

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-74511; File No. SR-OCC-2015-006)

March 16, 2015

Self-Regulatory Organizations; The Options Clearing Corporation; Notice of Filing of Proposed Rule Change Concerning the Provision of Clearance and Settlement Services for Energy Futures and Options on Energy Futures

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)¹ and Rule 19b-4 thereunder² notice is hereby given that on March 2, 2015, The Options Clearing Corporation (“OCC”) filed with the Securities and Exchange Commission (“Commission”) the proposed rule change as described in Items I, II, and III below, which Items have been prepared primarily by OCC. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Clearing Agency’s Statement of the Terms of Substance of the Proposed Rule Change

The purpose of this proposed rule change by The Options Clearing Corporation (“OCC”) is to provide clearance and settlement services for energy futures contracts (“Energy Futures”) and options on Energy Futures contracts. In order to do so, OCC is proposing to add new risk models to its STANS methodology as well as to add a new “Schedule C” to the Agreement for Clearing and Settlement Services between OCC and NASDAQ Futures, Inc. (“NFX”) (the “Clearing Agreement”).³

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ The Clearing Agreement is the subject of a pending proposed rule change by filed OCC (SR-OCC-2015-03). This proposed rule change has not yet been published by the Commission. SR-OCC-2015-03 is publically available at:
http://www.theocc.com/components/docs/legal/rules_and_bylaws/sr_occ_15_03.pdf.

II. Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, OCC included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. OCC has prepared summaries, set forth in sections (A), (B), and (C) below, of the most significant aspects of these statements.

(A) Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of this proposed rule change is to provide clearance and settlement services for Energy Futures and options on Energy Futures. As described more fully below, OCC is proposing to add new risk models to its STANS methodology that are designed to risk manage Energy Futures.⁴ The STANS methodology already accommodates the margining of futures and futures options and, after adopting the models described in this proposed rule change, Energy Futures would be risk managed using the same methodology as futures products currently cleared and settled by OCC.⁵ In addition, OCC is proposing to add a new Schedule C to the

(The staff notes that the rule change was filed by the Commission on March 4, 2015 and subsequently published in the *Federal Register*. See Securities Exchange Act Release No. 74432 (March 4, 2015), 80 FR 12652 (March 10, 2015)).

⁴ OCC believes that its existing risk models for options on futures contracts would appropriately manage risk for options on Energy Futures when used in conjunction with the proposed new risk models for Energy Futures.

⁵ OCC would compute initial margin requirements for segregated futures accounts through the Standard Portfolio Analysis of Risk ("SPAN"®) margin calculation system without further modification, subject to OCC's collection of enhanced margin to be deposited in the segregated futures account in the event that the margin requirement as calculated under STANS would exceed the requirement calculated under SPAN. See Securities Exchange Act Release No. 72331 (June 5, 2014), 79 FR 33607 (June 11, 2014) (SR-

Clearing Agreement since Energy Futures and options on Energy Futures are not types of contracts for which OCC has previously agreed to provide clearance and settlement services to NFX.

Energy Futures Background

OCC is proposing to clear and settle 25 Energy Futures and 3 futures options that are proposed to be traded on NFX.⁶ These 25 Energy Futures include 9 futures contracts on petrol and natural gas products, 3 of which will have related options contracts, and 16 futures contracts on electricity. The proposed Energy Futures contracts are all cash-settled futures products, and the three options on futures contracts (as described below) will settle into the underlying Energy Futures contract. All of the Energy Futures contracts are “look-alike” products to futures products already traded on U.S. futures exchanges and cleared by other Derivatives Clearing Organizations (“DCOs”).⁷

Proposed Petrol and Natural Gas Futures Products

NFX will list petrol and natural gas futures contracts and options on petrol futures contracts. The futures are based on a variety of refined oil fuels and natural gasses that are commonly used for hedging market participants’ portfolios. Specifically, NFX will list the following cash-settled petrol and natural gas futures contracts: NFX Brent Crude Financial

OCC-2014-13). *See also* Securities Exchange Act Release No. 74268 (February 12, 2015), 80 FR 8917 (February 19, 2015) (SR-OCC-2014-24). This rule change has been approved by the Commission.

⁶ Energy Futures and options on Energy Futures would trade during overnight trading sessions. *See* Securities Exchange Act Release No. 74241 (February 10, 2015), 80 FR 8383 (February 17, 2015) SR-OCC-2014-812.

⁷ More specifically, Energy Futures are look-alike products to futures products that are currently traded on the New York Mercantile Exchange, Inc. and ICE Futures, U.S., and cleared by the Chicago Mercantile Exchange Inc. and ICE Clear U.S., Inc., respectively.

