



April 26, 2019

Via CFTC Portal Submissions

Mr. Christopher Kirkpatrick
Secretary of the Commission
Office of the Secretariat
Commodity Futures Trading Commission
3 Lafayette Centre
1155 21st Street, N.W.
Washington D.C. 20581

RE: Self-Certification Rule Amendments: Nadex Amends its Expiration Value Calculation Process - Submission Pursuant to Commission Regulation §40.6(a)

Dear Mr. Kirkpatrick:

Pursuant to Section 5c(c)(1) of the Commodity Exchange Act, as amended (“Act”), and section §40.6(a) of the regulations promulgated by the Commodity Futures Trading Commission (the “Commission”) under the Act (the “Regulations”), North American Derivatives Exchange, Inc. (“Nadex”, the “Exchange”) hereby submits to the Commission its intent to amend the process it uses to calculate the expiration value for its Crude Oil and Natural Gas Variable Payout and Binary contracts, based on the number of underlying trades collected in the seconds leading up to expiration of the Nadex contract.

Nadex calculates the expiration value for the majority of its non-fx Variable Payout and Binary contracts using a different method depending on whether the underlying market upon which the Nadex contract is based is “normal” or “highly active”. Under normal conditions, Nadex would collect the last 25 trade prices in the underlying market just prior to the expiration of the Nadex contract, remove the highest and lowest 5 trade prices, and average the remaining 15 trade prices, rounding to one decimal point past the precision of the underlying market. Under highly active conditions, meaning Nadex is able to collect 25 or more trade prices from the underlying market in the 10 seconds leading up to expiration of the Nadex contract, Nadex collects all trade prices occurring during the 10 second period prior to expiration, removing the highest and lowest 20% of trade prices, and averaging the remaining trade prices, rounding to

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one decimal point past the precision of the underlying market. The “highly active” method has not been applied to the calculation of the expiration value for Nadex’s Crude Oil and Natural Gas Binary and Variable Payout contracts because historically, the underlying market data that Nadex obtains from Reuters only allowed for minute precision for the NYMEX® Crude Oil and Natural Gas Futures markets. Thus, the expiration calculating system was unable to discern the number of trades occurring in the 10 seconds just prior to the expiration of the Nadex contract, and likewise, the appropriate method to apply. The Reuters data feed has recently been updated and now includes millisecond precision. Accordingly, Nadex will now be able to calculate the expiration value for its Crude Oil and Natural Gas contracts in the same fashion as its other non-fx products using both the normal market conditions and the highly active market conditions methods.

DCM Core Principles

Nadex has identified the following Designated Contract Market (“DCM”) Core Principles as potentially being impacted by the amendments to the expiration value calculation process: Core Principle 3 Contracts Not Readily Subject to Manipulation; Core Principle 7 Availability of General Information.

Core Principle 3 requires that a DCM list only contracts that are not readily susceptible to manipulation. Nadex uses an expiration value calculation process that removes outlier prices and averages the remaining data set to prevent the potential manipulation of values. The amendments discussed herein would further prevent the potential of manipulation by using larger set of data just before expiration in active markets, as well as removing a greater number of outlier prices from that set.

Core Principle 7 requires that a DCM make available the terms and conditions of its listed contracts. Nadex currently sets forth the expiration value calculation method in each contract’s specifications in the Rulebook, which is available on the Nadex website. Nadex will continue to make its expiration calculation method explanations available to the public in the Rulebook.

Accordingly, the Rule amendments to the expiration value calculation process discussed herein will not negatively impact Nadex’s ability to comply with these Core Principles.

DCO Core Principles

Nadex has identified the following Derivatives Clearing Organization (“DCO”) Core Principles as potentially being impacted by the amendments to the expiration value calculation process: Core Principle L Public Information.

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Core Principle L, implemented by Commission Regulation 39.21, requires a DCO to make available to the public the terms and conditions of each contract. As stated previously, Nadex makes available the expiration value calculation method in the Nadex Rulebook. Nadex will continue to make this information available to the public by the same means after the amendments to the Crude Oil and Natural Gas expiration calculation methods have been implemented. Therefore, the Rule amendments to the expiration value calculation process discussed herein will not negatively impact Nadex's ability to comply with these Core Principles.

Pursuant to the 10-day filing period under Regulation 40.6(a)(3), Nadex intends to implement the amendments discussed herein for trade date May 13, 2019.

Rule changes have been outlined in Exhibit A. The amendments to the Rulebook are set forth in Exhibit B. Any deletions to the Agreement have been stricken out while the amendments and/or additions are underlined.

No substantive opposing views were expressed to Nadex with respect to these amendments.

Nadex hereby certifies that the amendments and additions contained herein comply with the Act, as amended, and the Commission Regulations adopted thereunder.

Nadex hereby certifies that a copy of these amendments was posted on its website at the time of this filing.

Should you have any questions regarding the above, please do not hesitate to contact me by telephone at (312) 884-0927 or by email at jaimewalsh@nadex.com.

