



55 East 52nd Street
New York, New York 10055

Submission No. 19-117 (8 of 8)
January 31, 2019

Mr. Christopher J. Kirkpatrick
Secretary of the Commission
Office of the Secretariat
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, NW
Washington, DC 20581

Re: New MSCI Pacific ex Japan NTR Index Future (8 of 8)
Submission Pursuant to Section 5c(c)(1) of the Act and Regulation 40.2

Dear Mr. Kirkpatrick:

Pursuant to Commission Regulation 40.2, ICE Futures U.S., Inc. (“Exchange” or “IFUS”) submits by written certification the amendments to Chapter 23, Rule 6.25, the no-cancellation range (“NCR”) and Reasonability Limit Tables and the Interval Price Limit table, attached as Exhibits B and C, which provide for the listing of eight new MSCI equity index futures contracts.

The Exchange currently lists a number of futures contracts based on various broad based MSCI equity indexes. IFUS will add to that group by listing the following new MSCI equity index futures contracts:

| Contract Name | Contract Size | Minimum Tick (Index Points) | Accountability Level (Single Month) | Position Limit (All Months) |
|-------------------------------------|----------------------|---|--|------------------------------------|
| MSCI Pacific NTR Index Future | \$10 x Index | Generally =1.00 Pts Certain Block Trades = 0.01 Pts | 10,000 Contracts | 50,000 Contracts |
| MSCI North America NTR Index Future | \$10 x Index | Generally = 1.00 Pts Certain Block Trades = 0.01 Pts | 50,000 Contracts | 50,000 Contracts |
| MSCI World NTR Index Future | \$10 x Index | Generally =1.00 Pts Certain Block Trades = 0.01 Pts | 20,000 Contracts | 100,000 Contracts |
| MSCI Europe NTR Index Future | \$10 x Index | Generally =1.00 Pts Certain Block Trades = 0.01 Pts | 20,000 Contracts | 200,000 Contracts |
| MSCI USA GTR Index Future | \$5 x Index | Generally =1.00 Pts Certain Block Trades = 0.01 Pts | 20,000 Contracts | 100,000 Contracts |
| MSCI Canada GTR Index Future | \$10 x Index | Generally =1.00 Pts Certain Block Trades = 0.01 Pts | 20,000 Contracts | 100,000 Contracts |

| | | | | |
|--|---------------|---|------------------|------------------|
| MSCI AC Asia ex Japan NTR Index Future | \$100 x Index | Generally = 0.01 Pts Certain Block Trades = 0.01 Pts | 10,000 Contracts | 50,000 Contracts |
| MSCI Pacific ex Japan NTR Index Future | \$100 x Index | Generally = 1.00 Pts Certain Block Trades = 0.01 Pts | 10,000 Contracts | 50,000 Contracts |

The Pacific Index captures large and mid-cap representation across five developed market countries in the Pacific region. The North America Index measures the performance of the large and mid-cap segments of the US and Canada markets. The AC Asia ex-Japan index captures large and mid-cap representation across two of three developed markets (excluding Japan) and nine emerging market countries in Asia. The Pacific ex-Japan index captures large and mid-cap representation across four of five developed market countries in the Pacific region (excluding Japan). The World, Europe, USA and Canada indexes are each a variant (either Net Total Return or Gross Total Return) on other MSCI indexes on which the Exchange already lists futures contracts based on the price variant of the respective index. Detailed specifications for each new futures contract are attached as Exhibit A. The corresponding MSCI equity indexes are broad based; links to detailed descriptions of the new indexes that underlie these contracts are contained in Exhibit C.

Proposed contract specifications for the eight new futures contracts are similar to those of the existing IFUS MSCI equity index futures contracts and are attached as Exhibit A: each is cash settled at expiration using a final settlement price derived from the underlying MSCI Index; listed contract months (March, June, September, December), trading hours, daily settlement window, last trading day and last trading day hours also match respective terms of the existing contracts. The multiplier for the MSCI AC Asia ex-Japan Index future is \$100; the multiplier for the MSCI USA GTR Index future is \$5; and the multiplier for each of the other proposed new futures contracts is \$10 times the Index. Based on current index levels, the notional value of the new contracts range from approximately \$45,000 up to \$75,000. The NCR levels and Reasonability Limits, as well as the Interval Price Limits for the new MSCI equity index futures contracts are in-line with the levels for the current equity index futures listed by the Exchange and are set forth on the Exchange's website. A copy of the relevant tables are attached in Exhibit C.

The new contracts are subject to the position limits and position accountability levels, which are set forth in amended Exchange Rule 6.25(b). Participants exceeding the accountability level of the new MSCI Contracts: (i) automatically consent not to increase further and automatically consent to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that participant's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such other relevant information as the Exchange may require. Position accountability levels and limits are based upon the deliverable supply in the cash market. A detailed deliverable supply analysis accompanies this submission as Exhibit D¹.

Certifications

The amendments will become effective with the listing of the new MSCI equity index contracts on or about April 8, 2019, or such other date as the Exchange shall determine, which

¹ In accordance with CFTC Regulation 40.8, the Exchange has filed a request for confidential treatment of Exhibit D.

shall be no sooner than the second business day following the day on which this submission is filed. The Exchange is not aware of any substantive opposing views to the new contracts. The Exchange certifies that the rule amendments comply with the requirements of the Act and the rules and regulations promulgated thereunder. The Exchange has reviewed the designated contract market core principles ("Core Principles") as set forth in the Act and has determined that the listing of the contracts complies with the following relevant Core Principles:

COMPLIANCE WITH RULES

The terms and conditions of the new MSCI equity index contracts will be enforced by the Exchange and are set forth in Chapter 23 and Rule 6.25, and the no-cancellation range ("NCR") table posted on the Reasonability Limits and NCR page on the Exchange's website as well as the Interval Price Limits table on the site. In addition, trading of the contracts is subject to all relevant Exchange rules which are enforced by the Market Regulation Department.

CONTRACTS NOT READILY SUBJECT TO MANIPULATION

The new contracts are not readily subject to manipulation as they are based on liquid underlying broad-based equity indexes which are widely traded. In addition, trading of the new contracts will be monitored by the Exchange's Market Regulation Department.

POSITION LIMITS OR ACCOUNTABILITY

Positions in the new MSCI equity index contracts will be subject to the single month accountability levels and all-months combined position limits set by the Exchange. Such accountability levels and position limits are based upon the deliverable supply in the cash market. A detailed deliverable supply analysis is attached hereto as Exhibit D.

FINANCIAL INTEGRITY OF CONTRACTS

The new contracts will be cleared by ICE Clear U.S., a registered derivatives clearing organization subject to Commission regulation, and carried by registered futures commission merchants qualified to handle customer business.

The Exchange further certifies that, concurrent with this filing, a copy of this submission was posted on the Exchange's website and may be accessed at (<https://www.theice.com/futures-us/regulation#rule-filings>).

If you have any questions or need further information, please contact me at 212-748-4021 or at jason.fusco@theice.com.

Sincerely,



Jason V. Fusco
Assistant General Counsel
Market Regulation

Enc.
cc: Division of Market Oversight

EXHIBIT A

| MSCI Pacific NTR Index Future | |
|---|---|
| Contract Size | \$10 times the MSCI Pacific NTR Index |
| Contract Months | 5 contracts in the March, June, September and December cycle |
| Price Quotation | Index points, to two decimal places |
| Tick Size | 1.00 Index point, equal to \$10.00 per contract. (Block Trades can be done at .01 Index points) |
| Trading Hours | 8:00 pm to 6:00 pm (6:00 pm open on Sunday evening) Preopen starts 30 minutes prior to the start of trading. |
| Last Trading Day | Third Friday of the expiration month. Trading in the expiring contract ceases at 4:15 pm NY time on Last Trading Day. |
| Symbol | MPA |
| Daily Settlement Window | 15:59 to 16:00 NY time |
| Final Settlement | Cash settlement to the closing value of the MSCI Pacific NTR on the Last Trading Day for the contract. |
| Position Accountability and Limit Levels | Position Accountability Level - 10,000 lots in any month Position Limit, All Months Combined - 50,000 lots |
| Daily Price Limit | None. |
| Block Enabled | Yes, 50 lot Block Minimum Quantity |
| EFP and EFS Enabled | Yes. |
| IPL Levels | IPL Amount: 150.00 Index Points Recalc Time and Hold Period: 5 seconds |
| NCR and RL Levels | NCR 15.00; RL 120.00; CSLOR 10.00 Index Points |
| Clearing Venue | ICE Clear U.S. |

| MSCI North America NTR Index Future | |
|---|---|
| Contract Size | \$10 times the MSCI North America NTR Index |
| Contract Months | 5 contracts in the March, June, September and December cycle |
| Price Quotation | Index points, to two decimal places |
| Tick Size | 1.00 Index points equal to \$10.00 per contract; (Block Trades can be done at .01 Index points) |
| Trading Hours | 8:00 pm to 6:00 pm (6:00 pm open on Sunday evening) Preopen starts 30 minutes prior to the start of trading. |
| Last Trading Day | Third Friday of the expiration month. Trading in the expiring contract ceases at 4:15 pm NY time on Last Trading Day. |
| Symbol | NAA |
| Daily Settlement Window | 15:59 to 16:00 NY time |
| Final Settlement | Cash settlement to the closing value of the MSCI North America NTR Index on the Last Trading Day for the contract. |
| Position Accountability and Limit Levels | Position Accountability Levels - 50,000 lots in any month Position Limit, All Months Combined -50,000 lots |
| Daily Price Limit | None. |
| Block Enabled | Yes, 50 lot Block Minimum Quantity |
| EFP and EFS Enabled | Yes. |
| IPL Levels | IPL Amount: 180.00 Index Points Recalc Time and Hold Period: 5 seconds |
| NCR and RL Levels | NCR 18.00; RL 150.00; CSLOR12.00 Index Points |
| Clearing Venue | ICE Clear U.S. |

| MSCI World NTR Index Future | |
|---|---|
| Contract Size | \$10 times the MSCI World NTR Index |
| Contract Months | 5 contracts in the March, June, September and December cycle |
| Price Quotation | Index points, to two decimal places |
| Tick Size | 1.00 Index point, equal to \$10.00 per contract; (Block Trades can be done at .01 Index points) |
| Trading Hours | 8:00 pm to 6:00 pm (6:00 pm open on Sunday evening) Preopen starts 30 minutes prior to the start of trading. |
| Last Trading Day | Third Friday of the expiration month. Trading in the expiring contract ceases at 4:15 pm NY time on Last Trading Day. |
| Symbol | MWS |
| Daily Settlement Window | 15:59 to 16:00 NY time |
| Final Settlement | Cash settlement to the closing value of the MSCI World NTR Index on the Last Trading Day for the contract. |
| Position Accountability and Limit Levels | Position Accountability Levels - 20,000 lots in any month Position Limit, All Months Combined - 100,000 lots |
| Daily Price Limit | None. |
| Block Enabled | Yes, 50 lot Block Minimum Quantity |
| EFP and EFS Enabled | Yes. |
| IPL Levels | IPL Amount: 120.00 Index Points Recalc Time and Hold Period: 5 seconds |
| NCR and RL Levels | NCR 12.00; RL 100.00; CSLOR 8.00 Index Points |
| Clearing Venue | ICE Clear U.S. |

