SSL and TCP provide additional integrity to ensure content is not tampered with by a third-party during transmission.

Systems

All systems follow build standards to ensure standardization and security. The Information Security group monitors, assigns, and tracks patch status to respond to vendor operating system or application alerts.

Application Design

Application-layer access controls impose strict restrictions on the data available to individual users. Data storage is physically and logically segmented from application servers, and queries can only be formed and executed after access control databases have been queried and credentials are fully verified. These processes ensure that users retrieve data only related to their account.

(7) Emergency Provisions. There are adequate provisions for emergency operations and disaster recovery.

ICE and ICE Futures Canada have developed a comprehensive Business Continuity Plan ("BCP") focusing on the continuity of key business processes following an unplanned interruption. The BCP can be found in Attachment D-1(12) to Exhibit D-1.

The Exchange's BCP program is coordinated with the wider ICE BCP, through review and consultation with ICE's head office in Atlanta.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

ICE maintains detailed procedures, and other necessary documentation, to implement disaster recovery steps such as:

- Restoration of databases at the recovery site, using the replicated transaction logs
- System and network testing and verification
- Rerouting data traffic to the alternate site
- Making the system available to the customers

The objectives of the Trading Systems Disaster Recovery plan include;

- defining the recovery time frame required and the strategy and procedures planned to facilitate the recovery.
- identifying application recovery procedures for each application's software and data in the event of a disaster.
- identifying all the application's critical data prior to a disaster.
- furnishing contact information to those responsible for recovery of the application.
- identifying the resources required to recover and operate the application.
- identifying any particular security requirements.
- identifying required application reference information consisting of application locations, internal and external interfaces, and application description.
- identifying critical personnel for recovery teams.

(8) Data Loss Prevention

All trading data is backed up to prevent loss of data. [REDACTED]

[REDACTED]

In addition to data backup, ICE also maintains a Disaster Recovery Strategy to ensure there is no data loss during the trading day, as noted in section 7 (Emergency Provisions) above.

(9) Contracts Available. Mechanisms are available to ensure that only those futures, option or swap contracts that have been identified to the Commission as part of the application or permitted to be made available for trading by direct access pursuant to the procedures set forth in § 48.10 are made available for trading by direct access.

ICE has detailed processes for the listing of new contracts on the ICE Platform. Extensive testing is required prior to any product being moved to the production system. In order for a new product to even be tested in the API environment, ICE must be provided with evidence that a Participant Notice has been sent out to all Participants.

Before any new contract would be tested in the API test environment, it must be approved by the Board, and by the MSC (see Exhibit F). Part of this review necessitates reporting by the Vice President of Market Regulation that all necessary regulatory approvals have been completed, which includes providing full details to the CFTC.

(10) Predominance of the Centralized Market. Mechanisms are available that ensure a competitive, open, and efficient market and mechanism for executing transactions.

ICE Futures Canada operates solely on the ICE Platform. All orders submitted for execution in the ICE Platform are displayed (anonymously) in the electronic order book; and all Members with the appropriate trading permissions are able to execute against the orders in the electronic order book.

The ICE Platform provides fully transparent trading. Full market depth is transmitted, with associated aggregated volume at each price level. The system also calculates, and transmits, information regarding previous trades (price and volume), daily high/low, previous settlement price, and change-from-settlement values. The central marketplace is the dominant mechanism by which trades are executed at ICE Futures Canada.

ICE Futures Canada ensures a competitive, open, and efficient market through the following;

a) ICE Platform

The ICE Platform is the sole forum for trading. It is open to any entity that meets the requirements of Participant status or trades as a client through an FCM. All bids and offers are submitted on an anonymous basis with full market depth displayed.

b) Rules

The rules of ICE Futures Canada provide prohibition against anti-competitive practices. Pre-arranged trading is forbidden, and pre-execution communication is only permitted for options, and only within specific circumstances (Rule 8A.09). Block trades are not permitted at this time.

There are limited exceptions to the requirement to post all bids and offers into the ICE Platform. These transactions are input into supporting Trading Systems, and include Exchange for Physicals (“EFPs”), Exchange for Swaps (“EFSs”), Exchange of Options (“EOOs”), and Negotiated Option Strategies (“NOS”).

These off-exchange transactions are permitted, on a limited basis, under ICE Futures Canada Rule 8C (Attachment A-6(2) to Exhibit A-6). Each of these transactions operates under strict parameters, including the existence of a bona fide underlying grain contract (EFP), or underlying Over-the-counter (“OTC”)/swap transaction (EFS/EOO), or minimum quantity in an eligible strategy (NOS). The Regulatory Division regularly conducts spot-checks on off-exchange transactions, to ensure they meet the prescribed criteria.

The only other transactions that are not competitively traded are give-ups of same-day trades (Rule 8C.05), and transfers of existing positions (Rule 8C.08), both of which do not create new positions in the market. Futures deliveries and option exercises also occur, on existing futures and options positions.

How the ICE Market Works - publication

How the ICE Market Works is a high level document that describes various aspects of trading ICE Futures U.S., ICE Futures Europe, ICE Futures Canada and ICE Futures Singapore. This publication is attached as Attachment D-1(15) to Exhibit D1.

Areas such as Participant status, Technology, Risk Management, Market Making, Clearing, Testing, Conformance, Network Connectivity and Trading Rules are included for all four exchanges in this single document.

The Trading Platform is covered in particular detail. Topics in this section include API Connectivity, Reconciliation Tools, User IDs, Throttling, Trading Sessions, Trading Algorithms, Implied Trading, Order Types, off-order book Trade Submission, Strategies, Price Protection and Self-Trade Prevention Functionality.