Sincerely,



Jaime Walsh
Legal Counsel

EXHIBIT A

Rule	Asset	Duration/Close Time	Action	Effective Date
12.8	Crude Oil Variable Payout Contracts	All contracts	Amend expiration value calculation process	05/13/2019
12.9	Crude Oil Binary Contracts	All contracts	Amend expiration value calculation process	05/13/2019
12.10	Natural Gas Variable Payout Contracts	All contracts	Amend expiration value calculation process	05/13/2019
12.1	Natural Gas Binary Contracts	All contracts	Amend expiration value calculation process	05/13/2019

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EXHIBIT B

Amendment of Rules 12.8-12.11

(The following Rule amendments are underlined and deletions are stricken out)

RULES 1.1 – 12.7 [UNCHANGED]

RULE 12.8 CRUDE OIL VARIABLE PAYOUT CONTRACTS

(a) SCOPE – These Rules shall apply to the Class of Contracts referred to as the Crude Oil Variable Payout Contracts issued by Nadex.

(b) UNDERLYING – The Underlying for this Class of Contracts is WTI Light, Sweet Crude Oil price per barrel (in US dollars), obtained from the WTI Light, Sweet Crude Oil Futures contracts (“CFC”) traded on the New York Mercantile Exchange (“NYMEX”¹). The CFC trade prices that will be used for the Underlying will be taken from all twelve CFC delivery months: January, February, March, April, May, June, July, August, September, October, November, or December (each a “CFC Delivery Month”). The date on which a new delivery month will be used as the Underlying for Nadex contracts (i.e. “Start Date”) is one calendar day after the End Date for the previous delivery month contract. The last day on which a delivery month will be used as the Underlying for Nadex contracts (i.e. “End Date”) is the Friday of the week preceding the Underlying futures contracts Expiration Date. If the Underlying futures contracts Expiration Date falls on a Monday, the End Date for that specific delivery month will be the Friday of the week preceding the week of the Underlying futures contracts Expiration Date, i.e. not the Friday that is one business day prior to the Monday Expiration Date. For example, the Nymex Crude Oil March 2012 futures have an Expiration Date of February 21, 2012. The last day on which the Crude Oil March 2012 futures prices will be used as the Underlying for Nadex contracts and to calculate the Expiration Value on the Expiration Date for the relevant Crude Oil contracts will be the Friday of the preceding week. Therefore, the End Date for using Nymex Crude Oil March 2012 futures will be February 17, 2012 and the Start Date for the next delivery month, Nymex Crude Oil April 2012 futures, will be February 18, 2012. The Nymex Crude Oil November 2012 futures, however, have an Expiration Date of Monday, October 22, 2012. The last day on which the Crude Oil November 2012 futures prices will be as the Underlying for Nadex contracts and to calculate the Expiration Value on the Expiration Date for the relevant Crude Oil contracts will be October 12, 2012, rather than October 19, 2012, and the Start Date for the next delivery month, Nymex Crude Oil December 2012 futures will be October 13, 2012.

(c) SOURCE AGENCY – The Source Agency is Nadex.

(d) TYPE – The Type of Contract is a Variable Payout Contract.

¹ *Supra*, at fn 4.

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(e) ISSUANCE – For each planned release by the Source Agency of the Underlying, Nadex will issue various Contracts, each of a different Series. A new issuance of Contracts will commence no later than two (2) business days following the Expiration Date.

(f) PAYOUT CRITERION – The Payout Criterion for each Contract will be set by Nadex at the time the Variable Payout Contracts are initially issued. For the Crude Oil Variable Payout Contract, the Payout Criteria for the Contracts will be set as follows;

(i) DAILY CRUDE OIL CALL SPREAD VARIABLE PAYOUT CONTRACTS, 2:30 PM ET CLOSE - At the commencement of trading in a Daily Crude Oil Call Spread Variable Payout Contract, referred to as a ‘Call Spread’, Nadex shall list one (1) Call Spread Contract, which conforms to the Payout Criteria listed below:

(1) DAILY CRUDE OIL CALL SPREAD CONTRACT

(aa) CEILING – The Ceiling shall be $X + 5$.

(bb) FLOOR – The Floor shall be $X - 5$.

(cc) DOLLAR MULTIPLIER – The Dollar Multiplier shall be 100.

(2) In each case, “X” equals the last Crude Oil price, as reported by the Source Agency, rounded to the nearest 1.

(ii) DAILY CRUDE OIL CALL SPREAD CONTRACTS, 2:30 PM ET CLOSE - Nadex shall list a set of three (3) Call Spread Contracts with overlapping ranges, which conform to the Payout Criteria listed below:

(1) CONTRACT 1: The Ceiling shall be X ; The Floor shall be $X - 5$.

(2) CONTRACT 2: The Ceiling shall be $X + 2.50$; The Floor shall be $X - 2.50$.

(3) CONTRACT 3: The Ceiling shall be $X + 5$; The Floor shall be X .

(4) DOLLAR MULTIPLIER – The Dollar Multiplier shall be 100.

(5) In each case, “X” equals the last Crude Oil price, as reported by the Source Agency, rounded to the nearest 1.

(iii) INTRADAY CRUDE OIL CALL SPREAD CONTRACTS, 8AM ET to 2:30 PM ET CLOSE - Nadex shall list a set of three (3) Call Spread Contracts with overlapping ranges, which conform to the Payout Criteria listed below:

(1) CONTRACT 1: The Ceiling shall be X ; The Floor shall be $X - 3$.