| MSCI Europe NTR Index Future | |
|---|---|
| Contract Size | \$10 times the MSCI Europe NTR Index |
| Contract Months | 5 contracts in the March, June, September and December cycle |
| Price Quotation | Index points, to two decimal places |
| Tick Size | 1.00 Index point, equal to \$10.00 per contract; (Block Trades can be done at .01 Index points) |
| Trading Hours | 8:00 pm to 6:00 pm (6:00 pm open on Sunday evening) Preopen starts 30 minutes prior to the start of trading. |
| Last Trading Day | Third Friday of the expiration month. Trading in the expiring contract ceases at 4:15 pm NY time on Last Trading Day. |
| Symbol | EU9 |
| Daily Settlement Window | 15:59 to 16:00 NY time |
| Final Settlement | Cash settlement to the closing value of the MSCI Europe NTR Index on the Last Trading Day for the contract. |
| Position Accountability and Limit Levels | Position Accountability Levels - 20,000 lots in any month Position Limit, All Months Combined - 200,000 lots |
| Daily Price Limit | None. |
| Block Enabled | Yes, 50 lot Block Minimum Quantity |
| EFP and EFS Enabled | Yes. |
| IPL Levels | IPL Amount: 150.00 Index Points Recalc Time and Hold Period: 5 seconds |
| NCR and RL Levels | NCR 15.00; RL120.00; CSLOR 10.00 Index Points |
| Clearing Venue | ICE Clear U.S. |

| MSCI USA GTR Index Future | |
|---|---|
| Contract Size | \$5 times the MSCI USA GTR Index |
| Contract Months | 5 contracts in the March, June, September and December cycle |
| Price Quotation | Index points, to two decimal places |
| Tick Size | 1.00 Index point, equal to \$5.00 per contract; (Block Trades can be done at .01 Index points) |
| Trading Hours | 8:00 pm to 6:00 pm (6:00 pm open on Sunday evening) Preopen starts 30 minutes prior to the start of trading. |
| Last Trading Day | Third Friday of the expiration month. Trading in the expiring contract ceases at 4:15 pm NY time on Last Trading Day. |
| Symbol | USS |
| Daily Settlement Window | 15:59 to 16:00 NY time |
| Final Settlement | Cash settlement to the closing value of the MSCI USA GTR Index on the Last Trading Day for the contract. |
| Position Accountability and Limit Levels | Position Accountability Levels - 20,000 lots in any month Position Limit, All Months Combined - 100,000 lots |
| Daily Price Limit | None. |
| Block Enabled | Yes, 50 lot Block Minimum Quantity |
| EFP and EFS Enabled | Yes. |
| IPL Levels | IPL Amount: 300.00 Index Points Recalc Time and Hold Period: 5 seconds |
| NCR and RL Levels | NCR 30.00; RL 200.00; CSLOR 20.00 Index Points |
| Clearing Venue | ICE Clear U.S. |

| MSCI Canada GTR Index Future | |
|---|---|
| Contract Size | \$10 times the MSCI Canada GTR Index |
| Contract Months | 5 contracts in the March, June, September and December cycle |
| Price Quotation | Index points, to two decimal places |
| Tick Size | 1.00 Index point, equal to \$10.00 per contract; (Block Trades can be done at .01 Index points) |
| Trading Hours | 8:00 pm to 6:00 pm (6:00 pm open on Sunday evening) Preopen starts 30 minutes prior to the start of trading. |
| Last Trading Day | Third Friday of the expiration month. Trading in the expiring contract ceases at 4:15 pm NY time on Last Trading Day. |
| Symbol | CAD |
| Daily Settlement Window | 15:59 to 16:00 NY time |
| Final Settlement | Cash settlement to the closing value of the MSCI Canada GTR Index on the Last Trading Day for the contract. |
| Position Accountability and Limit Levels | Position Accountability Levels - 20,000 lots in any month Position Limit, All Months Combined - 100,000 lots |
| Daily Price Limit | None. |
| Block Enabled | Yes, 50 lot Block Minimum Quantity |
| EFP and EFS Enabled | Yes. |
| IPL Levels | IPL Amount: 180.00 Index Points Recalc Time and Hold Period: 5 seconds |
| NCR and RL Levels | NCR 18.00; RL 150.00; CSLOR 12.00 Index Points |
| Clearing Venue | ICE Clear U.S. |

| MSCI AC Asia ex Japan NTR Index Future | |
|---|---|
| Contract Size | \$100 times the AC MSCI Asia ex Japan NTR Index |
| Contract Months | 5 contracts in the March, June, September and December cycle |
| Price Quotation | Index points, to two decimal places |
| Tick Size | 0.10 Index points, equal to \$10.00 per contract; (Block Trades can be done at .01 Index points) |
| Trading Hours | 8:00 pm to 6:00 pm (6:00 pm open on Sunday evening) Preopen starts 30 minutes prior to the start of trading. |
| Last Trading Day | Third Friday of the expiration month. Trading in the expiring contract ceases at 4:15 pm NY time on Last Trading Day. |
| Symbol | ASI |
| Daily Settlement Window | 15:59 to 16:00 NY time |
| Final Settlement | Cash settlement to the closing value of the MSCI AC Asia ex Japan NTR Index on the Last Trading Day for the contract. |
| Position Accountability and Limit Levels | Position Accountability Levels - 10,000 lots in any month Position Limit, All Months Combined - 50,000 lots |
| Daily Price Limit | None. |
| Block Enabled | Yes, 50 lot Block Minimum Quantity |
| EFP and EFS Enabled | Yes. |
| IPL Levels | IPL Amount: 15.00 Index Points Recalc Time and Hold Period: 5 seconds |
| NCR and RL Levels | NCR 1.50; RL 12.00; CSLOR 1.00 Index Points |
| Clearing Venue | ICE Clear U.S. |

| MSCI Pacific ex Japan NTR Index Future | |
|---|---|
| Contract Size | \$10 times the MSCI Pacific ex Japan NTR Index |
| Contract Months | 5 contracts in the March, June, September and December cycle |
| Price Quotation | Index points, to two decimal places |
| Tick Size | 1.00 Index point, equal to \$10.00 per contract; (Block Trades can be done at .01 Index points) |
| Trading Hours | 8:00 pm to 6:00 pm (6:00 pm open on Sunday evening) Preopen starts 30 minutes prior to the start of trading. |
| Last Trading Day | Third Friday of the expiration month. Trading in the expiring contract ceases at 4:15 pm NY time on Last Trading Day. |
| Symbol | PAC |
| Daily Settlement Window | 15:59 to 16:00 NY time |
| Final Settlement | Cash settlement to the closing value of the MSCI Pacific ex Japan NTR Index on the Last Trading Day for the contract. |
| Position Accountability and Limit Levels | Position Accountability Levels - 10,000 lots in any month Position Limit, All Months Combined - 50,000 lots |
| Daily Price Limit | None. |
| Block Enabled | Yes, 50 lot Block Minimum Quantity |
| EFP and EFS Enabled | Yes. |
| IPL Levels | IPL Amount: 150.00 Index Points Recalc Time and Hold Period: 5 seconds |
| NCR and RL Levels | NCR 15.00; RL 120.00; CSLOR 10.00 Index Points |
| Clearing Venue | ICE Clear U.S. |

Exhibit B

In the text below, additions are underlined and deletions are struck through.

MSCI INDEX FUTURES AND OPTIONS

TABLE OF CONTENTS

| Rule | Subject |
|--|---|
| 23.1. Scope of Chapter | |
| 23.2 Trading Specifications | |
| 23.3 Termination of Trading | |
| 23.4 Cash Settlement Procedures | |
| 23.5 Notice Regarding MSCI | |
| Sub-Chapter A | MSCI INDEX FUTURES CONTRACTS |
| 23.A.001 | MSCI EAFE INDEX FUTURES |
| 23.A.002 | MSCI EMERGING MARKETS INDEX FUTURES |
| 23.A.003 | MSCI USA INDEX FUTURES |
| 23.A.004 | MSCI USA VALUE INDEX FUTURES |
| 23.A.005 | MSCI USA GROWTH INDEX FUTURES |
| 23.A.006 | MSCI EAFE NTR INDEX FUTURES |
| 23.A.007 | MSCI EMERGING MARKETS NTR INDEX FUTURES |
| 23.A.008 | MSCI EUROPE INDEX FUTURES |
| 23.A.009 | MSCI EUROPE VALUE INDEX FUTURES |
| 23.A.010 | MSCI EUROPE GROWTH INDEX FUTURES |
| 23.A.011 | MSCI EURO INDEX FUTURES |
| 23.A.012 | MSCI PAN-EURO INDEX FUTURES |
| 23.A.013 | MSCI CANADA INDEX FUTURES |
| 23.A.014 | MSCI WORLD INDEX FUTURES |
| 23.A.015 | MSCI EMERGING MARKETS LATIN AMERICA INDEX FUTURES |
| 23.A.016 | MSCI ACWI INDEX FUTURES |
| 23.A.017 | MSCI ACWI EX-US INDEX FUTURES |

| | |
|------------------------|--|
| 23.A.018 | MSCI EMERGING MARKETS ASIA INDEX FUTURES |
| 23.A.019 | MSCI ACWI NTR INDEX FUTURES |
| 23.A.020 | MSCI ACWI EX-US NTR INDEX FUTURES |
| 23.A.021 | MSCI EMERGING MARKETS ASIA (“EM ASIA”) NTR INDEX FUTURES |
| 23.A.022 | MSCI USA SMALL CAP INDEX FUTURES |
| 23.A.023 | MSCI EMERGING MARKETS NTR INDEX (EUR) FUTURES |
| 23.A.024 | MSCI EMERGING MARKETS EMEA NTR INDEX FUTURES |
| 23.A.025 | MSCI EMERGING MARKETS LatAm NTR INDEX FUTURES |
| 23.A.026 | MSCI CHINA FREE NTR INDEX FUTURES |
| 23.A.027 | MSCI INDIA NTR INDEX FUTURES |
| 23.A.028 | MSCI MEXICO NTR INDEX FUTURES |
| <u>23.A.029</u> | <u>MSCI PACIFIC NTR INDEX FUTURES</u> |
| <u>23.A.030</u> | <u>MSCI NORTH AMERICA NTR INDEX FUTURES</u> |
| <u>23.A.031</u> | <u>MSCI WORLD NTR INDEX FUTURES</u> |
| <u>23.A.032</u> | <u>MSCI BRAZIL NTR INDEX FUTURES</u> |
| <u>23.A.033</u> | <u>MSCI EUROPE NTR INDEX FUTURES</u> |
| <u>23.A.034</u> | <u>MSCI USA GTR INDEX FUTURES</u> |
| <u>23.A.035</u> | <u>MSCI CANADA GTR INDEX FUTURES</u> |

Sub-Chapter B

MSCI INDEX OPTION CONTRACTS

| | |
|---------|---------------------------------|
| 23.B.01 | Scope |
| 23.B.02 | Obligations of Option Purchaser |
| 23.B.03 | Obligations of Option Grantors |
| 23.B.04 | Months Traded |
| 23.B.05 | Last Trading Day |
| 23.B.06 | Strike Prices |
| 23.B.07 | Premium Quotations |
| 23.B.08 | Exercise of Options |
| 23.B.09 | Expiration |
| 23.B.10 | Assignment |

CHAPTER 23

MSCI INDEX FUTURES AND OPTIONS

23.1 Scope of Chapter

This chapter is limited in application to trading of MSCI Index Futures Contracts. The procedures for trading, clearing, settlement, and any other matters not specifically covered herein shall be governed by the general Rules of the Exchange.

Each MSCI Index referenced in this chapter is subject to change by MSCI, Inc. as set forth in the MSCI Global Investable Market Indices Methodology: *Index Construction Objectives, Guiding Principles and Methodology for the MSCI Global Investable Market Indices* as that document is amended, updated and replaced from time-to-time. Pursuant to the terms of the license granted by MSCI to the Exchange, under certain circumstances, the Exchanges may become responsible for maintaining, changing or amending the index upon which the Futures specified in this Chapter is valued.

