

October 20, 2026

VIA ELECTRONIC SUBMISSION

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

RE: Request for Comment on the Listing of Compute Derivatives Contracts (RIN 3038-AF77)

INTRODUCTION

The Crypto Council for Innovation (“CCI”) and CCI’s Digital Energy Council (DEC) appreciate the opportunity to respond to the Commodity Futures Trading Commission’s (“Commission” or “CFTC”) Request for Comment on the Listing of Compute Derivatives Contracts (the “RFC”), published in the Federal Register on August 21, 2026 (91 Fed. Reg. 54259).

CCI is a global alliance of leaders within the digital assets industry committed to promoting the advantages of digital assets while showcasing their potential for transformation. CCI’s members represent a wide array of businesses from across the digital asset ecosystem, united by a shared objective of advocating for the responsible global regulation of digital assets to unlock economic opportunities, enhance quality of life, promote financial inclusivity, safeguard national security, and counter illicit activities. CCI firmly believes that achieving these goals necessitates well-informed, evidence-driven policies achieved through collaborative participation with regulators in the United States and globally.

DEC, a CCI coalition, brings together leading companies operating across the energy, digital infrastructure, artificial intelligence (AI), and digital asset industries to advance policies that support the development of the energy and computing resources essential to American economic growth and technological leadership.¹

¹See Crypto Council for Innovation, *CCI Expands Mission as Digital Energy Council Joins to Strengthen Energy Policy* (Apr. 17, 2026), [CCI](#). (CCI’s Digital Energy Council, the first member association focused solely on digital energy policy, will advance policies that promote energy development, grid resilience, U.S. competitiveness, and national security, combining CCI’s digital asset policy expertise with DEC’s work on energy security, digital asset mining, and related technologies).

CCI commends the CFTC's proactive decision to issue this request for comment from industry in order to support the efficient and thoughtfully managed development of this commodity market, in particular the derivatives that will be overseen by the Commission.

Our submission is divided into two parts: (i) background to establish additional historical and market context, clarifying the relevance of compute derivatives both to the crypto and energy spaces, and (ii) CCI's direct response to the enumerated RFC questions.

I. BACKGROUND

COMPUTE AS A COMMODITY

Over the last several years, compute has emerged as a highly in-demand economic resource and an increasingly important input into the digital economy. Demand for computational capacity is growing alongside investment in the infrastructure required to produce it, including chips, data centers, network capacity, and abundant sources of energy. Compute has several characteristics that make effective price discovery and risk management increasingly important: capacity is costly to develop, supply cannot always adjust quickly to changes in demand, prices vary materially across hardware, location, availability, and time, and producers and consumers face uncertainty about the future price and availability of capacity. These characteristics create a growing need for the standardization of economic exposure to compute, establish transparent reference prices, and allow market participants to hedge future price risk.

Fortunately, compute is increasingly demonstrating the characteristics of a tradable commodity. Once primarily consumed within vertically integrated technology companies or purchased through bespoke infrastructure arrangements, computational capacity is now available through third-party markets, some with observable prices. Cloud providers, specialized data centers, and other infrastructure operators allow customers to acquire computing capacity without owning the underlying hardware, while emerging marketplaces facilitate transactions across multiple suppliers. As these markets develop, the relevant economic product becomes less the physical processor itself than access to a defined quantity and quality of computational capacity for a specified period of time.

This evolution creates the conditions under which commodity derivatives have historically developed. Compute capacity is economically valuable, supplied by multiple market participants, subject to changing supply and demand, and increasingly capable of being measured and priced through standardized benchmarks. Its value can also vary by hardware, performance, location, and time—characteristics that complicate standardization but do not necessarily preclude it. As discussed below, modern commodity

markets have repeatedly developed mechanisms to translate heterogeneous underlying products into standardized economic exposures.

The evolution of energy commodities and, more recently, Bitcoin demonstrates how derivatives markets can emerge alongside developing spot markets to provide price discovery, liquidity, and tools for managing price risk.

COMPARISON TO THE DEVELOPMENT OF ENERGY COMMODITIES AND DERIVATIVES

The development of modern energy derivatives demonstrates that commodity markets do not require perfectly standardized products or mature spot markets. Crude oil provides a key example. During the 1970s, oil shocks, declining control of major integrated oil companies, and expanding spot trading increased price volatility and weakened the capacity to tightly control pricing. U.S. crude-oil price deregulation in 1981 accelerated this transition.² In 1983, the New York Mercantile Exchange (NYMEX) launched its West Texas Intermediate (WTI) crude oil futures contract, standardizing quantity and quality and establishing delivery at Cushing, Oklahoma.³ WTI subsequently became an important risk-management instrument and a benchmark for transactions in the underlying physical market.

Natural gas presented a more complex challenge because its value depends substantially on transportation infrastructure and location. As federal reforms in the 1980s transformed interstate natural gas from a heavily regulated, contract-driven market toward competitive wholesale trading, greater spot-market activity and price volatility created demand for new hedging tools.⁴ NYMEX introduced natural gas futures in 1990, concentrating liquidity around delivery at Henry Hub in Louisiana. Rather than requiring natural gas at every location to be economically identical, the contract established a standardized reference price that transactions elsewhere could be valued against.

