

## **Exhibit D-(Supplement S-1 Clearing) – Settlement and Clearing**

### **Exhibit D-1 (Supplement S-1 Clearing)**

**A description of the clearing and settlement systems, including, but not limited to, the manner in which such systems interface with ICE Futures Canada's trading system and its members and other participants.**

#### Introduction

ICE Futures Canada provides for the timely discharge of the rights and liabilities of the parties to transactions effected on its Trading Systems through its oversight of and reliance upon its designated Clearinghouse, ICE Clear Canada and the Rules, policies and procedures of ICE Clear Canada. All ICE Futures Canada Contracts are settled and cleared by ICE Clear Canada. ICE Futures Canada does not have any links or attachments with any other settlement facilities.

Section 15(2) of *The Commodity Futures Act* C.C.S.M. c. C152 ("CFA") requires, as a condition for registration of a commodity futures exchange, that:

- (a) **the clearing arrangements and financial condition of the exchange, its clearing house and members provide reasonable assurance that all obligations arising out of contracts entered into on the exchange will be met;**
- (b) **the internal regulations of the exchange that govern its members and members of its clearing house are in the public interest and are actively enforced;**

ICE Futures Canada offers its trading facilities solely on the ICE Platform, with the exception of certain "ex-pit" transactions, known as "Ancillary Transactions and Processes" (Rule 8, Part C).<sup>1</sup> Rule 8C.01 sets out the transactions types that are executed and entered into supporting trading systems of ICE, such as ICE Block and PTMS. Ancillary Transactions and Processes include:

- 1) Exchange for Physical;
- 2) Exchange for Swap;
- 3) Exchange of Options for Options;
- 4) Give-ups;
- 5) Negotiated Options Strategies; and
- 6) Position Transfers.

All transaction types other than Ancillary Transactions and Processes must be effectuated through the ICE Platform.

The Clearing System used to clear and settle ICE Futures Canada contracts is owned and operated by ICE and licensed to ICE Clear Canada pursuant to a Clearing Services agreement (See Attachment A-3(2) to Exhibit A-3).

#### Clearing System Description

The Clearing System provides trade management and processing, manages collateral deposits and cash payments for settlement, and manages calculations and payments for intraday margin

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<sup>1</sup> ICE Futures Canada closed its trading floor in December 2004.  
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calls. The Clearing System operates in conjunction with the Rules of ICE Clear Canada to ensure that settlements are certain, final and irrevocable.

All trades cleared by the Clearing System are received from the ICE Platform and trading system. The Clearing System consists of the following component applications:

1. Extensible Clearing System (ECS): manages positions, collateral, and settlement payments.
2. Post Trade Management System (PTMS): used to manage trades and position transfers.
3. Allocation and Claim Transaction System (ACT): used to allocate and claim give-ups.
4. Managed File Transfer (MFT): used to download reports and data files, and to upload data files.
5. Dino: manages futures deliveries.
6. Risk: monitors risk intraday and calculates intraday margin calls.

The component applications interact with each other to complete all aspects of the clearing process.

1. ECS: Management of Positions, Collateral, and Banking

The Extensible Clearing System (ECS) is the primary clearing system component. It is used to settle trades, including calculation of daily settlement payments, and is used to communicate and settle intraday margin calls.

Clearing Participants access ECS to manage positions, cash and collateral.

Each Trade Date, Clearing Participants must provide updated gross long and short positions in each series of futures and options held in their Customer accounts. This position information reflects all of the individual positions held for all customers. Positions for Clearing Participants' House accounts are automatically maintained as net long or short for each series of futures and options. Position information may be entered directly into the ECS user interface and may also be reported by submitting a data file to the MFT server.

ECS receives all trade and transfer transactions from PTMS and ACT, and settles those transactions.

ECS also settles options exercise transactions and the positions and trades resulting from those exercises. On days other than an options expiry day, Clearing Participants exercise options on futures by entering the exercise instruction into the ECS interface. On an options expiry day, ECS will automatically exercise options, subject to the contract rules set by ICE Futures Canada.

Futures delivery transactions are received by ECS from the Dino system and ECS uses those transactions to close and settle the futures positions being delivered.

ECS displays current positions to Clearing Participants intraday reflecting all trades processed.

Clearing Participants enter deposit and withdrawal requests for cash and collateral into the banking interface in ECS. ICE Clear Canada staff then process those transactions according to procedures.

ECS displays current margin requirements to Clearing Participants intraday, reflecting intraday margin calls received from the Risk application.