Futures (BFQ), NFX Gasoil Financial Futures (GOQ), NFX Heating Oil Financial Futures (HOQ), NFX WTI Crude Oil Financial Futures (CLQ), NFX RBOB Gasoline Financial Futures (RBQ), NFX Henry Hub Natural Gas Financial Futures – 10,000 (HHQ), NFX Henry Hub Natural Gas Financial Futures – 2,500 (NNQ), NFX Henry Hub Natural Gas Penultimate Financial Futures – 2,500 (NPQ) and NFX Henry Hub Natural Gas Penultimate Financial Futures – 10,000 (HUQ).

Further, NFX will list options on NFX WTI Crude Financial Futures (LOQ), NFX Brent Crude Financial Futures (BCQ) and the NFX Henry Hub Penultimate Financial Futures (LNQ) that settle directly into the referenced futures contract.

Proposed Electricity Futures Products

NFX will also list electricity futures. These electricity futures are based on electricity prices at different hubs and smaller nodes from across the United States reflecting different power distribution grids and circuits and are look-alike products to products traded on ICE Futures, U.S. and cleared by ICE Clear U.S., Inc. For each of these nodes, there is a “peak” and “off-peak” future representing prices at time periods in the day when electricity usage is high compared to when the demand on the grid is lower. The electricity futures NFX selected for listing are the most popular nodes and hubs within the electricity futures market. More specifically, NFX will list the following electricity contracts, to be settled on final settlement prices based on an average regional transmission organization, independent system operator (“ISO”) published real-time or day-ahead locational marginal prices (“LMPs”)⁸ for a pre-determined set of peak or off-peak hours for a contract month:

⁸ Locational marginal pricing reflects the value of the energy at the specific location and time it is delivered.

- NFX ISO-NE Massachusetts Hub Day-Ahead Off-Peak Financial Future (NOPQ), settling on final settlement prices based on average day-ahead hourly off-peak LMPs for the contract month for the Massachusetts Hub.
- NFX ISO-NE Massachusetts Hub Day-Ahead Peak Financial Futures (NEPQ), settling on final settlement prices based on average day-ahead hourly peak LMPs for the contract month for the Massachusetts Hub.
- NFX MISO Indiana Hub Real-Time Peak Financial Futures (CINQ), settling on final settlement prices based on average real-time hourly peak LMPs for the contract month for the Indiana Hub as published by the Midcontinent Independent System Operator, Inc. (“MISO”).
- NFX MISO Indiana Hub Real-Time Off-Peak Financial Futures (CPOQ), settling on final settlement prices based on average real-time hourly off-peak LMPs for the contract month for the Indiana Hub as published by MISO.
- NFX PJM AEP Dayton Hub Real-Time Peak Financial Futures (MSOQ), settling on final settlement prices based on average real-time hourly peak LMPs for the contract month for the AEP Dayton Hub.
- NFX PJM AEP Dayton Hub Real-Time Off-Peak Financial Futures (AODQ), settling on final settlement prices based on average real-time hourly off-peak LMPs for the contract month for the AEP Dayton Hub.
- NFX PJM Northern Illinois Hub Real-Time Peak Financial Futures (PNLQ), settling on final settlement prices based on average real-time hourly peak LMPs for the contract month for the Northern Illinois Hub.

- NFX PJM Northern Illinois Hub Real-Time Off-Peak Financial Futures (NIOQ), settling on final settlement prices based on average real-time hourly off-peak LMPs for the contract month for the Northern Illinois Hub.
- NFX PJM Western Hub Day-Ahead Off-Peak Financial Futures (PJDQ), settling on final settlement prices based on average day-ahead hourly off-peak LMPs for the contract month for the Western Hub.
- NFX PJM Western Hub Day-Ahead Peak Financial Futures (PJCQ), settling on final settlement prices based on average day-ahead hourly peak LMPs for the contract month for the Western Hub.
- NFX PJM Western Hub Real-Time Off- Peak Financial Futures (OPJQ), settling on final settlement prices based on average real-time hourly off-peak LMPs for the contract month for the Western Hub.
- NFX PJM Western Hub Real-Time Peak Financial Future (PJMQ), settling on final settlement prices based on average real-time hourly peak LMPs for the contract month for the Western Hub.
- NFX CAISO NP-15 Hub Day-Ahead Off-Peak Financial Futures (ONPQ), settling on final settlement prices based on average day-ahead hourly off-peak LMPs for the contract month for the NP-15 Hub.
- NFX CAISO NP-15 Hub Day-Ahead Peak Financial Futures (NPMQ), settling on final settlement prices based on average day-ahead hourly peak LMPs for the contract month for the NP-15 Hub.

