RBC Capital Markets, LLC

Institutional Client Regulatory Disclosure

PLEASE RETAIN A COPY OF THIS DOCUMENT FOR YOUR RECORDS

Notice to Clients of RBC Capital Markets, LLC of Required Regulatory Disclosures

RBC Capital Markets, LLC ("we", "us", "RBCCM", or the "Firm") is registered as a broker-dealer and investment adviser with the U.S. Securities and Exchange Commission (SEC), and is a member of the New York Stock Exchange, Financial Industry Regulatory Authority ("FINRA") and the Securities Investor Protection Corporation ("SIPC"). RBCCM's products, services, and obligations, and any securities sold, offered, or recommended by RBCCM are not deposits, may lose value, and are not insured by the Federal Deposit Insurance Corporation ("FDIC"), the Canadian Deposit Insurance Corporation ("CDIC"), or any other government entity. RBCCM is not a bank and is a separate legal entity from any of its bank affiliates. The obligations of RBCCM are not obligations of any affiliated bank (unless explicitly stated otherwise), and such affiliates are not responsible for RBCCM's products, services, or obligations, nor any securities sold, offered, or recommended by RBCCM. The obligations of any bank affiliated with RBCCM are not obligations of RBCCM (unless explicitly stated otherwise).

This document provides important disclosures regarding the services provided to Institutional Clients[1] of the RBC Capital Markets business[2]. Except as expressly provided herein, the information contained in this disclosure does not relate to products and services offered or distributed through affiliates of RBCCM, or the retail business of RBC Capital Markets, LLC (RBC Wealth Management). For clients of the Wealth Management division of RBC Capital Markets, LLC, please refer to Form CRS here.

This document should be read in conjunction with other disclosures, notices, agreements, and other materials furnished by RBC Capital Markets, LLC. We encourage clients to periodically check this link for any updates or changes in information as RBCCM will provide any updates on a reasonable and commercially practicable basis.

As a condition of RBCCM's acceptance of your instructions with respect to any action on a particular security, you represent that you will, and undertake to, comply with and fulfill all of your obligations under applicable laws and regulations and will not breach applicable laws and regulations.

You also agree to provide us promptly with all information necessary to fulfil our obligations under applicable laws and regulations.

Specific provisions that apply when trading on certain markets will be included here: Policies & Disclaimers | RBC Capital Markets.

[1] For the purposes of this disclosure, the term "institutional client" is defined under FINRA Rule 4512(c) as (1) a bank, savings and loan association, insurance company or registered investment company; an investment adviser registered either with the SEC under Section 203 of the Investment Advisers Act, or with a state securities commission (or any agency or office performing like functions); or any other person (whether a natural person, corporation, partnership, trust or otherwise) with total assets of at least $50 million.

[2] RBC Capital Markets is the global brand name for the capital markets business of Royal Bank of Canada and its affiliates.

General Disclosures

FINRA Rule 2267: Investor Education and Protection

BrokerCheck provides investors with the ability to research the professional backgrounds, business practices, and conduct of FINRA-registered brokerage firms and brokers. In connection with this program, investors may call the BrokerCheck Hotline at (800) 289-9999 and visit the FINRA webpage available here. An investor brochure that includes information describing the FINRA BrokerCheck program is available from either of these sources.

FINRA Rule 2266: SIPC Information

RBCCM is a member of the Securities Investor Protection Corporation ("SIPC"). Clients may obtain information about SIPC, including the SIPC brochure, by visiting the webpage available here or by calling (202) 371-8300.

FINRA Rule 4370: Business Continuity Plan (BCP Disclosure Statement)

RBCCM is committed to protecting its employees, clients and their assets at all times, including during emergencies or significant business disruptions. The Firm's Enterprise Business Continuity Program has been developed to provide a reasonable, but not absolute, assurance of business continuity in the event of a disruption to the Firm's normal operations.

As part of this commitment, and in compliance with internal policies and industry regulations, the Firm has developed and implemented Business Continuity Plans (the "Plans") for its business units. Each Plan is developed by identifying each business unit's critical risks and documenting the functional requirements needed to reestablish essential business operations. The Plans document the actions and procedures to be followed before, during, and after a prolonged service outage resulting from the loss of operational facilities, critical information systems, or essential personnel. In instances by which business processes require recovery from a significant operational disruption, the Plans include off-site recovery environments, work-area displacement agreements, and/ or work-from-home arrangements.

The Firm conducts annual disaster recovery exercises, designed to ensure computing systems and networks are built with sufficient redundancies. The Firm also requires all business units to conduct an annual contact exercise to ensure personnel, particularly recovery team personnel and their alternates, can be contacted at any time, on short notice. In addition, Plans are tested throughout the year in an effort to ensure that the Firm and its clients are provided with a recovery solution most conducive to their needs.

The Firm relies on the availability, capacity, and reliability of information technology. Each primary computer center has a corresponding back-up/disaster recovery site that is established away from the Firm's primary facilities. The Firm's computer centers are equipped with stand-alone electrical power and cooling capabilities sufficient to run for several weeks without relying on utility power. In an effort to ensure that applications are restored within a period of time acceptable to the business, applications have been prioritized, and their recovery requirements are based off of that prioritization.

The Firm's incident management team is responsible for the coordination of communication and response procedures in the event of a disruption or possible disruption to normal operations. Included in the incident management team's responsibilities is the communication of the Plans with regulatory agencies and key business partners. Members of the incident management team, and its procedures and protocols, have been documented in the Plans.

Pertinent updates to this disclosure statement will be posted on the Firm's websites, as required by applicable law or regulation. Hard copies of the disclosure statement can be obtained by contacting your representative of the Firm.

The Plans are confidential and proprietary in nature and are therefore not made available for public distribution.

Privacy Policy (Regulation S-P)

RBCCM is dedicated to protecting clients' privacy and safeguarding the personal, business, and financial information entrusted to us. RBCCM follows comprehensive privacy policies and security practices in compliance with applicable laws and regulatory requirements. RBCCM's Privacy Policy describes how RBCCM collects and uses client information, how it may be shared and with whom, and your choices as a client. RBCCM's privacy policy can be found on the webpage available here.

