

## 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.