The terms and conditions of the Futures Contracts specified in this Chapter are deemed to include any relevant governmental, regulatory or court decree or order as recognized by the Exchange in a Notice to Members.

23.2 Months Traded

In the absence of any other provisions in the respective Sub-Chapter for a particular MSCI Index Futures Contract, trading in the MSCI Index Futures Contracts shall be conducted in March, June, September and December delivery months. The number of months open for trading at a given time shall be determined by the Exchange.

23.3 Last Trading Day

In the absence of any other provisions in the respective Sub-Chapter for a particular MSCI Index Futures Contract, the last day of trading for each MSCI Index Futures Contract shall be the third Friday of the contract month.

23.4 Cash Settlement Procedures

(a) Settlement

MSCI Index Futures Contracts open at the termination of trading shall be cash settled as set forth in paragraph (b) of this Rule using the Final Settlement Value for the respective MSCI Index Futures Contract. Unless provided otherwise in the Sub-Chapter for an MSCI Index Futures Contract, the Final Settlement Value for purposes of the contract's cash settlement shall be the relevant underlying MSCI Index as calculated by MSCI rounded to the nearest 1/100th of an index point. This value shall be based on the closing prices of the stocks at their respective primary exchanges on the third Friday of the contract month. Closing prices shall be converted from local currency to U.S. dollars based on the spot exchange rate provided by Reuters at 4:00 pm London time on the day of the Final Settlement Price calculation. If a component stock in the index does not trade on the day scheduled for determination of the Final Settlement Price while the primary market for that stock is open for trading, the price of that stock shall be determined, for the purposes of calculating the Final Settlement Price, based on the most recent closing price of that stock. If one or more primary exchange(s) are not scheduled to be open for trading on the

day of the final settlement calculation, the prices of those stocks shall all be based on the most recent closing prices. All closing prices will be converted from local currency to U.S. Dollars based on the spot exchange rate provided by Reuters at 4:00 pm London time on the day of Final Settlement Price calculation.

(b) Final Settlement Payment

Payment in final settlement of an MSCI Index Futures Contract will be made in accordance with the Clearing Organization Rules on the Business Day following the termination of trading by Clearing Members with open positions at the time of termination of trading of the MSCI Index Futures Contract. The amount of the final settlement payment to be made or received will be calculated based on the final settlement value as a normal variation payment.

23.5 Notice Regarding MSCI

The MSCI Index Futures are not sponsored, endorsed, sold or promoted by MSCI Inc. (“MSCI”), any affiliate of MSCI or any other party involved in, or related to, making or compiling any Indexes. The MSCI Index Futures have not been passed on by MSCI, any of its affiliates or any other party involved in, or related to, making or compiling any Indexes as to their legality or suitability with respect to any person or entity. MSCI, its affiliates and any other party involved in, or related to, making or compiling the MSCI Indexes do not guarantee the originality, accuracy and/or completeness of the MSCI Indexes or any data included therein. Neither MSCI, any of its affiliates nor any other party involved in, or related to, making or compiling the MSCI Indexes makes any express or implied warranties, and expressly disclaims all warranties of merchantability and fitness for a particular purpose or use with respect to the related Futures Contract, the MSCI Index or any data included therein. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any other party involved in, or related to, making or compiling the MSCI Indexes have any liability for any direct, special, punitive, indirect, or consequential damages, claims, losses or expenses relating to any futures or options contracts or caused by any errors or delays in calculating or disseminating the MSCI Indexes. Neither MSCI, any of its affiliates nor any other party involved in, or related to, making or compiling the MSCI Indexes has any obligation to take the needs of the issuers of the Contracts, the owners of the MSCI Index Futures or the Exchange into consideration in determining, composing or calculating any MSCI Indexes. Neither MSCI its affiliates nor any other party involved in, or related to, making or compiling the MSCI Indexes is responsible for or have participated in the determination of the timing of, prices at, or quantities of the MSCI Index Futures to be issued or in the determination or calculation of the equation by which the MSCI Index Futures are redeemable for cash.

* * *

23.A.029 MSCI PACIFIC NTR INDEX FUTURES

Trading Schedule

The hours of trading in MSCI Pacific NTR Index Futures Contracts shall be determined by the Exchange. On the last day of trading in an expiring future, the closing time for such future shall be 4:15 p.m. New York time.

Trading Unit

The unit of trading shall be \$10.00 times the MSCI Pacific NTR Index.

Price Increments

The minimum price fluctuation for the MSCI Pacific NTR Index Futures shall be 1.00 Index Points, which is \$10.00 per contract. Contracts shall not be made on any other price basis with the exception of certain Block Trades as may be specified by the Exchange, in which case the minimum price fluctuation shall be 0.01 Index Points, which is \$0.10 per contract.

23.A.030 MSCI NORTH AMERICA NTR INDEX FUTURES

Trading Schedule

The hours of trading in MSCI North America NTR Index Futures Contracts shall be determined by the Exchange. On the last day of trading in an expiring future, the closing time for such future shall be 4:15 p.m. New York time.

Trading Unit

The unit of trading shall be \$10.00 times the MSCI North America NTR Index.

Price Increments

The minimum price fluctuation for the MSCI North America NTR Index Futures shall be 1.00 Index Points, which is \$10.00 per contract. Contracts shall not be made on any other price basis with the exception of certain Block Trades as may be specified by the Exchange, in which case the minimum price fluctuation shall be 0.01 Index Points, which is \$0.10 per contract.

23.A.031 MSCI WORLD NTR INDEX FUTURES

Trading Schedule

The hours of trading in MSCI World NTR Index Futures Contracts shall be determined by the Exchange. On the last day of trading in an expiring future, the closing time for such future shall be 4:15 p.m. New York time.

Trading Unit

The unit of trading shall be \$10.00 times the MSCI World NTR Index.

Price Increments

The minimum price fluctuation for the MSCI World NTR Index Futures shall be 1.00 Index Points, which is \$10.00 per contract. Contracts shall not be made on any other price basis with the exception of certain Block Trades as may be specified by the Exchange, in which case the minimum price fluctuation shall be 0.01 Index Points, which is \$0.10 per contract.

23.A.032 MSCI EUROPE NTR INDEX FUTURES

Trading Schedule

The hours of trading in MSCI Europe NTR Index Futures Contracts shall be determined by the Exchange. On the last day of trading in an expiring future, the closing time for such future shall be 4:15 p.m. New York time.

Trading Unit

The unit of trading shall be \$10.00 times the MSCI Europe NTR Index.

Price Increments

The minimum price fluctuation for the MSCI Europe NTR Index Futures shall be 1.00 Index Points, which is \$10.00 per contract. Contracts shall not be made on any other price basis with the exception of certain Block Trades as may be specified by the Exchange, in which case the minimum price fluctuation shall be 0.01 Index Points, which is \$0.10 per contract.

23.A.033 MSCI USA GTR INDEX FUTURES

Trading Schedule

The hours of trading in MSCI USA GTR Index Futures Contracts shall be determined by the Exchange. On the last day of trading in an expiring future, the closing time for such future shall be 4:15 p.m. New York time.

Trading Unit

The unit of trading shall be \$5.00 times the MSCI USA GTR Index.

Price Increments

The minimum price fluctuation for the MSCI USA GTR Index Futures shall be 1.00 Index Points, which is \$5.00 per contract. Contracts shall not be made on any other price basis with the exception of certain Block Trades as may be specified by the Exchange, in which case the minimum price fluctuation shall be 0.01 Index Points, which is \$0.05 per contract.

Trading Halts on Underlying Securities Exchanges

On any Business Day when a general trading halt occurs on the New York Stock Exchange, Inc. (“NYSE”) pursuant to NYSE Rule 80B, or any other relevant national securities exchange, trading in the MSCI USA Small Cap Index Futures shall be halted. Once trading in the primary securities markets resumes after an NYSE Rule 80B trading halt or similar rule on another relevant national securities exchange, trading in the MSCI USA Small Cap Index Futures Contracts shall resume and the next applicable price limit shall apply.

23.A.034 MSCI CANADA GTR INDEX FUTURES

Trading Schedule

The hours of trading in MSCI Canada GTR Index Futures Contracts shall be determined by the Exchange. On the last day of trading in an expiring future, the closing time for such future shall be 4:15 p.m. New York time.

Trading Unit

The unit of trading shall be \$10.00 times the MSCI Canada GTR Index.

Price Increments

The minimum price fluctuation for the MSCI Canada GTR Index Futures shall be 1.00 Index Points, which is \$10.00 per contract. Contracts shall not be made on any other price basis with the exception of certain Block Trades as may be specified by the Exchange, in which case the minimum price fluctuation shall be 0.01 Index Points, which is \$0.10 per contract.

23.A.035 MSCI AC ASIA EX JAPAN NTR INDEX FUTURES

Trading Schedule

The hours of trading in MSCI AC Asia ex Japan NTR Index Futures Contracts shall be determined by the Exchange. On the last day of trading in an expiring future, the closing time for such future shall be 4:15 p.m. New York time.

Trading Unit

The unit of trading shall be \$100.00 times the MSCI AC Asia ex Japan NTR Index.

Price Increments

The minimum price fluctuation for the MSCI AC Asia ex Japan NTR Index Futures shall be 0.10 Index Points, which is \$10.00 per contract. Contracts shall not be made on any other price basis with the exception of certain Block Trades as may be specified by the Exchange, in which case the minimum price fluctuation shall be 0.01 Index Points, which is \$1.00 per contract.

23.A.036 MSCI PACIFIC EX JAPAN NTR INDEX FUTURES

Trading Schedule

The hours of trading in MSCI Pacific ex Japan NTR Index Futures Contracts shall be determined by the Exchange. On the last day of trading in an expiring future, the closing time for such future shall be 4:15 p.m. New York time.

Trading Unit

The unit of trading shall be \$10.00 times the MSCI Pacific ex Japan NTR Index.

Price Increments

The minimum price fluctuation for the MSCI Pacific ex Japan NTR Index Futures shall be 1.00 Index Points, which is \$10.00 per contract. Contracts shall not be made on any other price basis with the exception of certain Block Trades as may be specified by the Exchange, in which case the minimum price fluctuation shall be 0.01 Index Points, which is \$0.10 per contract.

Rule 6.25. Position Limits for Index Contracts

- (a) Credit Index Contracts

(i) Subject to the exceptions contained in this Chapter, the maximum number of Exchange Futures Contracts, net long or net short, which any one (1) Person may hold or control in any Credit Index Futures Contract identified in Chapter 28 of the Rules shall be as follows:

Eris CDX IG Credit Futures: fifty thousand (50,000) in all months combined or in any one month

Eris CDX HY Credit Futures: ten thousand (10,000) in all months combined or in any one month

(b) MSCI Index Contracts.

(i) MSCI EAFE Index Contracts

MSCI EAFE NTR Index Contracts

Subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 100,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in all contract months combined. Additionally, a person holding or controlling 50,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month, ~~[including the spot month,]~~ (i) automatically consents not to increase further and automatically consents to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that Person's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such other relevant information as the Exchange may require. For the purposes of determining a Person's position under this rule, the Exchange will combine all long or short positions in MSCI EAFE Index Futures and Options and MSCI EAFE NTR Index Futures and Options.

(ii) MSCI ACWI Index Contracts

MSCI ACWI NTR Index Contracts

Subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 100,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in all contract months combined. Additionally, a person holding or controlling 50,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month, ~~[including the spot month,]~~ (i) automatically consents not to increase further and automatically consents to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that Person's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such other relevant information as the Exchange may require. For the purposes of determining a Person's position under this rule, the Exchange will combine all long or short positions in MSCI EAFE Index Futures and Options and MSCI EAFE NTR Index Futures and Options.