Telephone and Recording Devices

As part of our compliance with applicable laws and regulations, certain telephone lines in our sales and trading departments may be recorded. Please note these recordings will be made with the use of a spoken warning, tone, or similar notification.

USA PATRIOT Act – Customer Identification (CIP)

To help the government fight the funding of terrorism and money laundering and for purposes of compliance with the USA PATRIOT Act, U.S. federal law requires RBCCM to obtain, verify, and record information of a customer, as applicable. What this means:

- For individuals: When an individual opens an account or establishes a formal customer relationship with RBCCM, we may ask for the full legal name, physical address, tax identification number and date of birth. For purposes of verification, we may also ask for a valid government-issued photo ID or other equivalent documentation.
- For legal entities: When a legal entity opens an account or establishes a formal customer relationship with RBCCM, we may ask for the full legal name, physical address, tax identification or other corporate identification number. For purposes of verification, we may also require documentation such as articles of incorporation, a partnership agreement, or other formation documentation, as applicable.

Notice to Canadian Customers

Canadian securities orders from Canadian clients must be placed directly with RBC Dominion Securities Inc. (“RBC DS”). RBC DS is the CIRO Dealer Member. In accordance with National Instrument 31-103 (Registration Requirements and Exemptions), RBCCM makes the following representations: If RBCCM is trading with you in reliance upon the international dealer exemption from the dealer registration requirement under NI 31-103, RBCCM is subject to trading restrictions, including, among other things, that RBCCM is only permitted to trade “foreign securities” with “permitted clients” resident in Canada. A foreign security is a security issued by an issuer incorporated, formed or created under the laws of a foreign (i.e., non-Canadian) jurisdiction or a security issued by a government of a foreign jurisdiction. Pursuant to NI 31-103, this definition does not include inter-listed securities of Canadian issuers. This serves to put you on notice that you should only place orders with RBCCM for foreign securities in accordance with NI 31-103.

ASIC AFSL Disclosure Notification

RBCCM provides services to Australian domiciled clients in accordance with an exemption granted by the Australian Securities and Investments Commission (ASIC), where RBCCM is not required to hold an Australian financial services license to provide certain financial services. RBCCM is disclosing before providing the services.

Global Equities

Best Execution

RBCCM takes a number of factors into consideration in determining how to route and execute customers’ orders, including but not limited to: the size and type of order (i.e., Market, Limit, etc.), the terms and conditions of the order, the trading characteristics of the security, the character of the market for the security, the accessibility of liquidity, transaction costs, the opportunity for price or size improvement, the speed of execution, and the level of service provided by the market venue. In addition, the pricing structure offered by certain exchanges may result in RBCCM receiving rebates or paying fees when posting orders which provide liquidity or executing against resting orders to remove liquidity. RBCCM does not handle orders with the goal of minimizing fees or collecting exchange rebates. We may, however, factor these fees or rebates into our order routing methodology only when all other best execution factors are comparable. In some instances, the amount of rebates may exceed the fees paid. RBCCM may route your order to an external trading venue in which RBCCM or one of its affiliates has an ownership interest. As a result of such ownership interest, RBCCM may stand to share in any profits that such venue derives from the execution of RBCCM customer orders on that venue. RBCCM routes orders to available venues based on the considerations outlined above and will not preference any venue solely because it or its affiliate has an ownership interest in that venue. Additional information on the material aspects of RBCCM’s relationships with the primary venues to which RBCCM routes customer orders is available in RBCCM’s reports pursuant to SEC Rule 606, described in more detail below.

To optimize execution quality in the fulfillment of its best execution obligations, RBCCM may attempt to execute its customers’ orders in either an agency or principal capacity.

Orders routed to RBCCM may, by default, be eligible to interact with RBCCM principal liquidity. When trading as principal, RBCCM stands to realize profits and losses. Clients may opt out of principal interaction by contacting their RBCCM sales coverage. Additionally, clients may request that their orders be opted out of routing to any external venue to which RBCCM is not required to route by regulation (i.e., venues whose quotes are not protected under Regulation NMS such as an alternative trading system or electronic liquidity provider). To opt out of any such interactions, please contact your RBCCM sales coverage.

Order Handling

If a client designates an order as “not held” or does not explicitly designate an order as “held” or “not held,” RBCCM will handle the order on a “not held” basis (i.e., we may “work” the order using our discretion as to time, price and/or manner of execution). All orders handled via our electronic order execution services or smart order routing (“SOR”) technology will be handled on a “not held” basis. If a client designates a low-touch order as “held,” we will reject the order.

Orders routed to a RBCCM high-touch desk that are designated by the client as “held” will be handled on that basis.

Where a conflict arises between an order that is designated as "held," but also contains explicit order instructions to be "worked," RBCCM reserves the right to treat the order as “not held.”

FINRA Rule 5270 – Front Running

FINRA Rule 5270 provides that no broker-dealer may cause an order for a security (including “related financial instruments,” such as options, derivatives, or securities-based swaps) to be executed when a firm has material, non-public market information concerning an imminent block transaction in that security (or a security underlying a related financial instrument[3]) until such time the information concerning the block transaction has been made publicly available, or has otherwise become stale or obsolete.

In the normal course of business, RBCCM accepts and facilitates customer block orders, including block orders in single stocks, baskets of securities, and derivatives. Pursuant to exceptions set forth in Rule 5270, RBCCM may trade principally at prices that would satisfy a customer block order, where such transactions are unrelated (e.g., as a result of information barriers) to the customer block order. Under certain circumstances, RBCCM may also use information concerning customer orders or proposed transactions to facilitate the execution of those orders or transactions and may, subject to applicable rules and regulations, take the information into account in limiting the risks to which RBCCM is subject in the course of its activities. As a result, RBBCM may seek to engage in bona fide hedging or positioning activity in individual or related securities or derivatives to reduce or eliminate the market risk associated with the facilitation of a customer block order. While such trading activity may impact the execution price of the customer block order, RBCCM will make reasonable efforts to avoid or minimize any such impact and to obtain the best possible execution for the customer block order. In the event your firm objects to any of the aforementioned order handling practices, please indicate this to us in writing at your earliest convenience.

If you have any questions about this notice, please contact your RBCCM sales coverage for additional information.