(2) CONTRACT 2: The Ceiling shall be $X + 1.50$; The Floor shall be $X - 1.50$.

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(3) CONTRACT 3: The Ceiling shall be $X + 3$; The Floor shall be X .

(4) DOLLAR MULTIPLIER – The Dollar Multiplier shall be 100.

(5) In each case, “X” equals the last Crude Oil price, as reported by the Source Agency, rounded to the nearest 0.50.

(iv) INTRADAY 2-HOUR CRUDE OIL CALL SPREAD CONTRACTS, 10:00AM, 11:00AM, 12:00PM, 1:00PM and 2:00PM ET CLOSE - Nadex shall list a set of five (5) Call Spread Contracts that open 2 hours prior to the stated closing time(s) above with overlapping ranges, which conform to the Payout Criteria listed below:

(1) CONTRACT 1: The Ceiling shall be $X - 0.75$; The Floor shall be $X - 2.25$.

(2) CONTRACT 2: The Ceiling shall be X ; The Floor shall be $X - 1.50$.

(3) CONTRACT 3: The Ceiling shall be $X + 0.75$; The Floor shall be $X - 0.75$.

(4) CONTRACT 4: The Ceiling shall be $X + 1.50$; The Floor shall be X .

(5) CONTRACT 5: The Ceiling shall be $X + 2.25$; The Floor shall be $X + 0.75$.

(6) DOLLAR MULTIPLIER – The Dollar Multiplier shall be 100.

(7) In each case, “X” equals the last Crude Oil price, as reported by the Source Agency, rounded to the nearest 0.25.

(v) Nadex may list additional Call Spread Contracts with different ranges of Payout Criteria on a discretionary basis in accordance with the CEA and Commission Regulations.

(g) MINIMUM TICK – The Minimum Tick size for Crude Oil Call Spread Contracts shall be 0.01.

(h) POSITION LIMIT – The Position Limits for Crude Oil Call Spread Contracts shall be 25,000 Contracts.

(i) LAST TRADING DATE – The Last Trading Date of the Contract is the same date as the Settlement Date.

(j) SETTLEMENT DATE – The Settlement Date of the Contract shall be the same date as the Expiration Date.

(k) EXPIRATION DATE – The Expiration Date of the Contract will be the date on which the Crude Oil Expiration Value is released by the Source Agency.

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(l) SETTLEMENT VALUE – The Settlement Value is the amount paid to the holder of either a Short or Long Variable Payout Contract on Settlement Date. The Settlement Value of a Variable Payout Contract is determined as described in the definition for Long and Short Variable Payout Contracts.

(m) EXPIRATION VALUE – The Expiration Value is the price or value of Crude Oil released by the Source Agency on the Expiration Date. The Expiration Value is calculated by the Source Agency by taking all the last twenty-five (25) CFC trade prices occurring in the ten (10) seconds leading up just prior to the close of trading of the Crude Oil Call Spread Contract, provided at least twenty-five (25) trade prices are captured during the ten (10) second period, and removing the highest twenty (20) percent of five (5) CFC trade prices and the lowest twenty (20) percent of five (5) CFC trade prices in the data set², and using the remaining fifteen (15) CFC trade prices in the data set, to calculate the Expiration Value. The calculation used is a simple average of the remaining CFC trade prices in the data set, all fifteen (15) CFC trade prices, rounded to one decimal point past the precision of the underlying market. In the event the time it takes to collect at least twenty-five (25) CFC trade prices exceeds the ten (10) seconds just prior to the close of trading of the Crude Oil Call Spread Contract, the Expiration Value is calculated by the Source Agency by taking the last twenty-five (25) CFC trade prices just prior to the close of trading of the Crude Oil Call Spread Contract removing the highest five (5) CFC trade prices and the lowest five (5) CFC trade prices, and using the remaining fifteen (15) CFC trade prices to calculate the Expiration Value. The calculation used is a simple average of all fifteen (15) CFC trade prices, rounded to one decimal point past the precision of the underlying market.

(n) CONTINGENCIES – If no level is actually announced on the Expiration Date due to a delay, postponement or otherwise in such release announcement by the Source Agency, the Settlement Date will be delayed until the Underlying number is released for that Series.

RULE 12.9 CRUDE OIL BINARY CONTRACTS

(a) SCOPE – These Rules shall apply to the Class of Contracts referred to as the Crude Oil Binary Contract issued by Nadex.

(b) UNDERLYING – The Underlying for this Class of Contracts is WTI Light, Sweet Crude Oil price per barrel (in US dollars), obtained from the WTI Light, Sweet Crude Oil Futures contracts (“CFC”) traded on the New York Mercantile Exchange (“NYMEX®”³). The CFC trade prices that will be used for the Underlying will be taken from all twelve CFC delivery months: January, February, March, April, May, June, July, August, September, October, November, or December (each a “CFC Delivery Month”). The date on which a new delivery month will be used as the Underlying for Nadex contracts (i.e. “Start Date”) is one calendar day

² If 20% of the data set would result in a non-integer number of trade prices, the number of trade prices to be removed from the set will be rounded down. For example, if the number of trade prices collected during the last 10 seconds prior to the close of trading was 31, 20% of the data set would be 6.2 trade prices. As 6.2 is a non-integer number, the value will be rounded down, and the 6 highest and 6 lowest trade prices will be removed from the data set.