- NFX CAISO SP-15 Hub Day-Ahead Off-Peak Financial Futures (OFFQ), settling on final settlement prices based on average day-ahead hourly off-peak LMPs for the contract month for the SP-15 Hub.
- NFX CAISO SP-15 Hub Day-Ahead Peak Financial Futures (SPMQ), settling on final settlement prices based on average day-ahead hourly peak LMPs for the contract month for the SP-15 Hub.

Risk Model Changes

Background

The proposed Energy Futures are look-alike products to energy futures traded on other futures exchanges and cleared by other DCOs. Accordingly, there is a significant amount of historical data and academic literature concerning risk models for energy futures, as discussed below. OCC has used such data and literature in the development of its risk models for Energy Futures.

Based on such data and literature, OCC has identified two characteristics specific to energy futures (compared to futures contracts already cleared, settled and risk managed by OCC) for which new risk models need to be added to the STANS methodology:⁹

- Energy futures prices are known to be more volatile as contracts approach delivery because of the convergence with cash-market prices and the potential for

⁹ In developing its risk models for Energy Futures, OCC also considered a third characteristic, namely that electricity markets are known to be geographically segmented, which can cause abrupt and unanticipated changes in spot prices. However, after reviewing relevant academic literature and performing internal testing, OCC determined that adjusting its futures risk models to account for changes in the spot price of electricity was not appropriate. See Kholopova, M. (2006) “Estimating a two-factor model for the forward curve of electricity,” PhD dissertation.

real-life trading and delivery complications of the underlying commodity. This phenomenon is known as the “Samuelson effect,”¹⁰ and

- The price volatility of certain energy futures display a seasonal pattern (a/k/a “seasonality”).

In order to address these characteristics, OCC has designed multi-factor risk modeling capabilities that can risk model based on up to three factors: a short-run factor, a seasonal factor and a long-run factor. The short-run factor is designed to account for the Samuelson effect, which becomes more pronounced the closer the contract is to maturity (i.e., delivery). The seasonal factor accounts for Energy Futures contracts that display volatility in a seasonal pattern, and the long-run factor accounts for the risk of a given Energy Future not addressed by either the short-run factor or the seasonal factor.

OCC’s multi-factor models can be further categorized as either a two-factor model or three-factor model. The two factor model consists of a short-run and long-run factor, while the three-factor model consists of a short-run factor, long-run factor and seasonality factor.

Two-Factor Model

OCC plans to use a two-factor risk model to compute theoretical prices for NFX Brent Crude Financial Futures contracts and NFX WTI Crude Oil Financial Futures contracts since such futures do not exhibit seasonality.¹¹ The two-factor risk model will derive a given Energy

¹⁰ See Samuelson, Paul A., “Proof that Properly Anticipated Prices Fluctuate Randomly,” *Industrial Management Review*, Vol. 6 (1965). No other futures contracts for which OCC provides clearance and settlement services exhibit the Samuelson effect.

¹¹ See Schwartz, E. and J. Smith (2000) “Short-term variations and long-term dynamics in commodity prices,” *Management Science*, vol. 46, pp. 893-911. The supply of Brent Crude Oil and WTI Crude Oil is not affected by seasonal variation in demand since there are low-cost transportation methods for Brent Crude Oil and WTI Crude Oil as well as the ability to store Brent Crude Oil and WTI Crude Oil.

Future's price based on a long-run factor and a short-run factor. The long-run factor component captures changes to the equilibrium price (i.e., the prevailing market price at a point in time) of a given Energy Future based on factors such as expectations of the exhaustion of existing supply, improving technology for production, the discovery of additional supply of the commodity, inflation and political and regulatory effects. Based on historical data, OCC assumes that such long-run factors cause the equilibrium price for a given Energy Future to evolve according to a stochastic process that accounts for asymmetric skewness and excess kurtosis.¹² The short-run component captures short-run changes in demand or supply due to real-life factors such as variation in the weather or intermittent supply disruptions as well as increased volatility (i.e., the Samuelson effect).¹³ The short-run component of the model is mean reverting; therefore, in the absence of such short-term changes in demand or supply the long-run factor should determine the price for a given Energy Future. Additionally, the short-run is less noticeable as the tenor of the Energy Futures contract increases.

Three-Factor Model

OCC plans to use a three-factor risk model in order to compute theoretical prices for the remainder of the Energy Futures.¹⁴ The three-factor model uses the same long-run and short-run factor components as the two-factor model and adds a seasonality factor. Based on historical

¹² The model assumes that past price information is already incorporated into the current price and the next price movement is conditionally independent of past price movements. Additionally, the long-run factor accounts for "fat tail" events.