FINRA Rule 5320 – Customer Order Protection

FINRA Rule 5320 provides that a firm that accepts and holds a customer order in an equity security and does not execute that order immediately may not trade that same symbol on the same side of the market for its own principal account at a price that would satisfy the customer order, unless the firm immediately thereafter executes the customer order up to the size of and at the same price or better than the principal execution. Pursuant to regulatory guidance, “not held” orders are outside the scope of this rule

Additionally, while FINRA Rule 5320 generally prohibits a firm’s principal orders from trading ahead of customer order flow, RBCCM may execute for a principal account, from time to time, at prices that would satisfy institutional customer order flow pursuant to certain exceptions to the rule, which are described in more detail below.

<u>“No-Knowledge” Exception</u>

Pursuant to Rule 5320’s “no knowledge” exception, when a firm implements and utilizes an effective system of internal controls, such as information barriers, such that one trading unit does not have knowledge of customer orders held by a different trading unit, those trading units may operate independently of each other for purposes of the rule. RBCCM utilizes a system of information barriers to prevent the flow of information between separate and distinct trading units. The Firm’s information barriers may allow the Firm’s market-making desk to trade principally at prices that would otherwise satisfy an open, marketable customer order held by a different trading unit.

These principal account executions are typically executed in relation to market-making activity and may include trading activity in connection with capital commitment, bona-fide hedging activities, and error trades. Furthermore, principal orders entered into the Firm's trading algorithms may receive executions in front of, or alongside of, customer order flow for reasons unrelated to order capacity, such as time/price order priority, order aggressiveness, strategy selection, and other order restrictions.

<u>Large Order and Institutional Account Exception</u>

Orders for institutional accounts and/or large orders (i.e., 10,000 shares or more with a total value of $100,000 or more) are generally excepted from Rule 5320, and RBCCM may trade for its own account while handling such orders unless the institutional client opts-

[3] The Rule defines a “related financial instrument” as any option, derivative, security-based swap, or other financial instrument overlying a security, the value of which is materially related to, or otherwise acts as a substitute for, such security, as well as any contract that is the functional economic equivalent of a position in such security.

in to Rule 5320 protection by notifying their RBCCM sales coverage.

RBCCM LLC Sprint Disclosure

RBCCM operates a single-dealer platform in the US (“SPRINT”), through which RBCCM clients may execute orders in equity securities against principal liquidity provided by certain RBCCM trading desks (“RBCCM Principal Interest”). RBCCM seeks to operate SPRINT in accordance with applicable regulations, and in accordance with reasonable expectations of fairness. This document contains important disclosures and updates (“Disclosures”) regarding your interaction with RBCCM Principal Interest via SPRINT. Your interaction with SPRINT will be on the basis that you have read and understood the Disclosures set forth in this document.

All clients of RBCCM’s Electronic Trading, High Touch, and Program Trading desks (“Clients”), other than those with a commission sharing arrangement (CSA), will be opted-in by default for potential SPRINT interaction (i.e., your orders may, subject to principles of best execution, execute against RBCCM Principal Interest via SPRINT). If you would like to opt-out of interacting with SPRINT, please contact your RBCCM sales representative. Clients who have previously affirmatively opted-out of SPRINT interaction will remain opted-out.

Overview of Execution Mechanics

Orders from RBCCM Clients in Regulation NMS securities (including single stocks and exchange-traded funds (“ETFs”)) entered into RBCCM’s algorithmic and smart order routing strategies (“Orders”) are eligible for SPRINT interaction. SPRINT will be accessed as an available execution venue and only supports receipt of market or limit immediate-or-cancel Orders. Orders sent to SPRINT do not rest inside SPRINT and are not exposed to any other market participant prior to receipt by RBCCM.

SPRINT provides a means for Clients to access RBCCM’s unique principal liquidity, including liquidity provided by the CRB and ETF trading desks. All Orders executed in SPRINT will be executed against RBCCM Principal Interest only, and RBCCM is the party to all SPRINT executions in a principal capacity. SPRINT will not match Client Orders against other Client Orders or against the liquidity of any other dealer. SPRINT is not an “Alternative Trading System” (“ATS”) as defined in Securities and Exchange Commission rules.

RBCCM Principal Interest is comprised of priced orders pegged to the national best bid or offer (“NBBO”) prices (with buy and sell orders priced relative to the “far touch”, “near touch” or midpoint). Clients will not have the ability to choose to trade with RBCCM Principal Interest on an order-by-order basis; rather, RBCCM will determine, consistent with principles of best execution and on the same basis that it would consider routing to any other market center, whether to route Client Orders to SPRINT to execute against RBCCM Principal Interest.

RBCCM Principal Trading

RBCCM will also trade for its own account as principal on ATSs and other trading centers at any time as part of its own principal trading activities and in order to manage RBCCM’s risk. Such trading may be in the same securities available for execution via SPRINT.

Execution of Your Order

Clients will, by default, have SPRINT included as an available execution venue for equity and ETF Orders entered into RBCCM’s algorithmic and smart order routing strategies. If you would like to opt-out of having SPRINT included as an available execution venue for your Orders, please contact your RBCCM sales representative. When RBCCM trades as principal with your order, RBCCM seeks and may earn trading profit. Consistent with its regulatory obligation to seek the best execution reasonably available for its clients’ orders, RBCCM will monitor the execution quality provided by SPRINT on an ongoing and regular basis along with all other venues on which RBCCM transacts.

Pricing

All Client Orders executed against SPRINT will be priced at the NBBO or, in RBCCM‘s sole discretion, at a price better than the prevailing NBBO. RBCCM determines the NBBO using market data from direct market feeds and the securities information processors at the time RBCCM receives your Order. RBCCM’s decision on whether to execute against SPRINT liquidity and at what price may consequently differ based on security, market conditions, the specific algorithmic or smart order routing strategy selected by the Client, consideration of market impact, the volume of anticipated trading, RBCCM’s trading interest and other factors. Therefore, not all Clients, and not all Orders, will receive price improvement and Clients may have different fill ratios compared to other Clients. For example, it could be the case that two Clients may submit identical Orders to RBCCM at the same time and all or a portion of, one Client’s Order may be executed against SPRINT, and the other Client’s Order may be fully or partially executed against a different execution venue, which could include external venues, or that one Client’s Order is executed with price improvement and the other Client’s order is executed without price improvement.