³ *Supra, at fn 4.*

after the End Date for the previous delivery month contract. The last day on which a delivery month will be used as the Underlying for Nadex contracts (i.e. “End Date”) is the Friday of the week preceding the Underlying futures contracts Expiration Date. If the Underlying futures contracts Expiration Date falls on a Monday, the End Date for that specific delivery month will be the Friday of the week preceding the week of the Underlying futures contracts Expiration Date, i.e. not the Friday that is one business day prior to the Monday Expiration Date. For example, the Nymex Crude Oil March 2012 futures have an Expiration Date of February 21, 2012. The last day on which the Crude Oil March 2012 futures prices will be used as the Underlying for Nadex contracts and to calculate the Expiration Value on the Expiration Date for the relevant Crude Oil contracts will be the Friday of the preceding week. Therefore, the End Date for using Nymex Crude Oil March 2012 futures will be February 17, 2012 and the Start Date for the next delivery month, Nymex Crude Oil April 2012 futures, will be February 18, 2012. The Nymex Crude Oil November 2012 futures, however, have an Expiration Date of Monday, October 22, 2012. The last day on which the Crude Oil November 2012 futures prices will be as the Underlying for Nadex contracts and to calculate the Expiration Value on the Expiration Date for the relevant Crude Oil contracts will be October 12, 2012, rather than October 19, 2012, and the Start Date for the next delivery month, Nymex Crude Oil December 2012 futures will be October 13, 2012.

(c) SOURCE AGENCY – The Source Agency is Nadex.

(d) TYPE – The type of Contract is a Binary Contract.

(e) ISSUANCE – For each planned release by the Source Agency of the Underlying, Nadex will issue various Contracts, each of a different Series. A new issuance of Contracts will commence no later than two (2) business days following the Expiration Date.

(f) PAYOUT CRITERION – The Payout Criterion for each Contract will be set by Nadex at the time the Binary Contracts are initially issued. For the Crude Oil Binary Contract, the Payout Criteria for the Contracts will be set as follows:

(i) WEEKLY CRUDE OIL BINARY CONTRACTS

(1) EXPIRATION TIME – 2:30PM ET CLOSE

(2) STRIKE INTERVAL WIDTH – The interval width between each strike level shall be 1.00.

(3) NUMBER OF STRIKE LEVELS LISTED - Thirteen (13) strike levels will be listed for each Weekly Crude Oil Binary Contract Series.

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- (4) **STRIKE LEVELS GENERATED** - Strike levels will be generated such that Binary Contract “W” is valued ‘at-the-money’ in relation to the Underlying market as determined by the Source Agency, immediately before the issuance of these Contracts, and shall be measured in U.S. cents rounded to the nearest value ending in either 0.25 or 0.75 as reported by the Source Agency. Six (6) strike levels will be generated above Binary Contract W at an interval of 1.00, and six (6) strike levels will be generated below Binary Contract W at an interval of 1.00 (e.g. $W - 1.00$; W ; $W + 1.00$). The Contract will have a Payout Criterion of greater than the strike level value.

(ii) **DAILY CRUDE OIL BINARY CONTRACTS**

- (1) **EXPIRATION TIME** – 2:30PM ET CLOSE
- (2) **STRIKE INTERVAL WIDTH** – The interval width between each strike level shall be 0.10.
- (3) **NUMBER OF STRIKE LEVELS LISTED** – Twenty-three (23) strike levels will be listed for each Daily Crude Oil Binary Contract Series.
- (4) **STRIKE LEVELS GENERATED** - Strike levels will be generated such that Binary Contract “Y” is valued ‘at-the-money’ in relation to the Underlying market as determined by the Source Agency, immediately before the issuance of these Contracts, and shall be measured in U.S. cents rounded to the nearest value ending in 0.5 as reported by the Source Agency. Eleven (11) strike levels will be generated above Binary Contract Y at an interval of 0.10, and eleven (11) strike levels will be generated below Binary Contract Y at an interval of 0.10 (e.g. $Y - 0.10$; Y ; $Y + 0.10$). The Contract will have a Payout Criterion of greater than the strike level value.

(iii) **INTRADAY CRUDE OIL BINARY CONTRACTS**

- (1) **EXPIRATION TIME** – 10:00AM, 11:00AM, 12:00PM, 1:00PM, 2:00PM ET CLOSE
- (2) **STRIKE INTERVAL WIDTH** – The interval width between each strike level shall be 0.2.
- (3) **NUMBER OF STRIKE LEVELS LISTED** - Nine (9) strike levels will be listed for each Intraday Crude Oil Binary Contract Series.
- (4) **STRIKE LEVELS GENERATED** - Strike levels will be generated such that Binary Contract “Z” is valued ‘at-the-money’ in relation to the Underlying market as determined by the Source Agency, immediately before the issuance of these Contracts, and shall be measured in U.S. cents rounded to the nearest value ending in 0.01 as reported by the Source Agency. Four (4) strike levels

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will be generated above Binary Contract Z at an interval of 0.2, and four (4) strike levels will be generated below Binary Contract Z at an interval of 0.2 (e.g. $Z - 0.2$; Z ; $Z + 0.2$). The Contract will have a Payout Criterion of greater than the strike level value.