(iii) MSCI Emerging Markets Index Contracts

MSCI Emerging Markets NTR Index Contracts

Subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 200,000 Futures Contracts and Futures Equivalent Contracts net long or net short in all contract months combined. Additionally, a person holding or controlling 50,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month, ~~[including the spot month,]~~ (i) automatically consents not to increase further and automatically consents to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that Person's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such

other relevant information as the Exchange may require. For the purpose of determining a Person's position under this rule, the Exchange will combine all long or short positions in MSCI Emerging Markets Index Futures and options and MSCI Emerging Markets NTR Index Futures and options.

- (iv) MSCI Europe Index Contracts
MSCI Europe NTR Index Contracts

Subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 200,000 Futures Contracts and Futures Equivalent Contracts net long or net short in all contract months combined. Additionally, a person holding or controlling 50,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month, ~~[including the spot month,]~~(i) automatically consents not to increase further and automatically consents to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that Person's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such other relevant information as the Exchange may require. For the purpose of determining a Person's position under this rule, the Exchange will combine all long and short positions in MSCI Europe Index Futures and options and MSCI Europe NTR Index Futures and options.

- (v) MSCI USA Index Contracts
MSCI USA Value Index Contracts
MSCI USA Growth Index Contracts
MSCI USA GTR Index Contracts

Subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 100,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in all contract months combined. Additionally, a person holding or controlling 20,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month, ~~[including the spot month,]~~(i) automatically consents not to increase further and automatically consents to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that Person's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such other relevant information as the Exchange may require. For the purpose of determining a person's position under this rule, the Exchange will combine all long or short positions in MSCI USA Index Futures and Options, MSCI USA Value Index Futures and Options, ~~[and]~~ MSCI USA Growth Index Futures and Options, and MSCI USA GTR Index Futures and Options.

- (vi) MSCI Emerging Markets Asia Index
MSCI Emerging Markets Asia NTR Index Contracts

Subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 100,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in all months combined. Additionally, a person holding or controlling 20,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month, ~~[including the spot month,]~~(i) automatically consents not to increase further and automatically consents to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that Person's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such other relevant information as the Exchange may require. For the purpose of determining a Person's

position under this rule, the Exchange will combine all long and short positions in MSCI Emerging Markets Asia Index Futures and options and MSCI Emerging Markets Asia NTR Index Futures and options.

- (vii) MSCI ASCI ACWI Ex-US Index Contracts
MSCI ASCI ACWI Ex-US NTR Index Contracts

Subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 50,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month or all months combined. For the purpose of determining a Person's position under this rule, the Exchange will combine all long and short positions in MSCI ACWI Ex-US Index Futures and MSCI ACWI Ex-US NTR Index Futures.

- (viii) MSCI Europe Value Index Contracts
MSCI Europe Growth Index Contracts
MSCI Euro[pe] Index Contracts
MSCI Pan-Euro Index Contracts
~~MSCI World Index Contracts~~

Separately for each contract listed above and subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 20,000 Exchange Futures Contracts and Futures-Equivalent contracts net long or net short in any single contract month or all months combined.

- (ix) ~~MSCI Canada Index Contracts~~
MSCI Emerging Markets Latin America Index Contracts

~~Separately for each contract listed above and s~~ Subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 10,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month or all months combined.

- (x) MSCI USA Small Cap Index Contracts
MSCI Emerging Markets NTR Index Contracts (EUR)

Separately for each contract listed above and subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 100,000 Futures Contracts and Futures Equivalent Contracts net long or net short in all contract months combined. Additionally, a person holding or controlling 20,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month, ~~including the spot month,~~ (i) automatically consents not to increase further and automatically consents to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that Person's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such other relevant information as the Exchange may require.

- (xi) MSCI Emerging Markets EMEA NTR Index Contracts
MSCI Mexico NTR Index Contracts
MSCI India NTR Index Contracts

MSCI EM LatAm NTR Index Contracts
MSCI China Free NTR Index Contracts
MSCI North America NTR Index Contracts
MSCI Pacific NTR Index Contracts
MSCI AC Asia ex Japan NTR Index Contracts
MSCI Pacific ex Japan NTR Index Contracts

Separately for each contract listed above and subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 50,000 Futures Contracts and Futures Equivalent Contracts net long or net short in all contract months combined. Additionally, a person holding or controlling 10,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month, ~~[including the spot month,]~~(i) automatically consents not to increase further and automatically consents to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that Person's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such other relevant information as the Exchange may require.

(xii) MSCI Canada Index Contracts

MSCI Canada GTR Index Contracts

Subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 100,000 Futures Contracts and Futures Equivalent Contracts net long or net short in all contract months combined. Additionally, a person holding or controlling 20,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month, (i) automatically consents not to increase further and automatically consents to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that Person's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such other relevant information as the Exchange may require. For the purpose of determining a Person's position under this rule, the Exchange will combine all long and short positions in MSCI Canada Index Futures and options and MSCI Canada GTR Index Futures and options.

(xiii) MSCI World Index Contracts

MSCI World NTR Index Contracts

Subject to the provisions of this chapter of the Rules, no Person shall own or control positions in excess of 100,000 Futures Contracts and Futures Equivalent Contracts net long or net short in all contract months combined. Additionally, a person holding or controlling 20,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month, (i) automatically consents not to increase further and automatically consents to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that Person's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such other relevant information as the Exchange may require. For the purpose of determining a Person's position under this rule, the Exchange will combine all long and short positions in MSCI World Index Futures and options and MSCI World NTR Index Futures and options.

(c) NYSE Arca Gold Miners Index

(i) Subject to the exceptions contained in this Chapter, the maximum number of Exchange Futures Contracts and Futures Equivalent Contracts, net long or net short, which any one (1) Person may hold or control in the NYSE Arca Gold Miners Index Contract is ten thousand (10, 000) in all months combined or in any one month.

(d) NYSE FANG+ Index Futures

(i) Subject to the exceptions contained in this Chapter, no Person shall own or control positions in excess of 100,000 Futures Contracts and Futures Equivalent Contracts net long or net short in all contract months combined. Additionally, a person holding or controlling 20,000 Exchange Futures Contracts and Futures-Equivalent Contracts net long or net short in any single contract month, including the spot month, (i) automatically consents not to increase further and automatically consents to decrease those positions when so ordered by the Exchange acting in its own discretion and (ii) shall provide, in a timely manner, information on the nature of that Person's related cash position, Exchange Futures and Options position, trading strategy and/or hedging strategy and such other relevant information as the Exchange may require.

EXHIBIT C

ICE Futures U.S., Inc. Reasonability Limits and No Cancellation Ranges - As of [~~NOVEMBER 2018~~] APRIL 8, 2019

The ICE Futures U.S. Error Policy includes Reasonability Limit (“RL”), No Cancellation Range (“NCR”) and Calendar Spread Stop Limit Order (“CSLOR”) levels for futures and options contracts. The levels shown below are subject to change without prior notification.

**ICE Futures U.S. – Energy Division No Cancellation Ranges
(Maximum Number of Ticks from Market Value expressed as Price Difference)**

| Financial Gas Products | Day | Spread | Month | Spread | Season | Spread | Calendar | Spread |
|--|---|---------------|-------------------------------|--------------------------------|-------------------------------|---------------|-----------------------------------|---------------|
| Henry Hub | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| Non-Henry Fixed Price | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| UK Natural Gas | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| Index | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Index Bidweek (Prompt Month only) | | | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| EIA Financial Weekly Index | 10 BCF | 10 BCF | 10 BCF | 10 BCF | 10 BCF | 10 BCF | 10 BCF | 10 BCF |
| EIA End of Draw / Storage Index | 250 BCF | 250 BCF | 250 BCF | 250 BCF | 250 BCF | 250 BCF | 250 BCF | 250 BCF |
| Financial LNG | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| Basis | 20% of Basis/Spread FMV up to 0.05 | | | | Min/Max Range = 0.02/0.05 | | | |
| Fin Natural Gas Combos | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Options | 20% of Premium FMV up to 0.05 | | | | Min/Max Range = 0.005/0.05 | | | |
| Financial Power Products | BalDay/ NextDay/ BalWeek | Spread | Weekly & Balmo | Spread | Month & Season | Spread | Quarter & Calendar | Spread |
| PJM WHRT, Indiana RT, Nepoch DA | 5.00 | 5.00 | 2.00 | 2.00 | 0.60 | 0.60 | 0.40 | 0.40 |
| All other contracts | 5.00 | 5.00 | 2.00 | 2.00 | 1.00 | 1.00 | 0.60 | 0.60 |
| Post Daily LMP Publish | 0.05 | 0.05 | | | | | | |
| Capacity Resp. Reserve | | | | | 1.00 | 1.00 | 0.60 | 0.60 |
| In-City or Rest of State Cap. | | | | | 1.00 | 1.00 | 0.60 | 0.60 |
| Non-Spinning Reserve | | | | | 1.00 | 1.00 | 1.60 | 0.60 |
| Regulation | | | | | 1.00 | 1.00 | 0.60 | 0.60 |
| Heat Rate | | | | | 0.30 | | 0.30 | |
| DART | | | | | 0.60 | | 0.40 | |
| Daily Load Forecast | 5,000 MW | | | | | | | |
| Options | 20% of Premium FMV up to 5.00 | | | | Min/Max Range = 0.50/5.00 | | | |
| US Environmental Products | | | Month | Option | | | Min/Max Range | |
| RGGI | | | 0.10 | 20% of Premium FMV up to 0.10 | | | 0.05/0.10 | |
| CAR-CRT, CFI-US, REC-NJ, TX REC, MD REC, PA AEC, PJM TRI-QEC | | | 0.25 | 20% of Premium FMV up to 0.25 | | | 0.05/0.25 | |
| CCA, OCA(Ontario) | | | 0.25 | 20% of Premium FMV up to 0.25 | | | 0.01/0.25 | |
| SFI | | | 0.50 | 20% of Premium FMV up to 0.50 | | | 0.05/0.50 | |
| CT & MA REC, NEPOOL REC | | | 1.00 | 20% of Premium FMV up to 1.00 | | | 0.05/1.00 | |
| CSAPR SO2 & NOX | | | 10.00 | 20% of Premium FMV up to 10.00 | | | 0.50/10.00 | |
| MA, MD, NJ & PA SAEC, MA SREC Carve Out; CAIR NOX, LCFS | | | 5.00 | 20% of Premium FMV up to 5.00 | | | 0.50/5.00 | |