ECS displays current cash and collateral balances to Clearing Participants intraday, reflecting intraday deposits and withdrawals.

Clearing Participants enter and maintain email addresses for various types of notifications in ECS. ECS sends notification to these email addresses advising of certain important information, including settlement payments, collateral transactions, data file submission errors, and completion of end of day processing.

## 2. TMS: Trade Management and Position Transfers

The Clearing System receives trades in real time from the Trading System via real time messaging.

Trade management is provided through the Post Trade Management System (PTMS) and the Allocation and Claim Transaction System (ACT).

The PTMS and ACT systems operate together to facilitate trade allocation and position transfers. Users with trade management permissions are provided with access to both PTMS and ACT.

PTMS allows Clearing Participants to review all trade activities and reconcile these activities to their middle or back office systems. This application also allows for trades to be assigned and transferred to accounts, provides for the review and allowance of position transfers from and to other Clearing Participants, creates trade allocation adjustments, and prepares trades for give-ups, including average price give-ups, which are forwarded to ACT for further processing.

Clearing Participants may access PTMS and ACT manually through an online user interface or in an automated manner through secure two-way real time messaging (MQ) using ICE's FIXML messaging specification. Through MQ, PTMS and ACT receives and automatically processes trade allocation instructions from a Clearing Participant, and sends messages to the Clearing Participant for each new transaction or modification, allowing the Clearing Participant to automatically update its account records.

Transactions that are completed in PTMS and ACT are sent via real time messaging to ECS for processing and for Clearing Participant position updates, and to Risk for intraday risk monitoring and margin call calculations.

In addition, PTMS permits ICE system administrators to send alert messages to users to notify of important events including deadlines.

## 3. ACT: Allocate and Claim Give-ups

The Allocation and Claim Transaction System (ACT) provides give-up processing, including the allocation of give-ups, claiming single or multiple transactions into a single account, rejecting allocations, and, within the confines of the Rules of ICE Futures Canada and ICE Clear Canada, modifying or correcting give-up transactions.

#### 4. MFT: Reports and Data Access

Reports and data access is provided through the Managed File Transfer (MFT) server via secure FTP.

MFT access allows Clearing Participants to manually or automatically retrieve data files and reports and/or submit data files.

Clearing Participants may retrieve reports and data detailing all trading activity, all financial transactions, and all requirements for money payments or collateral deposits.

Clearing Participants may submit position data in a specified data file format to specific directories. Data files may be submitted to report position changes and final end of day positions (PCS), to report Customer positions for Gross Customer Margin (GCM) calculations, and to report long position dates for first-in-first-out (FIFO) assignment of futures deliveries. A data file format specification is provided to Clearing Participants for each type of data file submission.

Clearing Participants may not modify any existing data including data they have submitted. Any data submitted in error cannot be replaced or deleted by the Clearing Participant and must be updated by providing a new submission.

End of day reports and data files are sent to MFT from ECS during end of day processing. Other reports and data files are sent to MFT intraday by ECS, PTMS and ACT.

ECS retrieves and processes position data files that are submitted to MFT, and uses the information in those files to update Clearing Participant positions.

#### 5. Dino: Deliveries

The Dino system is used to assign futures deliveries.

Dino imports and compiles long position dates from the FIFO data files that Clearing Participants submit to MFT. ICE Clear Canada staff use the FIFO data to assign deliveries and then input the delivery assignment information into Dino.

Dino submits the delivery assignment information to ECS in a data file, and ECS uses that information to close out and settle the futures positions being delivered.

#### 6. Risk Application

The Risk application is used to monitor Clearing Participants' positions intraday and to calculate intraday margin calls on those positions.

Risk receives cash, collateral, position and price data at the end of each day from the main Clearing System database.

Risk receives complete trade information via real time messaging from PTMS and ACT. Risk receives the same trade information that is received by the primary settlement application (ECS). Intraday trade information is combined with prior end of day position information to assess initial margin intraday. Intraday margin calls for initial margin may be issued, according to ICE Clear Canada's Intraday Margin Policy, when initial margin increases.

Risk receives current contract prices via real time messaging from the Trading System. Intraday variation losses or gains are assessed using prior end of day positions, current day trades, and price changes. Intraday margin calls for variation margin may be issued, according to ICE Clear Canada's Intraday Margin Policy, when variation margin losses exceed a set threshold.

Risk receives intraday cash and collateral deposit and withdrawal transactions via real time messaging from ECS. Risk uses these transactions to update total collateral values for calculation of intraday margin calls.