Use of Your Information

RBCCM understands that the confidentiality and security of your pending, unexecuted, cancelled, and rejected orders (including partially rejected orders) (“Sensitive Information”) is paramount and we have controls in place, including established information barriers and procedures which endeavor to protect Client’s confidentiality and to ensure such information is adequately protected within RBCCM. Certain Sensitive Information, such as historical order flow information, is made available to associated persons of RBCCM who provide liquidity to SPRINT or who maintain and test SPRINT and/or other systems that may affect the operation of SPRINT. All RBCCM employees are subject to policies and procedures that are intended to prevent the misuse of counterparty Sensitive Information. Access to Sensitive Information is restricted through internal policies and procedures to only those associated persons whose job function requires access to such information.

Operational Details and Trading Hours

The Hours of Operation for SPRINT are: 9:30AM – 4:00PM Eastern Time. Orders received outside of these hours will not interact with SPRINT.

RBCCM’s market participant identification (“MPID”) is RBCM.

Access and Availability

RBCCM may, in its sole discretion, restrict, limit, deny or discontinue access to SPRINT for any reason and without prior notice to you.

SEC Rules 605 & 606

SEC Rule 605 requires market centers and large broker-dealers to publish certain execution quality statistics on a monthly basis related to the execution of covered orders. SEC Rule 606(a) requires broker-dealers that route held, non-directed orders in NMS stocks and listed option securities to make publicly available quarterly reports that, among other things, provide information about the significant venues to which such customer orders are routed for execution[4]. Access to RBCCM’s Order Execution Information published in accordance with SEC Rule 605 can be found here, as well as RBCCM’s Order Routing Information published in accordance with SEC Rule 606 can be found here. Reports prior to October 2023 can be found here.

Copies of 606(b)(1) or 606(b)(3) reports are available upon request. You may contact your RBCCM sales representative.

Payment for Order Flow

Client orders sent to market centers are subject to the principles of best execution. Each of these market centers provide the opportunity for execution of these orders at prices better than the National Best Bid or Offer (“NBBO”). The NBBO is the best published bid or offer price for the purchase or sale, respectively, of a security at the time an order is presented for execution. RBCCM acts as a market maker in certain equity securities and ETFs.

RBCCM may trade as principal with our client orders and stands to realize profits and losses as a result of this trading. With respect to client orders, RBCCM utilizes a “No Knowledge” exception available under FINRA rules that permits RBCCM to trade for its market-making account at prices that would satisfy other client orders without executing those client orders. The availability of this exception is based upon the persons responsible for executing orders for RBCCM’s market-making account being unaware of the client order’s eligibility to execute at the price at which RBCCM’s market-making account traded. RBCCM evaluates execution quality across various markets and venues. RBCCM also routes client orders to various exchanges, alternative trading systems (ATSs) and other market centers. Certain venues offer credits and/or rebates for orders that provide liquidity and charge fees for orders that remove liquidity. If RBCCM accrues credits/rebates in excess of fees charged for a venue in a given billing period, then a payment could be remitted to RBCCM from the venue. Such payments would constitute a payment for order flow. Most client orders do not have remuneration accrued to their accounts. However, for specific clients that opt into a different cost model, fees and rebates may be passed along to the client.

We may execute an order internally with RBCCM or with other market centers. In addition, we may utilize the “Large Orders and Institutional Account” exception available under FINRA rules that permits RBCCM to trade for its market-making account at prices that would satisfy an order that was placed with us without an execution. This exception may be applied to orders of and above 10,000 shares or to orders of or above $100,000 in value. To request a written copy of this information, please contact your RBCCM sales coverage.

RBCCM may receive remuneration from various trading centers to which we route customer orders, including registered securities exchanges and alternative trading

[4] Please note that based on the SEC's requirements, these statistics capture only a portion of RBCCM’s order flow. These statistics are intended to provide only an overview of RBBCM's order routing practices. Accordingly, the statistics do not create a reliable basis on which to assess whether RBCCM or any other trading venue has satisfied its duty of best execution.

systems, in the form of discounts, rebates, fee reductions or credits. In some circumstances, the amount received by RBCCM from a trading center for a certain period may exceed the amount that RBCCM is charged by that trading center. As noted above, such practices are one of many factors that may impact routing decisions and do not alter RBCCM's policy to route customer orders to the trading centers where it believes customers will receive the best execution.

Additionally, RBCCM and its affiliates have ownership interests in certain trading centers. Accordingly, RBCCM may stand to share in any profits that such trading centers derive from the execution of RBCCM customer orders on those trading centers.

SEC Rule 15c3-5

SEC Rule 15c3-5 requires broker-dealers that access or provide access to exchanges or alternative trading systems to establish, document and maintain a system of risk management controls that are reasonably designed to manage the financial, regulatory and other risks in connection with market access. RBCCM has developed controls that may pause or reject select orders that exceed certain pre-determined risk parameters. For certain paused orders, RBCCM will determine if it is appropriate to send the orders to the market based upon a variety of factors, including, but not limited to, order size, price and volume considerations.

Regulation NMS – Order Protection Rule

Rule 611 of Regulation NMS (the "Order Protection Rule") establishes intermarket price protection against trade-throughs for all NMS stocks (broadly, exchange listed securities other than options) by restricting the execution of trades on automated trading centers at prices inferior to the protected quotes displayed by other automated trading centers. A "trade-through" occurs when a market participant executes an agency or principal order during regular market hours at a price that is worse than the protected quotes displayed by these trading centers. As such, when executing your order in an NMS stock, RBCCM is prohibited from effecting transactions at prices that are lower (higher) than the best bids (offers) in the market, without first satisfying the better-priced protected quotes.

The Order Protection Rule contains several exceptions that permit the execution of trades at prices that would otherwise constitute a trade-through. In the absence of another exception, RBCCM will simultaneously route one or more intermarket-sweep limit orders ("ISOs"), as necessary, to execute against the full displayed size of any superior priced protected bid, in the case of an order to sell, or the full displayed size of any protected offer, in the case of an order to buy, for an NMS security.