(iv) Nadex may list additional Crude Oil Binary Contract with different ranges of Payout Criteria on a discretionary basis in accordance with the CEA and Commission Regulations.

(g) MINIMUM TICK – The Minimum Tick size for the Crude Oil Binary Contract shall be \$0.25.

(h) POSITION LIMIT – The Position Limits for the \$100 Crude Oil Binary Contracts shall be 2,500 Contracts.

(i) LAST TRADING DATE – The Last Trading Date in a Series is the same date as the Expiration Date.

(j) SETTLEMENT DATE – The Settlement Date will be the date on which the Crude Oil Binary Contract as reported by the Source Agency.

(k) EXPIRATION DATE – The Expiration Date of the Contract will be the date on which the Crude Oil price or level is released by the Source Agency.

(l) SETTLEMENT VALUE – The Settlement Value is the amount paid to the holder of the in the money Contract on the Settlement Date. The Settlement Value of an in the money Crude Oil Binary Contract is \$100.

(m) EXPIRATION VALUE – The Expiration Value is the price or value of Crude Oil released by the Source Agency on the Expiration Date. The Expiration Value is calculated by the Source Agency by taking all the last twenty-five (25) CFC trade prices occurring in the ten (10) seconds leading up just prior to the close of trading of the Crude Oil Binary Contract, provided at least twenty-five (25) trade prices are captured during the ten (10) second period, and removing the highest twenty (20) percent of five (5) CFC trade prices and the lowest twenty (20) percent of five (5) CFC trade prices in the data set⁴, and using the remaining fifteen (15) CFC trade prices in the data set, to calculate the Expiration Value. The calculation used is a simple average of the remaining CFC trade prices in the data set, all fifteen (15) CFC trade prices, rounded to one decimal point past the precision of the underlying market. In the event the time it takes to collect at least twenty-five (25) CFC trade prices exceeds the ten (10) seconds just prior to the close of trading of the Crude Oil Binary Contract, the Expiration Value is calculated by the Source Agency by taking the last twenty-five (25) CFC trade prices just prior to the close of

⁴ If 20% of the data set would result in a non-integer number of trade prices, the number of trade prices to be removed from the set will be rounded down. For example, if the number of trade prices collected during the last 10 seconds prior to the close of trading was 31, 20% of the data set would be 6.2 trade prices. As 6.2 is a non-integer number, the value will be rounded down, and the 6 highest and 6 lowest trade prices will be removed from the data set.

trading of the Crude Oil Binary Contract removing the highest five (5) CFC trade prices and the lowest five (5) CFC trade prices, and using the remaining fifteen (15) CFC trade prices to calculate the Expiration Value. The calculation used is a simple average of all fifteen (15) CFC trade prices, rounded to one decimal point past the precision of the underlying market.

(n) CONTINGENCIES – If no level is actually announced on the Expiration Date due to a delay, postponement or otherwise in such release announcement by the Source Agency, the Settlement Date will be delayed until the Underlying number is released for that Series.

RULE 12.10 NATURAL GAS VARIABLE PAYOUT CONTRACTS

(a) SCOPE – These Rules shall apply to the Class of Contracts referred to as the Natural Gas Variable Payout Contracts issued by Nadex.

(b) UNDERLYING – The Underlying for this Class of Contracts is the Natural Gas price per mmBtu (millions British thermal units, in US dollars), obtained from the Natural Gas Futures contracts (“NFC”) traded on the New York Mercantile Exchange (“NYMEX”®).⁵ The NFC trade prices that will be used for the Underlying will be taken from all twelve NFC delivery months: January, February, March, April, May, June, July, August, September, October, November, or December (each an “NFC Delivery Month”). The date on which a new delivery month will be used as the Underlying for Nadex contracts (i.e. “Start Date”) is one calendar day after the End Date for the previous delivery month contract. The last day on which a delivery month will be used as the Underlying for Nadex contracts (i.e. “End Date”) is the Friday of the week preceding the Underlying futures contracts Expiration Date. If the Underlying futures contracts Expiration Date falls on a Monday, the End Date for that specific delivery month will be the Friday of the week preceding the week of the Underlying futures contracts Expiration Date, i.e. not the Friday that is one business day prior to the Monday Expiration Date. For example, the Nymex Natural Gas February 2012 futures have an Expiration Date of January 27, 2012. The last day on which the Natural Gas February 2012 futures prices will be used as the Underlying for Nadex contracts and to calculate the Expiration Value on the Expiration Date for the relevant Natural Gas contracts will be the Friday of the preceding week. Therefore, the End Date for using Nymex Natural Gas February 2012 futures will be January 20, 2012 and the Start Date for the next delivery month, Nymex Natural Gas March 2012 futures, will be January 21, 2012. The Nymex Natural Gas March 2012 futures, however, have an Expiration Date of Monday, February 27, 2012. The last day on which the Natural Gas March 2012 futures prices will be as the Underlying for Nadex contracts and to calculate the Expiration Value on the Expiration Date for the relevant Natural Gas contracts will be February 17, 2012, rather than February 24, 2012, and the Start Date for the next delivery month, Nymex Natural Gas April 2012 futures will be February 18, 2012.

(c) SOURCE AGENCY – The Source Agency is Nadex.