| Oil and NGL Futures | Code | Unit | NCR 1-6M | Spread | NCR 7M+ | Spread |
|---|-------------|-------------|---------------------|---------------|--------------------|---------------|
| Crude Diff – Argus LLS vs WTI 1st Line Future | ARK | bbl | \$0.200 | \$0.200 | \$0.500 | \$0.500 |
| Argus Mars vs WTI Trade Month Future | ARW | bbl | \$0.200 | \$0.200 | \$0.500 | \$0.500 |
| Crude Diff – Argus WTS vs WTI Trade Month Future | AVT | bbl | \$0.200 | \$0.200 | \$0.500 | \$0.500 |
| Crude Diff – WTI 1st Line vs Brent 1st Line Future | BTD | bbl | \$0.200 | \$0.200 | \$0.200 | \$0.200 |
| Fuel Oil Diff – New York 1% Fuel Oil (Platts) vs USGC HSFO (Platts) Future | FOD | bbl | \$0.150 | \$0.100 | \$0.200 | \$0.150 |
| Fuel Oil Outright – New York 1% Fuel Oil Future | FOW | bbl | \$0.200 | \$0.100 | \$0.300 | \$0.200 |
| Fuel Oil Crack – USGC HSFO (Platts) vs Brent 1st Line Future | GCS | bbl | \$0.200 | \$0.150 | \$0.300 | \$0.200 |
| Gasoline Diff – Group 3 Sub-octane Gasoline (Platts) vs RBOB Gasoline 1st Line Future | GDL | gal | \$0.008 | \$0.008 | \$0.008 | \$0.008 |
| Gasoline Diff – Gulf Coast CBOB 87 Gasoline Prompt Pipeline (Platts) vs RBOB Gasoline 1st Line Future | GDM | gal | \$0.008 | \$0.008 | \$0.008 | \$0.008 |
| Gasoline Diff – RBOB Gasoline 1st Line vs Argus Eurobob Oxy FOB Rotterdam Barge Future | GDO | MT | \$0.750 | \$0.500 | \$1.500 | \$1.000 |
| Gasoline Diff – RBOB Gasoline 1st Line vs Argus Eurobob Oxy FOB Rotterdam Barges Mini Future | GDQ | MT | \$0.750 | \$0.500 | \$1.500 | \$1.000 |
| Fuel Oil Diff – USGC HSFO (Platts) vs Fuel Oil 3.5% FOB Rotterdam Barges (Platts) Future (in Bbls) | GOE | bbl | \$0.150 | \$0.100 | \$0.200 | \$0.150 |
| Diesel Diff – Gulf Coast ULSD vs Heating Oil 1st Line Future | GOH | gal | \$0.008 | \$0.005 | \$0.008 | \$0.008 |
| Fuel Oil Crack – USGC HSFO (Platts) vs WTI 1st Line Future | GUF | bbl | \$0.200 | \$0.150 | \$0.300 | \$0.200 |
| Heating Oil Crack – Heating Oil 1st Line vs Brent 1st Line Future (in Bbls) | HBT | bbl | \$0.250 | \$0.100 | \$0.300 | \$0.200 |
| Jet Fuel Diff – Gulf Coast Jet Fuel vs Heating Oil 1st Line Future | JHO | gal | \$0.008 | \$0.005 | \$0.008 | \$0.008 |
| Crude Diff – Argus WTI Midland vs WTI 1st Line Future | MLT | bbl | \$0.200 | \$0.200 | \$0.500 | \$0.500 |
| Fuel Oil Diff – USGC HSFO (Platts) vs Fuel Oil 3.5% FOB Rotterdam Barges (Platts) Future (in MTs) | NVV | MT | \$0.750 | \$0.500 | \$1.500 | \$1.000 |
| Crude Outright – WTI 1st Line Future | R | bbl | \$0.300 | \$0.200 | \$0.300 | \$0.200 |
| Fuel Oil Outright – USGC HSFO (Platts) Future | RBO | bbl | \$0.200 | \$0.100 | \$0.300 | \$0.200 |
| Gasoline Crack – RBOB Gasoline 1st Line vs Brent 1st Line Future (in Bbls) | RBR | bbl | \$0.300 | \$0.200 | \$0.400 | \$0.300 |
| Heating Oil Arb – Heating Oil 1st Line vs Low Sulphur Gasoil 1st Line Future (in Bbls) | ULM | bbl | \$0.008 | \$0.005 | \$0.008 | \$0.008 |
| Gasoline Diff – Gulf Coast Unl 87 Gasoline Prompt Pipeline (Platts) vs RBOB Gasoline 1st Line Future | UM1 | bbl | \$0.250 | \$0.200 | \$0.200 | \$0.200 |

For any Oil or NGL future not listed above the following NCR's are applied:

| Contract | NCR 1-6M | Spread | NCR 7M+ | Spread |
|----------------------|----------|--------|---------|--------|
| Oil (Barrels or lbs) | 0.2500 | 0.2000 | 0.2000 | 0.2000 |
| Oil (MT) | 0.7500 | 0.5000 | 1.5000 | 1.0000 |
| Oil (Gallons) | 0.0080 | 0.0080 | 0.0080 | 0.0080 |
| Oil (RIN) | 0.0200 | 0.0200 | 0.0200 | 0.0200 |

| Contract | Pricing Month | Month | Spread | Quarters | Spread | Calendar | Spread |
|-----------------------------------|---------------|--------|--------|----------|--------|----------|--------|
| NGL (North American) (Gallons) ** | 0.0025 | 0.0050 | 0.0050 | 0.0050 | 0.0050 | 0.0050 | 0.0050 |
| Olefins | N/A | 0.0050 | 0.0050 | 0.0050 | 0.0050 | 0.0050 | 0.0050 |
| Aromatics | N/A | 0.0100 | 0.0100 | 0.0100 | 0.0100 | 0.0100 | 0.0100 |
| LPG (International) (MT) | N/A | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |

**For all trades executed after five US business days into the current pricing month, NCR shall be \$0.0025/gallon.

| Oil and NGL Options | No Cancellation Range | Minimum Value NCR - Conversions and Reversals | Maximum Value |
|--------------------------|-----------------------|---|---------------|
| Natural Gas Liquids | 25% of premium | 0.0050 | 0.0250 |
| LPG (International) (MT) | 25% of premium | 0.0625 | 0.3125 |
| All Other Oil Options | 25% of premium | 0.1000 | 1.00 |
| WTI Options | 25% of premium | 0.1000 | 1.00 |
| Gasoil Options | 25% of premium | 0.1000 | 10.00 |
| Heating Oil Options | 25% of premium | 0.0010 | 0.0200 |

The preferred resolution for option trades, excluding Conversions and Reversals, executed greater than 3 * NCR from fair market value is Trade Cancellation.

User Defined Strategies (UDS) will be evaluated on the basis of the strategy unless there are implied deals in which case each leg of the UDS will be evaluated independently.

User Defined Strategies (UDS) will be evaluated on the basis of the strategy unless there are implied deals in which case each leg of the UDS will be evaluated independently.

ICE Futures U.S. – Energy Division Reasonability Limit Levels

| Gas Products | Reasonability Limit | Reasonability Limit Exceptions |
|-----------------------------------|---------------------|---|
| Henry Hub | \$0.15 | N/A |
| UK Natural Gas | \$0.08 | |
| EIA Financial Weekly Index | 50 BCF | |
| EIA End of Draw/Storage Index | 1,000 BCF | |
| Financial LNG | \$0.30 | |
| Fixed Price (not including Henry) | \$2.00 | <p>Reasonability Limit: \$5.00 Dominion South Swing (DSS) Lebanon Swing (LBN)</p> <p>Reasonability Limit: \$10.00 Algonquin Citygates Swing (ALS) Chicago Swing (CSS) NNG Demarc Swing (DES) Iroquois (Into) Swing (Platts) (IRS)</p> |

| | | |
|-------|--------|---|
| | | Iroquois-Z2 Swing (Platts) (IZS) NNG Ventura Swing (NNS) PG&E Citygate Swing (PIG) Transco Zone 6 (non NY) Swing (TPS) TETCO M3 Swing (TSS) Transco Zone 6 (NY) Swing (ZSS) |
| Basis | \$2.00 | <u>Reasonability Limit: \$5.00</u> Dominion South Basis (DOM) <u>Reasonability Limit: \$10.00</u> Algonquin Citygates Basis (ALQ) NNG Demarc Basis (DEM) Chicago Basis (DGD) Union Dawn Basis (DWN) Iroquois (Into) Basis (Platts) (IRB) Iroquois-Z2 Basis (Platts) (IZB) PG&E Citygate Basis (PGE) TETCO M3 Basis (TMT) Transco Zone 6 (non NY) Basis (TPB) Transco Zone 6 (NY) Basis (TZS) |
| Index | \$0.10 | <u>Reasonability Limit: \$10.00</u> AB NIT Index (AIS) Algonquin Citygates Index (ALI) ANR SW (Oklahoma) Index (AOI) ANR SE (Louisiana) Index (API) CG-Mainline Index (CGI) Chicago Index (CIS) CIG Rockies Index (CRC) Enable Gas Index (CTI) NNG Demarc Index (DEI) Dominion South Index (DIS) PG&E Citygate Index (EIS) Florida Gas Zone 3 Index (FTI) Henry Index (HIS) Iroquois (Into) Index (Platts) (IRI) Iroquois-Z2 Index (Platts) (IZI) NGPL Midcont Index (MCI) Malin Index (MIS) TETCO M3 Index (MTI) NWP Sumas Index (NIS) Michcon Index (NMI) NNG Ventura Index (NNI) Transco Zone 6 (NY) Index (NSI) NGPL TXOK Index (NTI) NGPL STX Index (NXI) ONEOK Gas Transportation Index (ONI) Southern Star TX OK KS Index (OUI) EP Permian Index (PEI) Panhandle Index (PIS) NWP Rockies Index (RSI) Socal Citygate Index (SCI) HSC Index (SHS) Transco Station 65 (Zone 3) Index (SIA) Socal Border Index (SIS) EP San Juan Index (SNI) Sonat Index (SOI) TETCO STX Index (SXI) TETCO ELA Index (TEI) Tennessee 500L Index (TFI) TGT Zone 1 Index (TGI) TCO Index (TIS) Transco Zone 6 (non NY) Index (TPI) Transco Station 85 (Zone 4) Index (TRI) TETCO WLA Index (TWI) Tennessee Zone 0 Index (TZI) Waha Index (WAI) |

| Power Products | Reasonability Limit | Reasonability Limit Exceptions |
|-----------------------------------|---------------------|---|
| Financial Power | \$20.00 | N/A |
| Capacity Responsive Reserve | \$10.00 | N/A |
| In-City or Rest of State Capacity | \$10.00 | N/A |
| Non-Spinning Reserve | \$10.00 | N/A |
| Regulation | \$10.00 | N/A |
| All Daily Power Contracts | \$100.00 | ERCOT North 345KV Real-Time Peak Daily Fixed Price (END) - \$200.00 |
| All Daily Load Forecast | 20,000 MW | N/A |

| U.S. Environmental Products | Reasonability Limit | Reasonability Limit Exceptions |
|--|---------------------|--------------------------------|
| RGGI | \$0.50 | N/A |
| CAR-CRT, CFI-US, REC-NJ & CCA; TX REC; PJM TRI-QEC, OCA(Ontario), MD REC, PA AEC | \$1.25 | |
| SFI | \$2.50 | |
| CT & MA REC, MD & PA SAEC, NEPOOL Rec | \$5.00 | |
| CSAPR SO2 & NOX | \$30.00 | |
| MA & NJ SREC, MA SREC Carve Out, CAIR NOX (Annual and Ozone), LCFS | \$15.00 | |