Indication of Interest

An indication of Interest ("IOI") is a non-firm, non-binding expression of trading interest used by broker-dealers to advertise buying or selling interest in a security without creating a formal order. RBCCM uses certain service providers to advertise IOIs. When publishing IOIs, RBCCM will adhere to the guidance issued by regulators and service providers. This includes the manner in which RBCCM will designate an IOI as a "natural" IOI. For example, IOIs will generally be considered "natural" when:

- RBCCM has received a client order, and the order has been entered into an order management system;
- RBCCM receives client instructions that they have a bona fide interest to trade a specified quantity or "meaningful size" or a security; or
- RBCCM facilitates a client order as principal and is liquidating or covering the resultant risk position or is otherwise engaged in transactions to hedge customer-facing activities.

Net Trades

A "net trade" occurs when a broker-dealer transacts an order for an equity security for a customer at a different price than the price the broker-dealer acquired or sold it at in the market. In order to facilitate orders on a net basis, RBCCM will, after receiving such order, accumulate a position in a principal account and execute the order at the average price of the accumulation plus or minus an agreed upon compensation. Accordingly, the net price you receive will include the compensation that you agreed to pay RBCCM. Since the net price is the price that is reported by RBCCM to the Consolidated Tape, it will appear as the price on your confirmation. Therefore, the client confirmation will not separately disclose the compensation that RBCCM earned on the trade. The actual prices used to facilitate the order(s) are available upon request. If you have no objection to RBCCM executing orders on a net basis, as described, you need not respond to this letter and no action is necessary.

Buy-In Disclosure

Pursuant to Rule 204 of Regulation SHO, in connection with any customer sale transaction that results in a fail to deliver ("FTD") of a U.S. equity security at a registered clearing agency, prior to the open of trading on T+2 (in the case of short sales) or T+4 (in the case of long sales, or short sales in connection with bona fide market making activity), RBCCM will immediately seek to resolve the fail by borrowing securities to make delivery or by engaging in a “buy-in” transaction in which RBCCM purchases the securities in the market in satisfaction of its delivery obligation. RBCCM reserves the right to charge the seller for the cost of such close-out borrows or buy-in transactions. To the extent RBCCM is unable to timely resolve an FTD, our customers’ ability to effect short sales through RBCCM in the failing security will be constrained. Accordingly, customers are advised to make every effort to settle their transactions with RBCCM in a timely manner so as to avoid the possibility of an FTD.

SEC Rule 105 of Regulation M: Important Information for Persons Seeking Allocations of Public Offering Securities

SEC Rule 105 of Regulation M generally prohibits any person that sold short securities subject to a public securities offering within a specified period of time immediately preceding the pricing of the offering from, in turn, purchasing securities in that offering. For additional information on Rule 105, please see the SEC’s adopting release, available here.

Extended Hours Risk Disclosure Statement

Under extended hours trading (“ETH”), RBCCM clients may have the ability to trade stocks either before or after regular market hours (“RTH”), which are 9:30 a.m. to 4:00 p.m. Eastern Standard Time. This option provides our clients with greater opportunities to trade securities and manage their portfolios. However, participating in ETH entails several material risks, which may include the following:

Risk of Lower Liquidity

Liquidity refers to the ability of market participants to buy and sell securities. Generally, the more orders that are available in a market, the greater the liquidity. Liquidity is important because with greater liquidity it is easier for investors to buy or sell securities, and as a result, investors are more likely to pay or receive a competitive price for securities purchased or sold. There may be lower liquidity in extended hours trading as compared to regular market hours. As a result, your order may only be partially executed, or not at all.

Risk of Higher Volatility

Volatility refers to the changes in price that securities undergo when trading. Generally, the higher the volatility of a security, the greater its price swings. There may be greater volatility in extended hours trading than in regular market hours. As a result, your order may only be partially executed, or not at all, or you may receive an inferior price in extended hours trading than you would during regular market hours.

Risk of Changing Prices

The prices of securities traded in extended hours trading may not reflect the prices either at the end of regular market hours, or upon the opening the next morning. As a result, you may receive an inferior price in extended hours trading than you would during regular market hours.

Risk of Unlinked Markets

Depending on the extended hours trading system or the time of day, the prices displayed on a particular extended hours trading system may not reflect the prices in other concurrently operating extended hours trading systems dealing in the same securities. Accordingly, you may receive an inferior price in one extended hours trading system than you would in another extended hours trading system.

Risk of News Announcements

Normally, issuers make news announcements that may affect the price of their securities after regular market hours. Similarly, important financial information is frequently announced outside of regular market hours. In extended hours trading, these announcements may occur during trading, and if combined with lower liquidity and higher volatility, may cause an exaggerated and unsustainable effect on the price of a security.

Risk of Wider Spreads

The spread refers to the difference in price between what you can buy a security for and what you can sell it for. Lower liquidity and higher volatility in extended hours trading may result in wider than normal spreads for a particular security.

Risk of Lack of Calculation or Dissemination of Underlying Index Value or Intraday Indicative Value

For certain derivative securities, an updated underlying index value or intraday indicative value may not be calculated or publicly disseminated in extended trading hours. Since the underlying index value and intraday indicative value are not calculated or widely disseminated during extended hours trading, an investor who is unable to calculate implied values for certain derivative securities in those trading sessions may be at a disadvantage to market professionals.

Orders

Orders entered for execution outside of RTH must be specifically designated as such and will not carry over from regular trading sessions unless RBCCM and you specifically agree to the contrary. Orders not executed by the close of the non-regular trading session, on the day that RBCCM receives them, will be cancelled, unless RBCCM and you specifically agree to the contrary.

Handling of Orders

RBCCM will attempt to have all orders received by it for execution outside of RTH executed in a timely manner. However, because the bid and offer prices of orders reflected in quotations outside of RTH are subject to change, there is no guarantee that your orders will be executed. In addition, delays or failures in communications or other computer system problems may cause delays in, or prevent, the execution of orders. As with orders entered during the regular trading sessions, you agree that RBCCM may deliver your order to an electronic communication network or other alternative trading system that, although operated independently of RBCCM, may have RBCCM or one of its affiliates as an equity investor. In addition, RBCCM and one or more of its affiliates may decide to display orders or to trade with limit orders displayed by RBCCM on your behalf. These affiliates may operate independently of RBCCM.