¹³ This is often observed as shorter dated futures contracts exhibit greater volatility than longer dated futures contracts.

¹⁴ OCC's proposed model is based upon recent academic literature on energy futures. See Mirantes, A., J. Poblacion and G. Serna (2012) "The stochastic seasonal behavior of natural gas prices," *European Financial Management*, vol. 18, pp. 410-443.

data, all Energy Futures except for Energy Futures on Brent Crude Oil and WTI Crude Oil experience seasonality.¹⁵ In order to address seasonality, OCC would employ a trigonometric function,¹⁶ which captures price dynamics in different seasons.

Based on the above, OCC believes that the proposed enhancements to STANS have been appropriately designed to support the clearance and settlement of Energy Futures, which belief is supported by model back testing results. Moreover, energy futures are not new or novel contracts, and the clearance and settlement of Energy Futures does not present material risk to OCC.¹⁷

Schedule C to the Clearing Agreement

OCC also proposes to add a Schedule C to the Clearing Agreement in order to support the clearance and settlement of Energy Futures and options on Energy Futures. OCC performs clearance and settlement services for NFX pursuant to the Clearing Agreement. Pursuant to the terms of the Clearing Agreement, OCC has agreed to clear the specific types of contracts enumerated in the Clearing Agreement and may agree to clear and settle additional types of contracts through the execution by both parties of a new Schedule C to the Clearing Agreement. Energy Futures and options on Energy Futures are not enumerated in the Clearing Agreement, nor do they fall under an existing Schedule C to the Clearing Agreement. Therefore, a new

¹⁵ This is due to the lack of low-cost transportation and limited, or no, ability to store the commodity.

¹⁶ See note 13 *supra*.

¹⁷ Cleared futures contracts account for less than two percent of OCC's total overall volume and, in 2011, OCC cleared 1,388 contracts traded on NFX. In 2012, OCC cleared 518,360 contracts traded on NFX (NFX did not have any cleared futures contract volume in 2013 and 2014). By way of reference, OCC's average daily cleared contract volume in through February 19, 2015, is 17 million contracts.

Schedule C providing for the clearance and settlement of Energy Futures and options on Energy Futures is required. A copy of such Schedule C is attached hereto as Exhibit 3.

2. Statutory Basis

OCC believes that the proposed rule change is consistent with Section 17A(b)(3)(F) of the Act¹⁸ because it will assure the safeguarding of securities and funds which are in the custody and control of OCC. OCC believes that the proposed rule change assures the safeguarding of securities and funds in the custody and control of OCC because it would permit OCC to risk manage Energy Futures through appropriate risk models as described above. Such risk models would reduce the risk that clearing member margin assets would be insufficient should OCC need to use such assets to close-out the positions of a defaulted clearing member. In addition, the proposed rule change is consistent with Rule 17Ad-22(b)(2) under the Act,¹⁹ because the proposed rule change because would allow OCC to implement risk-based models and parameters, as described above, to set margin requirements for clearing members who trade Energy Futures. The proposed rule change is not inconsistent with any existing OCC By-Laws or Rules, including any rules proposed to be amended.

(B) Clearing Agency's Statement on Burden on Competition

OCC does not believe that the proposed rule change would impose a burden on competition.²⁰ As described above, the proposed rule change concerns implementation of certain enhancements to OCC's risk models in order to facilitate the margining of clearing member positions in Energy Futures. OCC does not believe that these enhancements will affect the

¹⁸ 15 U.S.C. 78q-1(b)(3)(F).

¹⁹ 17 CFR 240.17Ad-22(b)(2).

²⁰ 15 U.S.C. 78q-1(b)(3)(I).

ability of clearing members or other market participants to clear Energy Futures or otherwise limit market participants' choices for selecting clearing services. In addition, the proposed rule change will uniformly affect all clearing members who trade Energy Futures.

(C) Clearing Agency's Statement on Comments on the Proposed Rule Change Received from Members, Participants or Others

Written comments on the proposed rule change were not and are not intended to be solicited with respect to the proposed rule change and none have been received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period up to 90 days (i) as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) by order approve or disapprove the proposed rule change, or

(B) institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-OCC-2015-006 on the subject line.

Paper Comments:

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-OCC-2015-006. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Section, 100 F Street, N.E., Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filing also will be available for inspection and copying at the principal office of OCC and on OCC's website at

http://www.theocc.com/components/docs/legal/rules_and_bylaws/sr_occ_15_006.pdf

All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly.

All submissions should refer to File Number SR-OCC-2015-006 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission by the Division of Trading and Markets, pursuant to delegated Authority.²¹

Brent J. Fields
Secretary

²¹ 17 CFR 200.30-3(a)(12).