The intraday margin call functionality is programmed to trigger intraday margin calls based on the parameters set out in ICE Clear Canada's Intraday Margin Policy.

Risk transmits the intraday margin call instructions to ECS, and ECS is then used to initiate settlement of the intraday margin calls.

#### Access to Clearing System and ICE Platform

Only Clearing Participants of ICE Clear Canada have access to the Clearing System to perform functions related to clearing and settlement.

Clearing Participants are provided with access to four Clearing System component applications: ECS, PTMS, ACT, and MFT.

Clearing Participant users are provided permissions separately for each application, based on each user's role within their organization. Users require a user ID and password to access all applications. In addition, access to ECS, PTMS, and ACT is restricted by an IP address "white list." Clearing Participants must register their IP addresses and applications may be accessed only from a registered IP address. The IP address white list provides a second level of security for these applications.

Clearing Participants do not have access to the Risk application or the Dino application.

Trading permissions, Clearing Participant permissions and clearing relationships for the Exchange's markets are specified in the ICE Platform (or the "Trading System"). Approved Clearing Participants are registered in the ICE Platform on written instructions from ICE Clear Canada, enabling FCM Clearing Participants to provide access to the ICE Platform for their approved customers.

#### Electronic Interface between Clearing System and the ICE Platform

The electronic interface between the Clearing System and the ICE Platform is one-way only, from the Trading System to the Clearing System.

The ICE Platform provides the Clearing System with the following data through secure file transfer protocol (SFTP) and/or real time messaging:

- Products eligible for trading, or "valid series": provided daily in advance of the start of each trading session.
- Matched Trades: provided during the trading session via real time messaging.
- Settlement Prices: provided once daily after the end of each trading session.

- Intraday trade prices: provided via real time messaging for computing intraday margin calls.

### Clearing System Setup and Maintenance

ICE Clear Canada staff, and/or ICE staff acting on written instruction from ICE Clear Canada, perform system setup and maintenance tasks, including:

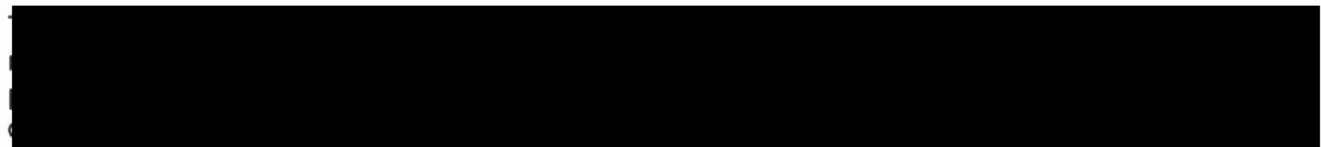
- Definition and setup of products eligible for clearing;
- Setup of eligible Clearing Participants;
- Setup of Clearing Participant users, including user IDs and passwords;
- Maintenance of the list of eligible margin collateral;
- Maintenance of collateral haircuts; and
- Maintenance of margin parameters.

Once each Trade Date, before the start of each trading session, the Clearing System receives from the ICE Platform a message listing the valid series (futures months, options months and options strike prices) for all products listed for clearing. The valid series are loaded into the clearing system and then used to verify the validity of all incoming trades. Additionally, new options strike prices may be added to the valid series intraday via receipt of an instruction from the Trading System using real time messaging.

The Clearing System receives from its selected data provider a file containing a list of valid government security issues on the morning of each day, and a separate file containing prices for those securities in the afternoon of each day. The prices are then used to value the securities.

### End of Day Processing

Following the close of trading each day, the Clearing System receives from the ICE Platform a message containing settlement prices for each valid series. The settlement prices are loaded into the clearing system.



Collateral prices are received in a data file from ICE Clear Canada's selected collateral price data provider.

After 6:00 pm Central Time, the Clearing System is closed to Clearing Participants to prevent any further modifications, and end-of-day processing is performed. Calculations are performed separately for each Clearing Participant's Customer and House positions and trades.

During the end-of-day processing, the Clearing System completes the following;

- Updates positions in each series;
- Calculates variation payments (mark-to-market) on futures contracts;
- Calculates premium payments on options trades;
- Calculates margin collateral required on open positions;
- Re-values collateral using market prices and published haircuts; and

- Calculates the total payments to be made from (or to) each Clearing Participant.

Positions in each series are recalculated using trade data and the PCS and/or GCM data files submitted to the MFT server, and are later used to determine required margins.

Futures contracts are marked-to-market daily and the amount of any gains (or losses) are paid to (or collected from) each Clearing Participant.