Cancellation or Change Requests

You may attempt to change or cancel orders placed outside of RTH at any time so long as they have not been executed. Due to the risk of communication delays, it is possible that all or a portion of such orders may be executed before the change or cancellation request is processed. Unless RBCCM and you specifically agree to the contrary, you cannot change an order entered outside of RTH to a regular trading session order, and all unexecuted orders placed outside of RTH will be cancelled at the close of the trading session, on the day that RBCCM receives them.

Trade Settlement

The trade date for orders entered outside of RTH will be the date of order execution. Such trades will normally settle in accordance with the customary settlement time applicable to the market in which orders were executed.

Conflicts of Interest Disclosure for ETF Transactions

RBCCM may have potential conflicts of interest relating to the ETF that you may purchase from or sell to us. In particular, RBCCM may:

- Act as an authorized participant in the purchase or sale of shares from an ETF. RBCCM will have information about pending creations or redemptions of large blocks of ETF shares.
- Act as a lead market maker, market maker, or block positioner in securities or other instruments that are held by the ETF and/or are part of the index whose performance the ETF seeks to track. In this regard, RBCCM will often buy securities or sell securities, derivatives, or other instruments for other customers or for its own account without regard to whether the ETF is buying, selling, or holding those securities, derivatives, or instruments.
- Act as principal for its own account or as agent by buying or selling securities and other instruments to or from the ETF. RBCCM will often act as counterparty to the ETF in connection with securities and derivatives transactions (including, but not limited to, swaps, forwards, and options of all types). RBCCM will receive customary brokerage commissions, mark-ups/mark-downs, or other charges and fees from these transactions and, when acting as principal, may also benefit from the dealer's spread.
- Have an ownership interest in the ETF shares or related derivatives (including long and short positions) and effect transactions in derivatives related to the ETF, including taking large, short and other positions to hedge positions in the ETF shares.
- Have multiple advisory, transactional, financial, and other interests in the companies whose securities or other instruments may be purchased or sold by the ETF. RBCCM will, from time to time, engage in business with these companies, including extending loans to, making equity investments in, or providing advisory services to the companies, including merger and acquisition advisory services. In the course of those activities, certain RBCCM personnel will acquire nonpublic information about the companies. Such information could affect the prices at which the ETF shares trade. RBCCM will maintain the confidentiality of such information and not disclose it to the ETF, ETF shareholders, or other unauthorized personnel.

RBCCM's activities described herein could negatively affect the performance of the underlying index and/or the price at which you will be able to transact in your ETF shares in the secondary market.

RBCCM's trading activities will, at times, be contrary to the trading of the ETF and/or ETF shareholders. RBCCM's economic interests (such as long or short positions in the ETF) will, at times, be inconsistent with those of the ETF and/or ETF shareholders. It is also possible that RBCCM activities could result in substantial returns for RBCCM while the value of the ETF shares decline.

ETF Order Handling

ETF Orders routed to RBCCM for handling will be handled and/or executed by the equities line of business or the line of business covering the underlying product of the ETF (e.g., Rates, Credit).

Options Disclosures

Order Origin Codes

Customers must communicate with their RBCCM sales coverage which order origin code shall be used to execute their order(s), including whether a customer registered as an options market-maker is registered on a particular exchange. To the extent orders will be placed under a new order origin code and/or if a customer uses multiple origin codes when sending options orders to RBCCM, it is the customer's responsibility to ensure that the appropriate codes are communicated to their RBCCM sales coverage.

Professional Customer Designation for Options Orders

In order to properly represent orders entered on exchanges, RBCCM is required to indicate whether public customer orders are "Professional Orders." As such, a customer must notify RBCCM if it believes that it meets the definition of a Professional Customer: (1) it is not a broker-dealer; and (2) it places more than 390 listed options orders per day for its own beneficial account, executed or not, on average during a calendar month. Similarly, broker-dealers that route listed option orders to RBCCM have an obligation to review such order flow and appropriately designate customer orders as Professional Orders. To the extent RBCCM identifies a customer who meets the definition of a Professional Customer during any month of a calendar quarter, RBCCM will represent that customer's orders as Professional Orders within five (5) days of the next calendar quarter. If, during a quarter, an exchange identifies a customer for which orders are not being represented as Professional Orders but averaged more than 390 orders per day during a month, the exchange will notify RBCCM, and RBCCM will be required to change the manner in which it is representing the customer's orders within five (5) days.

Options Position Limits

FINRA and options exchange rules place a position limit on the number of puts and calls on the same side of the market and in the same underlying security that an investor, or group of investors acting in concert or under common control can write or hold. Positions are calculated by aggregating positions that express similar market sentiment (e.g., long calls/short puts and short calls/long puts) and quantified as equivalent terms of stock. Limits, which are set by the options exchanges, are based on the number of shares outstanding and trading volumes of the securities underlying the options. These limits apply to options written or purchased on different exchanges and using different accounts. Customers are required to comply with exchange and regulatory rules related to options position limits, including the availability of hedging exemptions, and should determine the current limits before engaging in any option transactions. In the event a customer's transaction exceeds the position limit for a security, RBCCM personnel reserve the right to inquire into the hedging exemption the customer relied upon.

Characteristics and Risks of Standardized Options

The Options Disclosure Document ("ODD") issued by the Options Clearing Corporation (OCC) details the characteristics and risks of listed options, and it may be obtained online at the OCC webpage available here or by contacting your RBCCM sales coverage. Please review the ODD prior to transacting in options.

Tied Hedge

When handling an option order of 500 contracts or more on your behalf, RBCCM may buy or sell a hedging stock, security futures or futures position following receipt of the option order, but prior to announcing the option order to the trading crowd. The option order may thereafter be executed using the Chicago Board Options Exchange's tied hedge procedures. These procedures permit the option order and hedging position to be presented for execution as a net-priced package subject to certain requirements. For further details on the operation of the procedures, please refer to the exchange rules for tied hedge orders including Chicago Board Options Exchange Rule 5.86.07, which is available at CBOE Options Exchange Regulation.

Fixed Income (Macro, Spread)

MSRB Rule G-10

In accordance with the Municipal Securities Rulemaking Board (MSRB) Rule G-10, RBCCM is providing this disclosure electronically for its customers who effected or hold a municipal securities position and qualifies as a sophisticated municipal market professional under MSRB Rule D-15.