(d) TYPE – The type of Contract is a Variable Payout Contract.

⁵ *Supra*, at fn 4.

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(e) ISSUANCE – For each planned release by the Source Agency of the Underlying, Nadex will issue various Contracts, each of a different Series. A new issuance of Contracts will commence no later than two (2) business days following the Expiration Date.

(f) PAYOUT CRITERION – The Payout Criterion for each Contract will be set by Nadex at the time the Variable Payout Contracts are initially issued. For the Natural Gas Variable Payout Contract, the Payout Criteria for the Contracts will be set as follows;

(i) DAILY NATURAL GAS CALL SPREAD VARIABLE PAYOUT CONTRACTS, 2:30 PM ET CLOSE - At the commencement of trading in a Daily Natural Gas Call Spread Variable Payout Contract, referred to as a ‘Call Spread’, Nadex shall list one (1) Call Spread Payout Contract, which conforms to the Payout Criteria listed below:

(1) DAILY NATURAL GAS CALL SPREAD CONTRACT

(aa) CEILING – The Ceiling shall be $X + 0.5$.

(bb) FLOOR – The Floor shall be $X - 0.5$.

(cc) DOLLAR MULTIPLIER – The Dollar Multiplier shall be 1000.

(2) In each case, “X” equals the last Natural Gas price, as reported by the Source Agency, rounded to the nearest 0.1.

(ii) DAILY NATURAL GAS CALL SPREAD CONTRACTS, 2:30 PM ET CLOSE - Nadex shall list a set of three (3) Call Spread Contracts with overlapping ranges, which conform to the Payout Criteria listed below:

(1) CONTRACT 1: The Ceiling shall be X ; The Floor shall be $X - 0.5$.

(2) CONTRACT 2: The Ceiling shall be $X + 0.25$; The Floor shall be $X - 0.25$.

(3) CONTRACT 3: The Ceiling shall be $X + 0.5$; The Floor shall be X .

(4) DOLLAR MULTIPLIER – The Dollar Multiplier shall be 1000.

(5) In each case, “X” equals the last Natural Gas price, as reported by the Source Agency, rounded to the nearest 0.1.

(iii) INTRADAY NATURAL GAS CALL SPREAD CONTRACTS, 8AM ET to 2:30 PM ET CLOSE - Nadex shall list a set of three (3) Call Spread Contracts with overlapping ranges, which conform to the Payout Criteria listed below:

(1) CONTRACT 1: The Ceiling shall be X ; The Floor shall be $X - 0.4$.

(2) CONTRACT 2: The Ceiling shall be $X + 0.2$; The Floor shall be $X - 0.2$.

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(3) CONTRACT 3: The Ceiling shall be $X + 0.4$; The Floor shall be X .

(4) DOLLAR MULTIPLIER – The Dollar Multiplier shall be 1000.

(5) In each case, “X” equals the last Natural Gas price, as reported by the Source Agency, rounded to the nearest 0.1.

(iv) INTRADAY 2-HOUR NATURAL GAS CALL SPREAD CONTRACTS, 10:00AM, 11:00AM, 12:00PM, 1:00PM and 2:00PM ET CLOSE - Nadex shall list a set of three (3) Call Spread Contracts that open 2 hours prior to the stated closing time(s) above with overlapping ranges, which conform to the Payout Criteria listed below:

(1) CONTRACT 1: The Ceiling shall be X ; The Floor shall be $X - 0.2$.

(2) CONTRACT 2: The Ceiling shall be $X + 0.1$; The Floor shall be $X - 0.1$.

(3) CONTRACT 3: The Ceiling shall be $X + 0.2$; The Floor shall be X .

(4) DOLLAR MULTIPLIER – The Dollar Multiplier shall be 1000.

(5) In each case, “X” equals the last Natural Gas price, as reported by the Source Agency, rounded to the nearest 0.05.

(v) Nadex may list additional Call Spread Contracts with different ranges of Payout Criteria on a discretionary basis in accordance with the CEA and Commission Regulations.

(g) MINIMUM TICK – The Minimum Tick size for Natural Gas Call Spread Contracts shall be 0.001.

(h) POSITION LIMIT – The Position Limits for Natural Gas Call Spread Contracts shall be 25,000 Contracts.

(i) LAST TRADING DATE – The Last Trading Date for this Contract is the same date as the Settlement Date.

(j) SETTLEMENT DATE – The Settlement Date of the Contract shall be the same date as the Expiration Date.

(k) EXPIRATION DATE – The Expiration Date of the Contract shall be the date on which the Natural Gas Expiration Value is released by the Source Agency.

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(l) SETTLEMENT VALUE – The Settlement Value is the amount paid to the holder of either a Short or Long Variable Payout Contract on Settlement Date. The Settlement Value of a Variable Payout Contract is determined as described in the definition for Long and Short Variable Payout Contracts.