| Contract | Code | Unit | RL |
|---|------|------|--------|
| Crude Diff – Argus ANS vs Brent 1st Line Future | ABL | bbbl | \$3.00 |
| Crude Diff – Argus WTI Houston vs WTI Trade Month Future | ACM | bbbl | \$3.00 |
| Crude Outright – Argus WTI Cushing Trade Month Future | ACT | bbbl | \$3.00 |
| Crude Diff – Argus WTS vs WTI 1st Line Average Price Option | AFH | bbbl | \$3.00 |
| Crude Diff – Argus WTI Houston vs WTI 1st Line Average Price Option | AIL | bbbl | \$3.00 |
| Crude Outright – Argus LLS Future | ARH | bbbl | \$3.00 |
| Crude Diff – Argus LLS vs Brent 1st Line Future | ARI | bbbl | \$3.00 |
| Crude Diff – Argus LLS vs Dated Brent (Platts) Future | ARJ | bbbl | \$3.00 |
| Crude Diff – Argus LLS vs WTI 1st Line Future | ARK | bbbl | \$3.00 |
| Crude Diff – Argus LLS vs WTI Trade Month Average Price Option | ARL | bbbl | \$3.00 |
| Crude Outright – Argus Mars Future | ARM | bbbl | \$3.00 |
| Crude Diff – Argus Mars vs Brent 1st Line Future | ARN | bbbl | \$3.00 |
| Crude Diff – Argus Mars vs WTI 1st Line Average Price Option | ARO | bbbl | \$3.00 |
| Crude Diff - Argus WCS (Houston) Crude Oil Trade Month Future | ARV | bbbl | \$3.00 |
| Argus Mars vs WTI Trade Month Future | ARW | bbbl | \$3.00 |
| Crude Diff – Argus WTS vs WTI Trade Month Future | AVT | bbbl | \$3.00 |
| Crude Diff – Argus Bakken (Clearbrook) Crude Oil Future | BAK | bbbl | \$3.00 |
| Crude Diff – WTI 1st Line vs Brent 1st Line Future | BTD | bbbl | \$3.00 |
| Crude Diff – Argus WCS (Cushing) Crude Oil Trade Month Future | CSH | bbbl | \$3.00 |
| Fuel Oil Diff – New York 1% Fuel Oil (Platts) vs USGC HSFO (Platts) Future | FOD | bbbl | \$2.00 |
| Fuel Oil Outright – New York 1% Fuel Oil Future | FOW | bbbl | \$2.00 |
| Fuel Oil Crack – USGC HSFO (Platts) vs Brent 1st Line Future | GCS | bbbl | \$0.75 |
| Gasoline Diff – Group 3 Sub-octane Gasoline (Platts) vs RBOB Gasoline 1st Line Future | GDL | gal | \$0.05 |
| Gasoline Diff – Gulf Coast CBOB 87 Gasoline Prompt Pipeline (Platts) vs RBOB Gasoline 1st Line Future | GDM | gal | \$0.05 |
| Gasoline Diff – RBOB Gasoline 1st Line vs Argus Eurobob Oxy FOB Rotterdam Barge Future | GDO | MT | \$5.00 |
| Gasoline Diff – RBOB Gasoline 1st Line vs Argus Eurobob Oxy FOB Rotterdam Barges Mini Future | GDQ | MT | \$5.00 |
| Fuel Oil Diff – USGC HSFO (Platts) vs Fuel Oil 3.5% FOB Rotterdam Barges (Platts) Future (in Bbls) | GOE | bbbl | \$0.50 |
| Diesel Diff – Gulf Coast ULSD vs Heating Oil 1st Line Future | GOH | gal | \$0.02 |
| Fuel Oil Crack – USGC HSFO (Platts) vs WTI 1st Line Future | GUF | bbbl | \$0.75 |
| Heating Oil Crack – Heating Oil 1st Line vs Brent 1st Line Future (in Bbls) | HBT | bbbl | \$0.75 |
| Jet Fuel Diff – Gulf Coast Jet Fuel vs Heating Oil 1st Line Future | JHO | gal | \$0.02 |
| Crude Diff – Argus WTI Midland vs WTI 1st Line Future | MLT | bbbl | \$3.50 |

| | | | |
|--|-----|------|--------|
| Crude Diff – Argus WTI Houston vs Argus WTI Midland Trade Month Future | MSN | bbbl | \$3.00 |
| Crude Diff – Argus WTI Midland vs Argus WTS Trade Month Future | MST | bbbl | \$3.00 |
| Crude Diff – Argus WTI Midland vs WTI Trade Month Future | MSV | bbbl | \$3.50 |
| Fuel Oil Diff – USGC HSFO (Platts) vs Fuel Oil 3.5% FOB Rotterdam Barges (Platts) Future (in MTs) | NVV | MT | \$1.00 |
| Crude Outright – WTI 1st Line Future | R | bbbl | \$0.75 |
| Fuel Oil Outright – USGC HSFO (Platts) Future | RBO | bbbl | \$2.00 |
| Gasoline Crack – RBOB Gasoline 1st Line vs Brent 1st Line Future (in Bbls) | RBR | bbbl | \$0.75 |
| Crude Diff - ICE WCS 1b Index Future | TDX | bbbl | \$3.00 |
| Crude Diff - ICE LSB 1a Index Future | TML | bbbl | \$3.00 |
| ICE WCS Cushing 1a Index Trade Month Future | TMQ | bbbl | \$3.00 |
| Crude Diff - ICE SW 1a Index Future | TMR | bbbl | \$3.00 |
| Crude Diff - ICE UHC 1a Index Future | TMU | bbbl | \$3.00 |
| Crude Diff - ICE WCS 1a Index Future | TMW | bbbl | \$3.00 |
| Crude Diff - ICE UHC 1b Index Future | UHB | bbbl | \$3.00 |
| Heating Oil Arb – Heating Oil 1st Line vs Low Sulphur Gasoil 1st Line Future (in Bbls) | ULM | bbbl | \$0.02 |
| Gasoline Diff – Gulf Coast Unl 87 Gasoline Prompt Pipeline (Platts) vs RBOB Gasoline 1st Line Future | UM1 | bbbl | \$0.05 |
| Natural Gasoline, OPIS Mt. Belvieu Non-TET vs. WTI 1 st Line Future | NGW | Bbl | \$2.10 |

For any Oil or NGL Futures contracts not listed in the above table the following Reasonability Levels are applied:

| Oil Products | Reasonability Limit(s) |
|------------------------------------|-------------------------------|
| All Oil (Barrels or lbs) Contracts | \$1.25 |
| All Oil (MT) Contracts | \$3.75 |
| All Oil (Gallons) Contracts | \$0.050 |
| All Oil (RIN) Contracts | \$0.0400 |
| NGL (North American) (Gallons) | \$0.120 |
| Olefins | \$0.025 |
| Aromatics | \$0.050 |
| LPG (International) (MT) | \$25.00 |

ICE Futures U.S. Agricultural, Metal, Index and Currency Contracts NCR, RL and CSLOR Levels

| AG AND METAL FUTURES | RL | NCR | CSLOR |
|---|------------------|------------------|-----------------|
| Cocoa (CC) | \$50.00 per ton | \$25.00 per ton | \$10.00 per ton |
| Coffee "C" [®] (KC) | \$.0375 per lb. | \$.0080 per lb. | \$.0040 per lb. |
| Cotton No. 2 [®] (CT) | \$.0200 per lb. | \$.0075 per lb. | \$.0030 per lb. |
| FCOJ (OJ) | \$.0225 per lb. | \$.0100 per lb. | \$.0075 per lb. |
| Sugar No. 11 [®] (SB) | \$.0050 per lb. | \$.0020 per lb. | \$.0010 per lb. |
| Sugar No. 16 (SF) | \$.0300 per lb. | \$.0050 per lb. | \$.0050 per lb. |
| Canola (RS) | \$8.00 per tonne | \$6.00 per tonne | \$600 per tonne |
| Daily (AUD), 100 oz. (ZG) and mini Gold YG) | \$8.00 per oz. | \$4.00 per oz. | \$2.00 per oz. |
| Daily (HIO), 5000 oz. (ZI) & mini Silver (YI) | \$0.300 per oz. | \$0.200 per oz. | \$0.100 per oz. |

| INDEX FUTURES (in Index Points) | RL | NCR | CSLOR |
|---|--------|-------|-------|
| U.S. Dollar Index (DX) | 0.500 | 0.200 | 0.100 |
| NYSE FANG+TM Index (FNG) | 15.00 | 6.00 | 4.00 |
| MSCI EAFE Index (MFS), MSCI Emerging Markets Index (MME) and MSCI World Index (MWL) | 24.00 | 3.00 | 2.00 |
| MSCI EAFE NTR Index (MFU) | 72.00 | 9.00 | 6.00 |
| MSCI Emerging Markets NTR Index (MMN) | 8.00 | 1.00 | 0.50 |
| MSCI Emerging Markets Latin America Index (MLE) | 30.00 | 5.00 | 2.50 |
| MSCI EM Asia Index (ASE) | 12.00 | 1.50 | 1.00 |
| MSCI EM Asia NTR Index (ASN) | 10.00 | 1.50 | 1.00 |
| MSCI ACWI Index Futures (MAW) and MSCI ACWI Ex-US Index (AWE) | 6.00 | 0.75 | 0.50 |
| MSCI ACWI NTR Index (MMW) and MSCI ACWI ex-US NTR Index (AWN) | 5.00 | 0.75 | 0.50 |
| MSCI Canada Index (MCL) and MSCI USA Index (MUN) | 18.00 | 9.00 | 6.00 |
| MSCI Pan-Euro Index (MPP) | 11.00 | 6.00 | 4.00 |
| MSCI Euro Index (MEU) | 10.00 | 4.50 | 3.00 |
| MSCI Europe Index (MCE), MSCI Europe Growth Index (MGE) and MSCI Europe Value Index (MPU) | 1.25 | 0.50 | 0.25 |
| MSCI USA Growth Index (MRG) | 30.00 | 15.00 | 10.00 |
| MSCI USA Value Index (MCU) | 20.00 | 10.50 | 7.00 |
| NYSE Arca Gold Miners Index (GDF) | 7.00 | 6.25 | 4.00 |
| MSCI USA Small Cap Index (MUS) | 22.50 | 3.00 | 2.00 |
| MSCI EM NTR (EUR) Index (MMR), MSCI EM EME Index (MMM) | 5.00 | 1.00 | 0.75 |
| MSCI EM LatAm NTR Index (MML) and MSCI Mexico NTR Index (MXM) | 12.00 | 1.00 | 0.75 |
| MSCI China Free NTR Index (MCY) | 9.00 | 1.25 | 1.00 |
| MSCI India NTR Index (MIN) | 8.00 | 1.25 | 1.00 |
| MSCI Pacific NTR Index (MPA), Europe NTR Index (EU9) and Pacific ex-Japan NTR Index (PAC) | 120.00 | 15.00 | 10.00 |

| | | | |
|---|--------|-------|-------|
| MSCI USA GTR Index (USS) | 200.00 | 30.00 | 20.00 |
| MSCI North America NTR Index (NAA) and Canada GTR Index (CAD) | 150.00 | 18.00 | 12.00 |
| MSCI World NTR Index (MWS) | 100.00 | 12.00 | 8.00 |
| MSCI AC Asia ex-Japan Index (ASI) | 12.00 | 1.50 | 1.00 |
| ERIS CDX HY (HY5) | 7500 | 2500 | 2500 |
| ERIS CDX IG (IG5) | 3000 | 1500 | 1500 |

| CURRENCY PAIR FUTURES | RL | NCR | CSLOR |
|--|------------------------|--------------------|------------|
| Sterling-US dollar (MP and IMP) | 100 ticks/100 points | 50 ticks/50 points | 25 points |
| Zloty-US dollar (PLN) | “ | “ | “ |
| Zloty-Euro (PLE) | “ | “ | “ |
| Turkish lira-US dollar (TRM) | “ | “ | “ |
| Turkish lira-Euro (ETR) | “ | “ | “ |
| Russian Ruble-US dollar (KRU) | “ | “ | “ |
| Col. peso-US dollar (KCU) | 1200 ticks/1200 points | 600 ticks/600 pts. | 300 points |
| Indian Rupee (KIU) and Yen-US dollar (KSN) | “ | “ | “ |
| Sterling-Norway (PK) | 200 ticks/5000 points | 60 ticks/1500 pts. | 750 points |
| Sterling-SA Rand (PZ) | “ | “ | “ |
| Sterling-Sweden (PS) | “ | “ | “ |
| Euro-Sweden (RK,KRK and IRK) Euro-Norway (OL and KOL) | “ | “ | “ |
| Euro-SA Rand (YZ) | “ | “ | “ |
| US\$-SA Rand (ZR) | “ | “ | “ |
| Norway-Yen (KY) | “ | “ | “ |
| Sweden-Yen(KJ) | “ | “ | “ |
| Mexican peso-US dollar (KMP) | “ | “ | “ |
| All Other Currency Pairs | 200 ticks/1000 points | 60 ticks/300 pts. | 150 points |

| No-Cancellation Ranges for Ag, USDX and MSCI Option Contracts (based on Theoretical Values shown) | | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| Theoretical Value* | Cotton | FCOJ | Cocoa | Coffee | Sugar | USDX |
| .01 - .20 | .20 pts | .20 pts | 10 pts | .15 pts | .10 pts | .100 pts |
| .21 - 2.00 | .40 pts | .75 pts | 20 pts | .50 pts | .15 pts | .150 pts |
| 2.01 - 5.00 | .50 pts | 1.00 pts | 25 pts | .75 pts | .20 pts | .200 pts |
| 5.01 - 10.00 | .60 pts | 1.50 pts | 25 pts | 1.00 pts | .25 pts | .250 pts |
| 10.01 - above | .80 pts | 2.00 pts | 25 pts | 1.00 pts | .25 pts | .250 pts |
| RL | 3 x NCR | 3 x NCR | 3 x NCR | 3 x NCR | 3 x NCR | 3 x NCR |
| For MSCI Options the NCR shall be 20% of Theoretical Value with a minimum of .50 points and a maximum of 3.00 point, and the RL shall be 3 x NCR | | | | | | |
| *Note that for Cocoa options (which do not trade in decimal points) the respective Theoretical Value Ranges are "1 to 20 points, 21 to 200 points, 201 to 500 points, 501 to 1000 points, and 1001 points and above. | | | | | | |
| NCR and Reasonability Limits are for both outright options and User Defined Spread trades, including hedged trades; for purposes of NCR and RL levels, UDS and hedged UDS are treated as a package and not by the individual legs of the UDS. | | | | | | |
| In the case of price adjustment, Market Supervision will adjust to fair value minus/plus the NCR. | | | | | | |