Premiums from same-day sells (or buys) of premium-style options are paid to (or collected from) each Clearing Participant.

Margin requirements are calculated based on the method specific to each type of Clearing Participant position account. House accounts are margined based on the net position in the account. Customer accounts are margined based on the position of each customer, using ICE's Gross Customer Margin specification. The Clearing System then compares the amount of margin required to the value of margin collateral on deposit to determine if additional margin collateral must be collected from the Clearing Participant.

The Clearing System combines all the payments to determine the total net amount to be paid to, or collected from, each of the the Customer account and the House account of each Clearing Participant, and provides those amounts to the SWIFT gateway and in a report to ICE Clear Canada for processing and payment or collection.

The Clearing System then automatically sends an email to each Clearing Participant, advising of the amount owing to the Clearinghouse or the amount due to be paid to the Clearing Participant for each of the Customer and House accounts.

The Clearing System then produces reports and data files for each Clearing Participant detailing all transactions occurring that day (trades, transfers, give-ups, futures deliveries, option exercises, collateral deposits and withdrawals), end of day positions, margin requirements, and the net amount that will be paid to, or collected from, the Clearing Participant's Customer account and House account. These reports are placed in the Clearing Participant's folder on the MFT server.

#### Daily Settlement

Following end of day processing on each Trade Date, the Clearing System sends an automated email to each Clearing Participant advising of the availability of reports and the amount of any settlement payments to be paid to the Clearinghouse or due to be received from the Clearinghouse.

All cash payments are transferred between the Clearing Participants' banks and ICE Clear Canada's bank through the Large Value Transfer System ("LVTS"). The LVTS is operated by the Canadian Payments Association. Its operation is overseen by, and payments are guaranteed by, the Bank of Canada. (See more at Exhibit D-3).

Payments from Clearing Participants to the Clearinghouse are initiated manually by the Clearing Participants. The daily pay/collect is run overnight and amounts owed by Clearing Participants to ICE Clear Canada are due the morning following Trade Date by 9:30 am Central Time. Payments

from the Clearinghouse to Clearing Participants are initiated manually by ICE Clear Canada and are released to Clearing Participants after 9:30 am.

#### Intraday Margin Call Settlement

When an intraday margin call is made to one or more Clearing Participants, an intraday settlement run is completed in ECS. This process does not interrupt trade processing and does not affect Clearing Participant interaction with the Clearing Systems.

The intraday settlement compares cash and collateral on deposit against the total updated margin requirement, including the intraday margin all amount, and determines if an additional payment is due to cover the margin requirements.

When an additional payment is due, an automated email is sent to the Clearing Participant, advising of the amount due and the time by which the payment must be received by the Clearinghouse.

As with daily settlement payments, the payments for an intraday margin call from Clearing Participants to the Clearinghouse are initiated manually by the Clearing Participants, and the payments are transferred between the Clearing Participants' banks and ICE Clear Canada's bank through the Large Value Transfer System ("LVTS").

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## Exhibit D-2 (Supplement S-1 Clearing)

A certification, signed by the chief executive officer (or functional equivalent) of ICE Clear Canada, Inc., that the clearing system observes (1) the current Recommendations for Central Counterparties that have been issued jointly by the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions, as updated, revised or otherwise amended, or (2) successor standards, principles and guidance for central counterparties or financial market infrastructures adopted jointly by the Committee on Payment and Settlement Systems or the International Organization of Securities Commissions (RCCPs)[*now PFMI*s].

### Certification

I, E. Bradley Vannan, confirm that I am the President and Chief Operating Officer for ICE Clear Canada, Inc, which office is the functional equivalent of Chief Executive Officer.

I certify that the clearing systems of ICE Clear Canada, Inc. observe the *Principles for Financial Market Infrastructures* that have been issued jointly by the Committee on Payment and Market Infrastructures and the Technical Committee of the International Organization of Securities Commissions, and will adhere to such successor standards, principles and guidance for central counterparties or financial market infrastructures adopted jointly by the Committee on Payment and Market Infrastructures or the International Organization of Securities Commissions unless otherwise reported to the CFTC.

Confirmed by me on April 9, 2015, at the city of Winnipeg, Province of Manitoba, Canada.

  
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E. Bradley Vannan  
President & COO, ICE Clear Canada, Inc.