- RBCCM is registered with the U.S. Securities and Exchange Commission and the MSRB.
- The MSRB website can be found here. The website provides a link to an investor brochure that describes the MSRB rule's protections and

how to file a complaint with an appropriate regulatory authority.

If you have questions, please contact your RBCCM representative.

RBC Capital Markets, LLC Material Auction Practices and Procedures

Auction rate securities are bonds or preferred securities for which the interest or dividend rate is set periodically through a bidding process (an "Auction"). The auction is conducted by broker-dealers, which submit the results to a third party (the "Auction Agent") for a determination of the applicable rate. The following are the material practices and procedures of RBCCM when we act as a broker-dealer for auction rate securities.

Definitions

"Auction Failure Event": failure of the auction agent to receive Bids lower than the Maximum Rate for the total amount of securities being auctioned.

"Auction Period": the period for which the auction determines the interest rate on the securities that are the subject of the Auction.

"Auction Procedures": the procedures governing the conduct of an Auction, usually set forth in the indenture or resolution covering the securities and summarized in the offering document for the issue or in supplemental disclosure documents.

"Auction Rate": the rate of interest per annum determined as a result of the Auction.

"Bid": an Order that is an offer to buy.

"Bidder": a party that places a Bid with RBCCM during an Auction.

"Maximum Rate": the maximum interest rate per annum on the securities, as provided in the offering document.

"Minimum Rate": the minimum interest rate per annum on the securities, as provided in the offering document.

"Order": an offer to buy or sell auction rate securities during an Auction, or a Submitted Hold Order.

"Seller": a party that places an Order with RBCCM during an auction that is an offer to sell auction rate securities.

"Submitted Hold Orders": a communication by an existing owner during an Auction that the owner desires to continue to own the securities without regard to the Auction Rate.

Bidding by RBCCM for its Own Account

RBCCM is permitted, but not obligated, to submit orders in Auctions for its own account either as a Bidder or a Seller and routinely does so in the auction rate securities market in its sole discretion. If RBCCM submits an Order for its own account, it will have an advantage over other Bidders because RBCCM will have knowledge of some or all of the other Orders placed through RBCCM in that Auction and, thus, can determine the rate and size of its Order so as to ensure that its Order is likely to be accepted in the Auction and that the Auction is likely to clear at a particular rate. For this reason, and because RBCCM is appointed and paid by the issuer of the securities to serve as a broker-dealer in the Auction, RBCCM's interests in conducting an Auction may differ from those of holders and potential holders of the securities who participate in Auctions. See "Auction Dealer Fees." RBCCM would not have knowledge of Orders submitted to the Auction Agent by any other firm that is, or may in the future be, appointed by an issuer of auction rate securities to accept Orders.

RBCCM may routinely place one or more Bids in an Auction for its own account to acquire the securities for its inventory, to prevent an Auction Failure Event (which would result in the Auction Rate being set at the Maximum Rate) or an Auction from clearing at a rate that RBCCM believes does not reflect the market for the securities. RBCCM may place such Bids even after obtaining knowledge of some or all of the other Orders submitted through it. When bidding for its own account, RBCCM may also bid outside or inside the range of rates that it posts in its Price Talk. See "Price Talk."

RBCCM also may routinely encourage bidding by others in Auctions, including to prevent an Auction Failure Event or an Auction from clearing at a rate that RBCCM believes does not reflect the market for the securities. RBCCM may routinely encourage such Bids even after obtaining knowledge of some or all of the other Orders submitted through it.

Bids by RBCCM or by those it may encourage to place Bids are likely to affect (i) the Auction Rate - including preventing the Auction Rate from being set at the Maximum Rate or otherwise causing Bidders to receive a higher or lower rate than they might have received had RBCCM not bid or not encouraged others to bid and (ii) the allocation of securities being auctioned - including displacing some Bidders who may have their Bids rejected or receive fewer securities than they would have received if RBCCM had not bid or encouraged others to bid. Because of these practices, the fact that an Auction clears successfully does not mean that an investment in the securities involves no significant liquidity or credit risk. RBCCM is not obligated to continue to place such bids or encourage other Bidders to do so in any particular Auction to prevent an Auction from failing or clearing at a rate RBCCM believes does not reflect the market for the securities. Investors should not assume that RBCCM will do so or that Auction Failure Events will not occur. Investors should also be aware that Bids by RBCCM or by those it may encourage to place Bids may cause unfavorable Auction Rates to occur.

In any particular Auction, if all outstanding securities are the subject of Submitted Hold Orders, the Auction Rate until the next Auction will be the Minimum Rate (such a situation is called an "All Hold Auction"). RBCCM is under no obligation to advise existing holders of the fact that an All Hold Auction is likely.

If RBCCM holds any securities for its own account on an Auction Date, RBCCM will submit a Sell Order into the Auction with respect to such securities, which would prevent that Auction from being an All Hold Auction. RBCCM may, but is not obligated to, submit Bids for its own account in that same Auction, as set forth above.

Auction Dealer Fees

For many auction rate securities, RBCCM has been appointed by the issuer of the securities to serve as a dealer for the related auctions and is paid by the issuer for its services. This is typically done pursuant to a contract (the "Broker-Dealer Agreement") between the issuer and RBCCM. The Broker-Dealer Agreement provides that RBCCM will receive from the issuer auction dealer fees at an annual rate of a percentage of the principal amount of the securities sold or successfully placed through RBCCM. As a result, RBCCM's interests in conducting Auctions may differ from those of investors who participate in Auctions.

RBCCM may share a portion of the auction dealer fees it receives from the issuer with other broker-dealers that submit orders through RBCCM that RBCCM successfully places in the Auction. In general, auction dealers may share with RBCCM a portion of the fees they receive from an issuer when those dealers submit orders for RBCCM (on behalf of RBCCM or its customers) into auctions in which RBCCM does not serve as a dealer. Similarly, with respect to auctions for other auction rate securities for which RBCCM does not serve as a dealer, the other broker-dealers who serve as dealers in those auctions may share auction dealer fees with RBCCM for orders that RBCCM submits through those broker-dealers that those broker-dealers successfully place in those auctions.