NOTE: Market Supervision staff has the authority to expand the No Cancellation Range and Reasonability Limit for a product to two (2) times the levels shown above in volatile market conditions and without prior notice.

No Cancellation Range and Reasonability Level for Canola Options

| | No Cancellation Range | Reasonability Limit |
|-------------------------|--|--|
| Outright Options | 30% from fair value as determined by the Exchange, with a minimum of \$1.00 and a maximum of \$4.00. Options with a value of less than \$1.00 are \$0.00. | 40% from fair value as determined by the Exchange, with a minimum of \$2.00. |
| Calendar Spread Options | 30% from fair value as determined by the Exchange and with a minimum of \$1.00 and a maximum of \$4.00. Options with a value of less than \$1.00 are \$0.00. | None. |

The Exchange reserves the right to consider all alleged error trade situations on their individual merits and may therefore amend these policies in light of the circumstances of each case. The full Error Policy can be found in IFUS Electronic Trading Rules, on the web at: https://www.theice.com/publicdocs/rulebooks/futures_us/--Appendix_1_Error_Trade_Policy.pdf.

No Cancellation Ranges and Reasonability Levels for Metal Options:

The NCR shall be 20% of the option premium, subject to a minimum of 50 ticks and a maximum of 250 ticks. The RL shall be three times the NCR of the option.

The Exchange reserves the right to consider all alleged error trade situations on their individual merits and may therefore amend these policies in light of the circumstances of each case. The full Error Policy can be found in IFUS Electronic Trading Rules, on the web at: https://www.theice.com/publicdocs/rulebooks/futures_us/--Appendix_1_Error_Trade_Policy.pdf.

No Cancellation Range for Option Conversions and Option Boxes:

Option Conversions and Option Boxes will be subject to the lowest NCR stated for the market in which they are traded.

A long Option Conversion shall be defined as combining long calls, short puts and short futures. A short Option Conversion shall be defined as combining long puts, long futures and short calls. The Option conversion must contain the same expiry, strikes prices and quantity.

An Option Box shall be defined as combining a position that is long a call and short a put in strike 1 and long a put and short a call in strike 2. The Option Box must contain the same expiry and quantity in both strike 1 and strike 2 for both calls and puts.

The descriptions of Anchor Price, No Cancellation Range, Reasonability Limits and Calendar Spread Limit Order Range below are taken from the IFUS Error Policy.

Anchor Price

The Anchor Price is set by the Exchange and is based on the front contract month, however, when the front month nears expiration, the Anchor Price will be based on the delivery month with the most open interest. The determination as to when to shift the Anchor Price based on open interest will be made by the Exchange. The Anchor Price may be the previous night's settlement price, the opening call price or the last traded price. The Anchor Price of the second contract month and successive months onward is achieved by applying spread differentials against the front month Anchor Price.

No Cancellation Range

The Exchange determines parameters above or below an Exchange set anchor price for each Contract within which a trade alleged as an error trade may not be cancelled. Such parameters are known as a no cancellation range.

Trades within the no cancellation range will not, under most circumstances, be cancelled by the Exchange, whether as a result of error or otherwise, in order that market users can have confidence that traded levels will stand.

Reasonability Limits

The ETS maintains Reasonability Limits to prevent 'fat finger' type errors. These are hard limits above or below an Exchange set anchor price. Orders with bids above the Reasonability Limit or offers below the Reasonability Limit will not be accepted.

Each option order submitted to the electronic trading platform will be evaluated against a reasonability limit for the specific call or put option strike price. A reasonability limit range will be established around the theoretical premium value for each option call or put. The theoretical premium value will be calculated using the Black - Scholes model and will dynamically update throughout the day. The reasonability limit range will allow for entry of bids or offers within a calculated distance from the option's current theoretical premium value. This Option Reasonability Range is the distance above/below the calculated option theoretical premium used to establish the reasonability limits. This range is determined by the Exchange and is subject to change without notice. For Options with little theoretical value (deep out-of-the money), a minimum premium price established by the Exchange will be used. If the theoretical price of the Option plus the Option Reasonability Range is less than the minimum premium, the minimum premium will be used as the Reasonability Limit. The Reasonability Limits for each Exchange Commodity Contract are flexible, to take into account prevailing market conditions, and may be changed at the discretion of the Exchange on an intraday basis, without advance notice, to take account of such conditions.

Reasonability Limits are applicable during the pre-open period for all IFUS futures contracts (except for Natural Gas, Power and Emissions contracts), at levels up to three times the levels shown in this document. Entry of new and revisions to existing option orders are not permitted during the pre-open period, and therefore Reasonability Limits are not applicable to IFUS option contracts during the pre-open.

Calendar Spread Limit Order Range

The CSLOR is used to set the maximum difference between the stop and limit prices on a calendar spread Stop Limit order, and the limit price on a calendar spread Stop With Protection order.



INTERVAL PRICE LIMIT FUNCTIONALITY

With IPL levels as of [~~November 7 2018~~]
April 8 2019

IPL functionality acts as a temporary circuit breaker feature on the electronic platform, to diminish the likelihood and extent of short-term price spikes or aberrant market moves. While it is designed to be in force throughout each trading day, it is expected that the protections will be actively triggered only in the case of extreme price moves over very short periods of time. The IPL regime uses three customizable parameters for each futures product:

1. **IPL Recalculation Time:** A pre-set length of time during which the price of a contract month may not move up or down more than the IPL Amount (defined below) from the contract price at the start of the period. This starting price is referred to as the “anchor price”. The IPL Recalculation Time continuously resets for the length of time applicable to the particular futures contract.
2. **IPL Amount:** The maximum number of points that a contract month is permitted to move up or down during each IPL Recalculation Time for the contract. The anchor price plus/minus the IPL amount effectively creates an IPL range for the contract for the IPL Recalculation Time.
3. **IPL Hold Period:** When the platform determines that the next trade in the contract month will be at a price that is outside the active IPL range, the platform triggers a Hold Period, during which the price of the contract is not permitted to trade outside the IPL range that was in place at the start of the IPL Hold Period. The length of the Hold Period is pre-set. When a Hold Period is triggered, the platform will issue an alert notifying users that a Hold Period has begun and specifying the time the Hold Period will end.

IPL parameters can be changed over time based on market conditions; more information on IPL functionality can be found at:

https://www.theice.com/publicdocs/technology/IPL_Circuit_Breaker.pdf.

Current IPL Recalculation Times, Amounts and Hold Period for all IFUS products are detailed below:

Agricultural, Metal and Financial Index contracts:

| FUTURES CONTRACT | IPL Amount (in points) | Recalc Time (in secs) | Hold Period (in secs) |
|--|---------------------------|-----------------------------|-----------------------------|
| Sugar No. 11 (SB) | 60 | 15 | 30 |
| Cotton No. 2 (CT) and Coffee “C” (KC) | 400 | 15 | 30 |
| Cocoa (CC) | 100 | 15 | 30 |
| FCOJ (OJ) | 500 | 15 | 30 |
| Sugar No. 16 (SF) | 750 | 15 | 30 |
| Canola (RS) | 900 | 10 | 30 |
| Daily (AUD), Mini (YG) and 100 oz. Gold (ZG) | 1000 | 15 | 30 |
| Daily (HIO), Mini (YI) and 5000 oz. Silver (ZI) | 400 | 15 | 30 |
| MSCI EAFE Index (MFS) and World Index (MWL) | 4800 | 5 | 5 |
| MSCI EAFE NTR Index (MFU) | 14400 | 5 | 5 |
| MSCI Emerging Markets Index (MME) | 3000 | 5 | 5 |
| MSCI Emerging Markets NTR Index (MMN), EM Asia NTR Index (ASN), and ACWI Index (MAW) | 1200 | 5 | 5 |
| MSCI EM Latin America Index (MLE) and USA Growth Index (MRG) | 6000 | 5 | 5 |
| MSCI EM Asia Index (ASE), EM LatAM NTR Index (MML) and NYSE Arca Gold Miners Index (GDF) | 1400 | 5 | 5 |
| MSCI ACWI NTR Index (MMW) and ACWI Ex-US NTR Index (AWN) | 600 | 5 | 5 |
| MSCI ACWI ex-US Index (AWE) | 800 | 5 | 5 |
| MSCI Canada Index (MCL) and USA Index (MUN) | 3600 | 5 | 5 |
| MSCI Pan-Euro Index (MPP) | 2200 | 5 | 5 |
| MSCI Euro Index (MEU) | 2000 | 5 | 5 |
| MSCI Europe Index (MCE), Europe Growth Index (MGE) and Europe Value Index (MPU) | 250 | 5 | 5 |
| NYSE FANG+™ Index (FNG) and MSCI USA Value Index (MCU) | 4000 | 5 | 5 |
| MSCI USA Small Cap Index (MUS) | 2500 | 5 | 5 |
| MSCI EM NTR (EUR) Index (MMR) and EMEA NTR Index (MMM) | 600 | 5 | 5 |
| MSCI China Free NTR Index (MCY) and India NTR Index (MIN) | 1000 | 5 | 5 |
| MSCI Mexico NTR Index (MXM) and Asia ex-Japan NTR Index | 1500 | 5 | 5 |

| | | | |
|--|--------------|----------|----------|
| <u>MSCI Pacific NTR Index (MPA), Europe NTR Index (EU9) and Pacific ex-Japan NTR Index (PAC)</u> | <u>15000</u> | <u>5</u> | <u>5</u> |
| <u>MSCI USA GTR Index (USS)</u> | <u>30000</u> | <u>5</u> | <u>5</u> |
| <u>MSCI North America NTR Index (NAA) and Canada GTR Index (CAD)</u> | <u>18000</u> | <u>5</u> | <u>5</u> |
| <u>MSCI World NTR Index (MWS)</u> | <u>12000</u> | <u>5</u> | <u>5</u> |
| <u>ERIS CDX HY (HY5)</u> | <u>10000</u> | <u>5</u> | <u>5</u> |
| <u>ERIS CDX IG (IG5)</u> | <u>5000</u> | <u>5</u> | <u>5</u> |

