

May 29, 2025

**SUBMITTED VIA CFTC PORTAL**

Secretary of the Commission  
Office of the Secretariat  
U.S. Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21st Street, N.W.  
Washington, D.C. 20581

Re: KalshiEX LLC – CFTC Regulation 40.2(a) Notification Regarding the Initial Listing of the “Will nuclear fusion exist before <date>?” Contract

Dear Sir or Madam,

Pursuant to Section 5c(c) of the Commodity Exchange Act and Section 40.2(a) of the regulations of the Commodity Futures Trading Commission, KalshiEX LLC (Kalshi), a registered DCM, hereby notifies the Commission that it is self-certifying the “Will nuclear fusion exist before <date>?” contract (Contract). The Contract will initially be listed on **May 31, 2025**. The Exchange intends to list the contract on a **custom** basis. The Contract’s terms and conditions (Appendix A) includes the following strike conditions:

- **<date>** (the target date)

Along with this letter, Kalshi submits the following documents:

- A concise explanation and analysis of the Contract;
- Certification;
- Appendix A with the Contract’s Terms and Conditions;
- Confidential Appendices with further information; and
- A request for FOIA confidential treatment.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Xavier Sottile  
Head of Markets  
KalshiEX LLC  
xsottile@kalshi.com

KalshiEX LLC

Official Product Name: “Will nuclear fusion exist before <date>?”

Rulebook: FUSION

Summary: Nuclear fusion

Kalshi Contract Category: Science/Technology ▾

Kalshi Internal Category: Science and Technology ▾

May 29, 2025

## CONCISE EXPLANATION AND ANALYSIS OF THE PRODUCT AND ITS COMPLIANCE WITH APPLICABLE PROVISIONS OF THE ACT, INCLUDING CORE PRINCIPLES AND THE COMMISSION'S REGULATIONS THEREUNDER

Pursuant to Commission Rule 40.2(a)(3)(v), the following is a concise explanation and analysis of the product and its compliance with the Act, including the relevant Core Principles (discussed in Appendix D), and the Commission's regulations thereunder.

### I. Introduction

The “Will nuclear fusion exist before <date>?” Contract is a contract relating to Science and Technology ▾.

Further information about the Contract, including an analysis of its risk mitigation and price basing utility, as well as additional considerations related to the Contract, is included in Confidential Appendices B, C, and D.

Pursuant to Section 5c(c) of the Act and CFTC Regulations 40.2(a), the Exchange hereby certifies that the listing of the Contract complies with the Act and Commission regulations under the Act.

**General Contract Terms and Conditions:** The Contract operates similar to other event contracts that the Exchange lists for trading. The minimum price fluctuation is \$0.01 (one cent). Price bands will apply so that Contracts may only be listed at values of at least \$0.01 and at most \$0.99. Further, the Contract is sized with a one-dollar notional value and has a minimum price fluctuation of \$0.01 to enable Members to match the size of the contracts purchased to their economic risks. As outlined in Rule 5.12 of the Rulebook, trading shall be available at all times outside of any maintenance windows, which will be announced in advance by the Exchange. Members will be charged fees in accordance with Rule 3.6 of the Rulebook. Fees, if they are charged, are charged in such amounts as may be revised from time to time to be reflected on the Exchange’s Website. A new Source Agency can be added via a Part 40 amendment. All instructions on how to access the Underlying are non-binding and are provided for convenience only and are not part of

the binding Terms and Conditions of the Contract. They may be clarified at any time. Furthermore, the Contract's payout structure is characterized by the payment of an absolute amount to the holder of one side of the option and no payment to the counterparty. During the time that trading on the Contract is open, Members are able to adjust their positions and trade freely. The Expiration Value and Market Outcome are determined at or after Market Close. The market is then settled by the Exchange, and the long position holders and short position holders are paid according to the Market Outcome. In this case, "long position holders" refers to Members who purchased the "Yes" side of the Contract and "short position holders" refers to Members who purchased the "No" side of the Contract. If the Market Outcome is "Yes," meaning that an event occurs that is encompassed within the Payout Criterion, then the long position holders are paid an absolute amount proportional to the size of their position and the short position holders receive no payment. If the Market Outcome is "No," then the short position holders are paid an absolute amount proportional to the size of their position and the long position holders receive no payment. Specification of the circumstances that would trigger a Market Outcome of "Yes" are included below in the section titled "Payout Criterion" in Appendix A.

**CERTIFICATIONS PURSUANT TO SECTION 5c OF THE COMMODITY EXCHANGE  
ACT, 7 U.S.C. § 7A-2 AND COMMODITY FUTURES TRADING COMMISSION RULE  
40.2, 17 C.F.R. § 40.2**

Based on the above analysis, the Exchange certifies that:

- The Contract complies with the Act and Commission regulations thereunder.
- This submission (other than those appendices for which confidential treatment has been requested) has been concurrently posted on the Exchange's website at <https://kalshi.com/regulatory/filings>.