(m) EXPIRATION VALUE – The Expiration Value is the price or value of Natural Gas released by the Source Agency on the Expiration Date. The Expiration Value is calculated by the Source Agency by taking all the last twenty-five (25) NFC trade prices occurring in the ten (10) seconds leading up just prior to the close of trading of the Natural Gas Call Spread Contract, provided at least twenty-five (25) trade prices are captured during the ten (10) second period, and removing the highest twenty (20) percent of five (5) NFC trade prices and the lowest twenty (20) percent of five (5) NFC trade prices in the data set⁶, and using the remaining fifteen (15) NFC trade prices in the data set, to calculate the Expiration Value. The calculation used is a simple average of all the remaining NFC trade prices in the data set, all fifteen (15) NFC trade prices, rounded to one decimal point past the precision of the underlying market. In the event the time it takes to collect at least twenty-five (25) NFC trade prices exceeds the ten (10) seconds just prior to the close of trading of the Natural Gas Call Spread Contract, the Expiration Value is calculated by the Source Agency by taking the last twenty-five (25) NFC trade prices just prior to the close of trading of the Natural Gas Call Spread Contract removing the highest five (5) NFC trade prices and the lowest five (5) NFC trade prices, and using the remaining fifteen (15) NFC trade prices to calculate the Expiration Value. The calculation used is a simple average of all fifteen (15) NFC trade prices, rounded to one decimal point past the precision of the underlying market.

(n) CONTINGENCIES – If no level is actually announced on the Expiration Date due to a delay, postponement or otherwise in such release announcement by the Source Agency, the Settlement Date will be delayed until the Underlying number is released for that Series.

RULE 12.11 NATURAL GAS BINARY CONTRACTS

(a) SCOPE – These Rules shall apply to the Class of Contracts referred to as the Natural Gas Binary Contract issued by Nadex.

(b) UNDERLYING – The Underlying for this Class of Contracts is the Natural Gas price per mmBtu (millions British thermal units, in US dollars), obtained from the Physical Natural Gas Futures contracts (“NFC”) traded on the New York Mercantile Exchange (“NYMEX”⁷). The NFC trade prices that will be used for the Underlying will be taken from all twelve NFC delivery months: January, February, March, April, May, June, July, August, September, October, November, or December (each an “NFC Delivery Month”). The date on which a new delivery month will be used as the Underlying for Nadex contracts (i.e. “Start Date”) is one calendar day after the End Date for the previous delivery month contract. The last day on which a delivery

⁶ If 20% of the data set would result in a non-integer number of trade prices, the number of trade prices to be removed from the set will be rounded down. For example, if the number of trade prices collected during the last 10 seconds prior to the close of trading was 31, 20% of the data set would be 6.2 trade prices. As 6.2 is a non-integer number, the value will be rounded down, and the 6 highest and 6 lowest trade prices will be removed from the data set.

⁷ *Supra, at fn 4.*

month will be used as the Underlying for Nadex contracts (i.e. “End Date”) is the Friday of the week preceding the Underlying futures contracts Expiration Date. If the Underlying futures contracts Expiration Date falls on a Monday, the End Date for that specific delivery month will be the Friday of the week preceding the week of the Underlying futures contracts Expiration Date, i.e. not the Friday that is one business day prior to the Monday Expiration Date. For example, the Nymex Natural Gas February 2012 futures have an Expiration Date of January 27, 2012. The last day on which the Natural Gas February 2012 futures prices will be used as the Underlying for Nadex contracts and to calculate the Expiration Value on the Expiration Date for the relevant Natural Gas contracts will be the Friday of the preceding week. Therefore, the End Date for using Nymex Natural Gas February 2012 futures will be January 20, 2012 and the Start Date for the next delivery month, Nymex Natural Gas March 2012 futures, will be January 21, 2012. The Nymex Natural Gas March 2012 futures, however, have an Expiration Date of Monday, February 27, 2012. The last day on which the Natural Gas March 2012 futures prices will be as the Underlying for Nadex contracts and to calculate the Expiration Value on the Expiration Date for the relevant Natural Gas contracts will be February 17, 2012, rather than February 24, 2012, and the Start Date for the next delivery month, Nymex Natural Gas April 2012 futures will be February 18, 2012.

(c) SOURCE AGENCY – The Source Agency is Nadex.

(d) TYPE – The Type of Contract is a Binary Contract.

(e) ISSUANCE – For each planned release by the Source Agency of the Underlying, Nadex will issue various Contracts, each of a different Series. A new issuance of Contracts will commence no later than two (2) business days following the Expiration Date.

(f) PAYOUT CRITERION – The Payout Criterion for each Contract will be set by Nadex at the time the Binary Contracts are initially issued. For the Natural Gas Binary Contract, the Payout Criteria for the Contracts will be set as follows:

(i) WEEKLY NATURAL GAS BINARY CONTRACTS

(1) EXPIRATION TIME – 2:30PM ET CLOSE

(2) STRIKE INTERVAL WIDTH – The interval width between each strike level shall be 0.10.

(3) NUMBER OF STRIKE LEVELS LISTED - Thirteen (13) strike levels will be listed for each Weekly Natural Gas Binary Contract Series.

(4) STRIKE LEVELS GENERATED - Strike levels will be generated such that Binary Contract “W” is valued ‘at-the-money’ in relation to the Underlying market as determined by the Source Agency, immediately before the issuance of these Contracts, and shall be measured in U.S. cents rounded to the nearest value ending in either 0.250 or 0.750 as reported by the Source Agency. Six (6) strike levels will be generated above Binary Contract W at an interval of 0.10,

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and six (6) strike levels will be generated below Binary Contract W at an interval of 0.10 (e.g. $W - 0.10$; W ; $W + 0.10$). The Contract will have a Payout Criterion of greater than the strike level value.