USD^X® and Currency Pair contracts:

| Futures Contract | IPL Amount (in points) | Recalc Time (in secs) | Hold Period (in secs) |
|--|---------------------------|--------------------------|--------------------------|
| USD ^X (DX) | 500 | 5 | 2 |
| Sterling-US dollar (MP and IMP) | 750 | 5 | 5 |
| Yen-US dollar (KSN) and Russian Ruble-US dollar (KRU) | 3000 | 5 | 5 |
| Zloty-US dollar (PLN), Zloty-euro (PLE), Turkish lira-US dollar (TRM) and Turkish lira-euro (ETR) | 1500 | 5 | 5 |
| Col.peso-US dollar (KCU) | 9000 | 5 | 5 |
| Sterling-Norway (PK), Sterling-SA Rand (PZ), Sterling-Sweden (PS), Euro-Sweden (KRK and IRK), Euro-Norway (KOL), Euro-SA Rand (YZ), US dollar-SA Rand (ZR), Norway-Yen (KY), Sweden-Yen (KJ) and Mex. peso-US Dollar (KMP) | 37500 | 5 | 5 |
| All Other Currency Pairs | 7500 | 5 | 5 |

Power and Emissions contracts:

| Futures Contract | IPL Amount (in \$ terms) | IPL Exceptions (in \$ terms) | Recalc Time (secs) | Hold Period (secs) |
|-------------------------------|--------------------------|---|--------------------|--------------------|
| Financial Power | \$30.00 | N/A | 3 | 5 |
| Capacity Responsive Reserve | \$30.00 | N/A | 3 | 5 |
| In-City or Rest of State Cap. | \$30.00 | N/A | 3 | 5 |
| Non-Spinning Reserve | \$30.00 | N/A | 3 | 5 |
| Regulation | \$30.00 | N/A | 3 | 5 |
| All Daily Power Contracts | \$120.00 | N/A | 3 | 5 |
| All Daily Load Forecast | 50,000 MW | N/A | 3 | 5 |
| All ERCOT Contracts | \$100.00 | All ERCOT Daily contracts - \$120.00 ERCOT North 345KV Real-Time Peak Daily Fixed Price (END) - \$300.00 | 3 | 5 |

| | | | | |
|--|---------|-----|---|---|
| RGGI | \$1.00 | N/A | 3 | 5 |
| CAR-CRT, CFI-US, REC-NJ, CCA, TX REC, PJM TRI-QEC, OCA (Ontario), MD REC, PA AEC | \$2.50 | N/A | 3 | 5 |
| SFI | \$5.00 | N/A | 3 | 5 |
| CT & MA REC, MD & PA SAEC, NEPOOL REC | \$10.00 | N/A | 3 | 5 |
| CSAPR SO2 & NOX | \$60.00 | N/A | 3 | 5 |
| MA & NJ SREC, MA SREC Carve Out, CAIR NOX (Annual and Ozone), LCFS | \$30.00 | N/A | 3 | 5 |

Nat Gas contracts:

| Futures Contract | IPL Amount (in \$ terms) | IPL Exceptions (in \$ terms) | Recalc Time (secs) | Hold Period (secs) |
|-------------------------------|--------------------------|---|--------------------|--------------------|
| Henry Hub | \$0.20 | <u>N/A</u> | 3 | 5 |
| UK Natural Gas | \$0.12 | <u>N/A</u> | 3 | 5 |
| EIA Financial Weekly Index | 75 BCF | <u>N/A</u> | 3 | 5 |
| EIA End of Draw/Storage Index | 2,500 BCF | <u>N/A</u> | 3 | 5 |
| Financial LNG | \$0.60 | <u>N/A</u> | 3 | 5 |
| Fixed Price (excluding Henry) | \$4.00 | <u>IPL Amount: \$10.00</u> Dominion South Swing (DSS) Lebanon Swing (LBN) <u>IPL Amount: \$12.00</u> Algonquin Citygates Swing (ALS) Chicago Swing (CSS) NNG Demarc Swing (DES) Iroquois (Into) Swing (Platts) (IRS) Iroquois-Z2 Swing (Platts) (IZS) NNG Ventura Swing (NNS) PG&E Citygate Swing (PIG) Transco Zone 6 (non NY) Swing (TPS) TETCO M3 Swing (TSS) Transco Zone 6 (NY) Swing (ZSS) | 3 | 5 |

| | | | | |
|-------|--------|--|---|---|
| Basis | \$4.00 | <u>IPL Amount: \$10.00</u> Dominion South Basis (DOM) <u>IPL Amount: \$12.00</u> Algonquin Citygates Basis (ALQ) NNG Demarc Basis (DEM) Chicago Basis (DGD) Union Dawn Basis (DWN) Iroquois (Into) Basis (Platts) (IRB) Iroquois-Z2 Basis (Platts) (IZB) PG&E Citygate Basis (PGE) TETCO M3 Basis (TMT) Transco Zone 6 (non NY) Basis (TPB) Transco Zone 6 (NY) Basis (TZS) | 3 | 5 |
| Index | \$0.20 | <u>IPL Amount: \$12.00</u> AB NIT Index (AIS) Algonquin Citygates Index (ALI) ANR SW (Oklahoma) Index (AOI) ANR SE (Louisiana) Index (API) CG-Mainline Index (CGI) Chicago Index (CIS) CIG Rockies Index (CRC) Enable Gas Index (CTI) NNG Demarc Index (DEI) Dominion South Index (DIS) PG&E Citygate Index (EIS) Florida Gas Zone 3 Index (FTI) Henry Index (HIS) Iroquois (Into) Index (Platts)(IRI) Iroquois-Z2 Index (Platts) (IZI) NGPL Midcont Index (MCI) Malin Index (MIS) TETCO M3 Index (MTI) NWP Sumas Index (NIS) Michcon Index (NMI) NNG Ventura Index (NNI) Transco Zone 6 (NY) Index (NSI) NGPL TXOK Index (NTI) NGPL STX Index (NXI) ONEOK Gas Transportation Index (ONI) Southern Star TX OK KS Index (OUI) EP Permian Index (PEI) Panhandle Index (PIS) NWP Rockies Index (RSI) | 3 | 5 |

| | | | | |
|--|--|--|--|--|
| | | Social Citygate Index (SCI) HSC Index (SHS) Transco Station 65 (Zone 3) Index (SIA) Social Border Index (SIS) EP San Juan Index (SNI) Sonat Index (SOI) TETCO STX Index (SXI) TETCO ELA Index (TEI) Tennessee 500L Index (TFI) TGT Zone 1 Index (TGI) TCO Index (TIS) Transco Zone 6 (non NY) Index (TPI) Transco Station 85 (Zone 4) Index (TRI) TETCO WLA Index (TWI) Tennessee Zone 0 Index (TZI) Waha Index (WAI) | | |
|--|--|--|--|--|

| Oil and NGL Products | Commodity Code | Unit | IPL Amount (in \$ Terms) | Recalc Time (seconds) | Hold Period (seconds) |
|---|----------------|------|--------------------------|-----------------------|-----------------------|
| Crude Diff – Argus LLS vs WTI 1st Line Future | ARK | bbl | \$6.00 | 3 | 5 |
| Argus Mars vs WTI Trade Month Future | ARW | bbl | \$6.00 | 3 | 5 |
| Crude Diff – Argus WTS vs WTI Trade Month Future | AVT | bbl | \$6.00 | 3 | 5 |
| Crude Diff – WTI 1st Line vs Brent 1st Line Future | BTD | bbl | \$6.00 | 3 | 5 |
| Fuel Oil Diff – New York 1% Fuel Oil (Platts) vs USGC HSFO (Platts) Future | FOD | bbl | \$4.00 | 3 | 5 |
| Fuel Oil Outright – New York 1% Fuel Oil Future | FOW | bbl | \$4.00 | 3 | 5 |
| Fuel Oil Crack – USGC HSFO (Platts) vs Brent 1st Line Future | GCS | bbl | \$1.50 | 3 | 5 |
| Gasoline Diff – Group 3 Sub-octane Gasoline (Platts) vs RBOB Gasoline 1st Line Future | GDL | gal | \$0.10 | 3 | 5 |
| Gasoline Diff – Gulf Coast CBOB 87 Gasoline Prompt Pipeline (Platts) vs RBOB Gasoline 1st Line Future | GDM | gal | \$0.10 | 3 | 5 |
| Gasoline Diff – RBOB Gasoline 1st Line vs Argus Eurobob Oxy FOB Rotterdam Barge Future | GDO | MT | \$10.00 | 3 | 5 |
| Gasoline Diff – RBOB Gasoline 1st Line vs Argus Eurobob Oxy FOB Rotterdam Barges Mini Future | GDQ | MT | \$10.00 | 3 | 5 |
| Fuel Oil Diff – USGC HSFO (Platts) vs Fuel Oil 3.5% FOB Rotterdam Barges (Platts) Future (in Bbls) | GOE | bbl | \$1.00 | 3 | 5 |
| Diesel Diff – Gulf Coast ULSD vs Heating Oil 1st Line Future | GOH | gal | \$0.04 | 3 | 5 |
| Fuel Oil Crack – USGC HSFO (Platts) vs WTI 1st Line Future | GUF | bbl | \$1.50 | 3 | 5 |
| Heating Oil Crack – Heating Oil 1st Line vs Brent 1st Line Future (in Bbls) | HBT | bbl | \$1.50 | 3 | 5 |
| Jet Fuel Diff – Gulf Coast Jet Fuel vs Heating Oil 1st Line Future | JHO | gal | \$0.04 | 3 | 5 |
| Crude Diff – Argus WTI Midland vs WTI 1st Line Future | MLT | bbl | \$1.00 | 3 | 5 |
| Fuel Oil Diff – USGC HSFO (Platts) vs Fuel Oil 3.5% FOB Rotterdam Barges (Platts) Future (in MTs) | NVV | MT | \$2.00 | 3 | 5 |
| Crude Outright – WTI 1st Line Future | R | bbl | \$1.50 | 3 | 5 |
| Fuel Oil Outright – USGC HSFO (Platts) Future | RBO | bbl | \$4.00 | 3 | 5 |
| Gasoline Crack – RBOB Gasoline 1st Line vs Brent 1st Line Future (in Bbls) | RBR | bbl | \$1.50 | 3 | 5 |
| Heating Oil Arb – Heating Oil 1st Line vs Low Sulphur Gasoil 1st Line Future (in Bbls) | ULM | bbl | \$0.04 | 3 | 5 |

| | | | | | |
|--|-----|-----|--------|---|---|
| Gasoline Diff – Gulf Coast Unl 87 Gasoline Prompt Pipeline (Platts) vs RBOB Gasoline 1st Line Future | UM1 | bbl | \$0.10 | 3 | 5 |
| Natural Gasoline, OPIS Mt. Belvieu Non-TET vs WTI 1 st Line Future | NGW | Bbl | \$4.00 | 3 | 5 |

For any Oil Futures contracts not listed in the above table the following IPL Levels are applied:

| Oil Products | IPL Amount (in \$ Terms) | Recalc Time (seconds) | Hold Period (seconds) |
|------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|
| All Oil (Barrels or lbs) Contracts | \$6.25 | 3 | 5 |
| All Oil (MT) Contracts | \$18.75 | 3 | 5 |
| All Oil (Gallons) Contracts | \$0.25 | 3 | 5 |
| All Oil (RIN) Contracts | \$0.0600 | 3 | 5 |
| NGL (North American) (Gallons) | \$0.125 | 3 | 5 |
| Olefins | \$0.125 | 3 | 5 |
| Aromatics | \$0.250 | 3 | 5 |
| LPG (International) (MT) | \$125.00 | 3 | 5 |