Should you have any questions concerning the above, please contact the exchange at [ProductFilings@kalshi.com](mailto:ProductFilings@kalshi.com).



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By: Xavier Sottile  
Title: Head of Markets  
Date: May 29, 2025

**Attachments:**

Appendix A - Contract Terms and Conditions

Appendix B (Confidential) - Further Considerations

Appendix C (Confidential) - Source Agency

Appendix D (Confidential) - Compliance with Core Principles

**APPENDIX A – CONTRACT TERMS AND CONDITIONS**

**Official Product Name: “Will nuclear fusion exist before <date>?”**

**Rulebook: FUSION**

## FUSION

**Scope:** These rules shall apply to this contract.

**Underlying:** The Underlying for this Contract is the achievement of sustained net energy production from a nuclear fusion reaction after Issuance and before <date>. Revisions to the Underlying made after Expiration will not be accounted for in determining the Expiration Value.

**Source Agency:** The Source Agencies are the International Atomic Energy Agency (IAEA), the U.S. Department of Energy, ITER Organization, National Ignition Facility, Nature, Science, Physical Review Letters, Physical Review X, The New York Times, the Associated Press, Bloomberg News, Reuters, Financial Times, MIT Technology Review, IEEE Spectrum, Physics Today, and official announcements from fusion research facilities.

**Type:** The type of Contract is an Event Contract.

**Issuance:** After the initial Contract, Contract iterations will be listed on an as-needed basis at the discretion of the Exchange and corresponding to the risk management needs of Members.

**<date>:** <date> refers to a calendar date specified by the Exchange. The Exchange may list iterations of the Contract corresponding to variations of <date>.

**Payout Criterion:** The Payout Criterion for the Contract encompasses the Expiration Values that a nuclear fusion reactor has achieved sustained net energy gain with  $Q > 1$  for at least 30 continuous seconds, where total energy output exceeds total energy input, with such achievement occurring after Issuance and before <date>.

For the purpose of this Contract:

- “Nuclear fusion reactor” means any device that produces energy through nuclear fusion of light atomic nuclei (including tokamaks, stellarators, inertial confinement fusion, or other approaches).
- “ $Q > 1$ ” means the ratio of fusion energy produced to total energy input required to sustain the reaction exceeds 1.0.
- “Total energy input” includes all energy required to operate the fusion reaction, including:
  - Heating/compression energy (lasers, magnetic fields, etc.)
  - Energy to maintain confinement systems
  - Auxiliary power for diagnostics and control systems
  - Cooling and vacuum systems required for operation
- “Sustained” means continuous fusion reaction for at least 30 seconds without interruption.

- The following do NOT meet the Payout Criterion:
  - Fusion gain lasting less than 30 seconds
  - Theoretical or simulated achievements
  - Cold fusion claims
  - Fission-fusion hybrid reactions
  - Unverified claims without peer review or official confirmation
- Location is irrelevant; any reactor worldwide qualifies.
- Both government and private facilities qualify.

Examples that would resolve to Yes:

- ITER achieves  $Q = 1.2$  for 45 seconds with official announcement
- Private tokamak achieves  $Q = 1.1$  for 5 minutes, verified by DOE
- JET achieves  $Q = 1.05$  for 35 seconds, published in Nature

Examples that would NOT resolve to Yes:

- NIF achieves  $Q = 1.5$  for 0.1 seconds (too short)
- Company claims  $Q > 1$  for 60 seconds but no verification
- Fusion reaction sustained for 2 minutes but  $Q = 0.95$
- Theoretical paper predicts  $Q > 1$  is achievable

**Minimum Tick:** The Minimum Tick size for the Contract shall be \$0.01.

**Position Accountability Level:** The Position Accountability Level for the Contract shall be \$25,000 per strike, per Member.

**Last Trading Date:** The Last Trading Date of the Contract will be the day prior to <date>. The Last Trading Time will be 11:59 PM ET.

**Settlement Date:** The Settlement Date of the Contract shall be no later than the day after the Expiration Date, unless the Market Outcome is under review pursuant to Rule 7.1.

**Expiration Date:** The latest Expiration Date of the Contract shall be one week after <date>. If an event described in the Payout Criterion occurs, expiration will be moved to an earlier date and time in accordance with Rule 7.2.

**Expiration time:** The Expiration time of the Contract shall be 10:00 AM ET.

**Settlement Value:** The Settlement Value for this Contract is \$1.00.

**Expiration Value:** The Expiration Value is the value of the Underlying as documented by the Source Agency on the Expiration Date at the Expiration time.

**Contingencies:** Before Settlement, Kalshi may, at its sole discretion, initiate the Market Outcome Review Process pursuant to Rule 6.3(d) of the Rulebook. If an Expiration Value cannot be determined on the Expiration Date, Kalshi has the right to determine payouts pursuant to Rule 6.3(b) in the Rulebook.