(ii) DAILY NATURAL GAS BINARY CONTRACTS

- (1) EXPIRATION TIME – 2:30PM ET CLOSE
- (1) STRIKE INTERVAL WIDTH – The interval width between each strike level shall be 0.02.
- (2) NUMBER OF STRIKE LEVELS LISTED – Fifteen (15) strike levels will be listed for each Daily Natural Gas Binary Contract Series.
- (3) STRIKE LEVELS GENERATED - Strike levels will be generated such that Binary Contract “Y” is valued ‘at-the-money’ in relation to the Underlying market as determined by the Source Agency, immediately before the issuance of these Contracts, and shall be measured in U.S. cents rounded to the nearest value ending in 0.1 as reported by the Source Agency. Seven (7) strike levels will be generated above Binary Contract Y at an interval of 0.02, and seven (7) strike levels will be generated below Binary Contract Y at an interval of 0.02 (e.g. $Y - 0.02$; Y ; $Y + 0.02$). The Contract will have a Payout Criterion of greater than the strike level value.

(iii) INTRADAY NATURAL GAS BINARY CONTRACTS

- (1) EXPIRATION TIME – 10:00AM, 11:00AM, 12:00PM, 1:00PM, 2:00PM ET CLOSE
- (2) STRIKE INTERVAL WIDTH – The interval width between each strike level shall be 0.01.
- (3) NUMBER OF STRIKE LEVELS LISTED - Nine (9) strike levels will be listed for each Intraday Natural Gas Binary Contract Series.
- (4) STRIKE LEVELS GENERATED - Strike levels will be generated such that Binary Contract “Z” is valued ‘at-the-money’ in relation to the Underlying market as determined by the Source Agency, immediately before the issuance of these Contracts, and shall be measured in U.S. cents rounded to the nearest value ending in 0.01 as reported by the Source Agency. Four (4) strike levels will be generated above Binary Contract Z at an interval of 0.01, and four (4) strike levels will be generated below Binary Contract Z at an interval of 0.01 (e.g. $Z - 0.01$; Z ; $Z + 0.01$). The Contract will have a Payout Criterion of greater than the strike level value.

(iv) Nadex may list additional Natural Gas Binary Contract with different ranges of Payout Criteria on a discretionary basis in accordance with the CEA and Commission Regulations.

(g) MINIMUM TICK – The Minimum Tick size for Natural Gas Binary Contracts shall be \$0.25.

(h) POSITION LIMIT – The Position Limits for Natural Gas Binary Contracts shall be 2,500 Contracts.

(i) LAST TRADING DATE – The Last Trading Date in a Series is the same date as the Expiration Date.

(j) SETTLEMENT DATE – The Settlement Date will be the same date as the Expiration Date.

(k) EXPIRATION DATE – The Expiration Date of the Contract will be the date on which the Natural Gas Expiration Value is released by the Source Agency.

(l) SETTLEMENT VALUE – The Settlement Value is the amount paid to the holder of the in the money Contract on Settlement Date. The Settlement Value of an in the money Natural Gas Binary Contract is \$100.

(m) EXPIRATION VALUE – The Expiration Value is the price or value of Natural Gas released by the Source Agency on the Expiration Date. The Expiration Value is calculated by the Source Agency by taking all the last twenty-five (25) NFC trade prices occurring in the ten (10) seconds leading up just prior to the close of trading of the Natural Gas Binary Contract, and provided at least twenty-five (25) trade prices are captured during the ten (10) second period, and removing the highest twenty (20) percent of five (5) NFC trade prices and the lowest twenty (20) percent of five (5) NFC trade prices in the data set⁸, and using the remaining fifteen (15) NFC trade prices in the data set, to calculate the Expiration Value. The calculation used is a simple average of all the remaining NFC trade prices in the data set, all fifteen (15) NFC trade prices, rounded to one decimal point past the precision of the underlying market. In the event the time it takes to collect at least twenty-five (25) NFC trade prices exceeds the ten (10) seconds just prior to the close of trading of the Natural Gas Binary Contract, the Expiration Value is calculated by the Source Agency by taking the last twenty-five (25) NFC trade prices just prior to the close of trading of the Natural Gas Binary Contract removing the highest five (5) NFC trade prices and the lowest five (5) NFC trade prices, and using the remaining fifteen (15) NFC trade prices to calculate the Expiration Value. The calculation used is a simple average of all fifteen (15) NFC trade prices, rounded to one decimal point past the precision of the underlying market.

⁸ If 20% of the data set would result in a non-integer number of trade prices, the number of trade prices to be removed from the set will be rounded down. For example, if the number of trade prices collected during the last 10 seconds prior to the close of trading was 31, 20% of the data set would be 6.2 trade prices. As 6.2 is a non-integer number, the value will be rounded down, and the 6 highest and 6 lowest trade prices will be removed from the data set.

(n) CONTINGENCIES – If no level is actually announced on the Expiration Date due to a delay, postponement or otherwise in such release announcement by the Source Agency, the Settlement Date will be delayed until the Underlying number is released for that Series.

RULES 12.12 – 12.78 [UNCHANGED]

End of Rulebook.

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