Price Talk

Before the start of an Auction, RBCCM may, in its discretion, make available to existing and potential holders of the securities RBCCM's good faith judgment of the range of likely clearing rates for the Auction based on market and other information. This is known as "Price Talk." Price Talk is not a guarantee, and existing and potential holders are free to use it or ignore it. If RBCCM provides Price Talk, RBCCM will make the Price Talk available to all existing and potential holders of the securities. RBCCM may occasionally update and change the Price Talk based on changes in issuer credit quality or macroeconomic factors that are likely to result in a change in interest rate levels, such as an announcement by the Federal Reserve Board of a change in the Federal Funds rate or an announcement by the Bureau of Labor Statistics of unemployment numbers. RBCCM will make such changes available to all existing and potential holders that were given the original Price Talk.

All-or-Nothing Bids

Auction Procedures normally require the pro rata allocation of securities where there are not sufficient sell orders to fill all bids at the clearing rate. Thus, unless Auction Procedures provide otherwise, RBCCM does not accept "all-or-nothing" bids (i.e., bids whereby the bidder proposes to reject an allocation smaller than the entire quantity bid) or any other type of bid that allows the bidder to avoid pro rata allocation.

No Assurances Regarding Auction Outcomes

RBCCM provides no assurance as to the outcome of any Auction. Nor does RBCCM provide any assurance that any Bid will be accepted or that the Auction will clear at a rate that a Bidder considers acceptable. Bids may be rejected or may be only partially filled, and the rate on any securities purchased or retained may be lower than the Bidder expected.

Deadlines/Auction Periods

Each particular Auction has a formal time deadline by which all Bids must be submitted by RBCCM to the Auction Agent. This deadline is called the "Submission Deadline." To provide sufficient time to process and submit customer Bids to the Auction Agent before the Submission Deadline, RBCCM imposes an earlier deadline - called the "Internal Submission Deadline" - by which Bidders must submit Bids to RBCCM. The Internal Submission Deadline is subject to change by RBCCM. RBCCM may allow for correction of clerical errors after the Internal Submission Deadline and prior to the Submission Deadline. RBCCM may submit Bids for its own account at any time until the Auction Submission Deadline. Some Auction Agents allow for the correction of clerical errors for a specified period of time after the Auction Submission Deadline.

For some securities, the Auction Procedures provide that during any Auction period, the issuer of the securities may change the length of the next Auction period. In Auctions that are subject to the changed Auction period, RBCCM may place a bid to buy the securities that may effectively place an upper limit on the rate that can be set at the Auction at a rate that is below the Maximum Rate. RBCCM may negotiate a separate fee from the issuer of the securities in such circumstances.

Existing Holders' Ability to Resell Auction Rate Securities May Be Limited

Existing holders will be able to sell all of the securities in an Auction that are the subject of submitted Sell Orders only if there are Bidders willing to purchase all those securities offered for sale in the Auction.

If sufficient clearing Bids have not been made, existing holders that have submitted Sell Orders will not be able to sell in the Auction all, and may not be able to sell any, of the securities subject to such submitted Sell Orders. As discussed above (see "Bidding by RBCCM for Its Own Account"), RBCCM may submit a Bid in an Auction to keep it from failing, but it is not obligated to do so. There may not always be enough Bidders to prevent an Auction from failing in the absence of RBCCM bidding in the Auction for its own account or encouraging others to bid. Therefore, Auction Failure Events are possible, especially if the issuer's credit were to deteriorate, a market disruption were to occur or if, for any reason, RBCCM were unable or unwilling to bid.

Between Auctions, there can be no assurance that a secondary market for the securities will develop or, if it does develop, that it will provide existing holders the ability to resell the securities in the secondary market on the terms or at the times desired by an existing holder.

RBCCM may, in its own discretion, decide to buy or sell the securities in the secondary market for its own account to or from investors at any time and at any price, including at prices equivalent to, below, or above the par value of the securities. However, RBCCM is not obligated to make a market in the securities and may discontinue trading in the securities without notice for any reason at any time. Existing holders who resell between Auctions may receive less than par value, depending on market conditions.

The ability to resell the securities will depend on various factors affecting the market for the securities, including news relating to the issuer, the attractiveness of alternative investments, the perceived risk of owning the securities (whether related to credit, liquidity or any other risk), the tax or accounting treatment accorded the securities (including recent clarification of U.S. generally accepted accounting principles as they apply to the accounting treatment of auction rate securities), reactions of market participants to regulatory actions or press reports, financial reporting cycles and market conditions generally. Demand for the securities may change without warning and declines in demand may be short-lived or continue for longer periods.

Regulation of the Auction Agent

The duties of the Auction Agent are contained in a contract (the "Auction Agent Agreement") among the Auction Agent, the broker-dealer and the issuer of the securities. The Auction Agent Agreement normally provides that the Auction Agent may resign from its duties by giving a certain number of days notice and may not require, as a condition to the effectiveness of such resignation, that a replacement Auction Agent be in place if its fee has not been paid. The Broker-Dealer Agreement normally provides that RBCCM may resign upon a certain number of days notice or immediately, in certain circumstances, and may not require, as a condition to the effectiveness of such resignation, that a replacement broker-dealer be in place. For any Auction Period during which there is no duly appointed Auction Agent, or during which there is no duly appointed broker-dealer, it will not be possible to hold Auctions, with the result that the interest rate on the securities will be determined in another manner, which may or may not be as favorable to investors.

Participation by Issuers/Conduit Borrowers in Municipal Auction Rate Securities

Certain municipal issuers or conduit borrowers have determined to participate in the auction of their own auction rate securities pursuant to recent guidance from the U.S. Securities and Exchange Commission. These issuers/conduit borrowers are required to provide a notice of their intent to participate in the auction and the interest rate and amounts that they will bid for and certain other detailed bidding information.

This information is available here.

Additional Information

These Disclosures may be amended by RBCCM from time to time and made available to you on RBCCM's website here). Your continued trading with RBCCM following any update to the Disclosures shall be deemed to constitute acceptance and acknowledgement that you have read and understood the terms. If you have any questions or would like any further information, please contact your RBCCM sales representative.

We look forward to continuing to provide you with financial services.