## **Exhibit D-3 (Supplement S-1 Clearing)**

**A detailed description of the manner in which ICE Clear Canada, Inc. observes each of the RCCPs or successor standards [now PFMI] and documentation supporting the representations made, including any relevant rules or written policies or procedures of ICE Clear Canada. Each RCCP [PFMI] should be addressed separately within the Exhibit.**

See Attachment D-3(1) - ICE Clear Canada's Disclosure Framework document, and Attachment A-1(7.1) to Exhibit A-1, MSC Order No. 6878.

The MSC reviews, assesses, and enforces ICE Clear Canada's adherence to the provisions of *The Commodity Futures Act (Manitoba)* ("CFA") and the rules and regulations promulgated thereto, on an ongoing basis. ICE Clear Canada is also subject to ongoing examination and inspection by the MSC with regard to MSC Orders Nos. 5719 and 6878, which, in part, state that "*ICE Clear Canada shall operate in compliance with the Principles for Financial Market Infrastructures issued jointly by the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO) as the same may be amended, or any successor standards, principles and guidance for central counterparties and financial market infrastructures adopted jointly by CPSS and the IOSCO Technical Committee, in the manner determined by the Commission*".

The MSC provided the CFTC with confirmation of ICE Clear Canada's compliance with the PFMI in a letter dated February 4, 2015.

The attached ICE Clear Canada Disclosure Framework document addresses each of the 23 principles of the *Principles for Financial Market Infrastructures*. This document is published on the ICE Clear Canada website at [https://www.theice.com/publicdocs/clear\\_canada/Clear\\_Canada\\_Disclosure\\_Framework.pdf](https://www.theice.com/publicdocs/clear_canada/Clear_Canada_Disclosure_Framework.pdf).

ICE Clear Canada has implemented the following Policies:

- Compliance Policy - Attachment D-3(2)
- Guaranty Fund Policy - Attachment D-3(3)
- Intra-Day Margin Call Policy - Attachment D-3(4)
- Liquidity Policy - Attachment D-3(5)
- Margin and Guaranty Fund Deposits Policy - Attachment D-3(6)
- Margin Policy - Attachment D-3(7)
- Clearinghouse Operational Risk Meeting Policy - Attachment D-3(8)
- Clearinghouse Financial Risk Meeting Policy - Attachment D-3(9)
- Risk Management and Default Procedures - Attachment D-3(10)

In addition, the Board of Directors of ICE Clear Canada approved the Operational Risk Framework (ORF) which is designed to meet the requirements for managing operational risks described in the PFMI, in *Principle 3: Framework for the comprehensive management of risks*. Attached are:

- Overview - Attachment D-3 (11)
- Performance Thresholds and Risk Tolerance – Attachment D-3(12)
- Matrix – Attachment D-3(13); and
- Operational Risk Tolerance Management Report (template)– Attachment D-3(14)

### ICE Clear Canada - QCCP Status in Canada

We advise that on July 28, 2014 the Bank of Canada, the Alberta Securities Commission, the Autorité des marchés financiers du Quebec, the British Columbia Securities Commission, the Manitoba Securities Commission and the Ontario Securities Commission issued a joint statement advising of the Canadian resident central counterparties that are considered QCCPs for determining the capital treatment of certain banks exposures to CCPs pursuant to the Basel Committee on banking supervision requirements. ICE Clear Canada has been named as a QCCP on this statement. The statement can be accessed on the website of the Bank of Canada at <http://www.bankofcanada.ca/2014/07/qualifying-central-counterparties/>.

### ICE Clear Canada Application to ESMA for Third Country CCP Status

On September 10, 2013, ICE Clear Canada filed an application to the European Securities and Markets Authority (ESMA) for recognition as a Third Country CCP under Chapter 4 of Title III of Regulation (EU) No 648/2012 (EMIR) and Regulation (EU) No 153/2013.

There are two prerequisites to ESMA determining to grant third country CCP status to a foreign clearinghouse, which are;

- a) A completed application filed by the third country CCP which conforms to the requirements of the relevant regulations; and
- b) A finding that the third country in which the clearinghouse is primarily regulated has standards and regulatory requirements for the recognition of clearinghouses that are equivalent to the European standards – EMIR.

The ESMA regulates clearinghouses under Regulation (EU) No 648/2012 (EMIR) of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories. EMIR sets out detailed requirements on central counterparties that extend beyond the requirements of the PFMI.

On 15 October 2014, ESMA provided a Notification of Completeness to ICE Clear Canada. As set out in the Notification, ICCA's application has been determined to meet the requirements of the EU regulations, satisfying part a) above. There has not yet been a determination by ESMA as to Canada meeting equivalency standards.