Electricity extended the evolution of trading energy further. Unlike oil or natural gas, electricity is difficult to store economically at scale, must be produced and consumed essentially simultaneously, and can vary significantly in value by location and time. Nevertheless, restructuring of wholesale electricity markets in the 1990s encouraged competitive generation and spot trading, while the resulting price volatility created

² CFTC, *Energy Derivatives: The Regulatory Challenge of a Global Marketplace* — [CFTC historical discussion](#)

³ Purvin & Gertz, *The Role of WTI as a Crude Oil Benchmark* — [WTI Benchmark Study](#)

⁴ EIA, *Natural Gas 1990: Issues and Trends* — useful for the transition to competitive markets and emergence of NYMEX gas futures. [EIA report](#)

commercial demand for risk management.⁵ Electricity futures emerged around standardized delivery locations and periods, demonstrating that a derivatives market does not need to eliminate the underlying commodity's physical complexity. Markets can define a sufficiently standardized economic exposure around which participants can hedge, trade, and discover prices.

Compute shares an important feature with electricity: a GPU-hour (one hour of computational capacity provided by a single graphics processing unit) of available capacity in a particular time interval cannot generally be stored and delivered as the same GPU-hour later. Although hardware can be retained and workloads rescheduled, unused capacity for a past interval is lost. Accordingly, compute forward prices should not be assumed to follow conventional inventory-based cash-and-carry relationships. Instead, expected future utilization, additions to available capacity, technology transitions, energy costs, and location-specific constraints may play a central role in forward pricing. Well-designed futures can aggregate and reveal market expectations about future supply and demand across the AI economy, provided that settlement benchmarks are sufficiently reliable and clearly specified.

Compute presents an additional delivery challenge. Physical delivery of a GPU-hour is not simply a transfer at a specified point: it entails access to functioning capacity over an agreed interval, often under continuing service-level obligations. Two nodes using the same nominal GPU model may differ materially in networking, memory configuration, software environment, availability, and realized performance. A physically settled contract would therefore need detailed eligibility standards, a well-understood cheapest-to-deliver option, verification of performance and uptime, and remedies or penalties for failures that may become apparent during or after the delivery period. Developing those standards could be valuable, but cash settlement offers a parallel route that avoids imposing this full operational framework at the outset.

COMPARISON TO THE DEVELOPMENT OF BITCOIN AS A COMMODITY

Bitcoin provides a more recent and highly relevant example of a new commodity developing a regulated derivatives market. Bitcoin initially traded through nascent spot markets outside the traditional commodity-market infrastructure. As those markets grew, participants developed derivatives to manage or take exposure to Bitcoin's price volatility. In 2015, the CFTC formally determined in the *Coinflip* enforcement action that Bitcoin and other virtual currencies fall within the Commodity Exchange Act's definition of

⁵ Joseph B. Dial, Commissioner, Commodity Futures Trading Commission, Energy Derivatives: The Regulatory Challenge of a Global Marketplace, remarks at the Maguire Oil and Gas Institute, March 7, 1997. [CFTC](#)

“commodity,” establishing that derivatives based on Bitcoin were subject to the CFTC’s regulatory framework.⁶

The market then moved toward standardized, exchange-traded products. In December 2017, CME and Cboe self-certified Bitcoin futures contracts following rigorous engagement with CFTC staff.⁷ Because of the novelty of the underlying market, the Commission conducted a “heightened review” focused on susceptibility to manipulation, settlement, margin, and clearing risk, and the exchanges agreed to enhanced monitoring and risk-management measures.⁸ Importantly, these contracts were cash settled rather than physically delivered, demonstrating that a regulated commodity futures market could develop around a standardized financial exposure and reference price even where the underlying commodity itself was traded through a comparatively new and evolving spot-market structure.

Bitcoin offers a modern and highly relevant example of the adaptability of the commodity derivatives framework. This new asset developed substantial underlying trading and observable market prices, which encouraged commercial and financial demand for standardized exposure and risk management. Exchanges then designed contracts around reference prices derived from an already functioning, comparatively deeper Bitcoin spot market, and brought those contracts within the CFTC’s existing futures-market framework. The Commission did not require the underlying market to resemble traditional physical commodity markets before derivatives could develop. Instead, the regulatory framework accommodated a novel commodity while applying heightened safeguards appropriate to the particular risks presented by the market.

The analogy should not obscure differences in market maturity: compute pricing is often less transparent, more heterogeneous, and more dependent on bilateral service terms than Bitcoin pricing was at the launch of regulated futures. Accordingly, compute contracts may warrant particularly careful review of benchmark representativeness, source independence, manipulation resistance, and settlement methodology before listing.

⁶CFTC, *In re Coinflip, Inc.* (Sept. 17, 2015). The Commission held for the first time that Bitcoin and other virtual currencies are commodities under the CEA. [CFTC – Coinflip Order and Release](#)

⁷CFTC, *Statement on Self-Certification of Bitcoin Products* by CME, CFE and Cantor Exchange (Dec. 1, 2017), [CFTC – Bitcoin Futures Self-Certification](#)

⁸Testimony of CFTC Chairman J. Christopher Giancarlo before the Senate Banking Committee (Feb. 6, 2018), describing the months-long engagement with CME and Cboe, heightened review, manipulation analysis, margin considerations, and enhanced surveillance arrangements. [CFTC – Chairman Giancarlo Testimony](#)

II. REQUEST FOR COMMENT

4. Perpetual Compute Futures

a. Potential Advantages of Perpetual Compute Futures

Perpetual compute futures could provide useful risk-management features for market participants whose exposure to compute is continuous rather than tied to a discrete delivery date. Many consumers purchase computational capacity on an ongoing basis, while producers make long-lived investments in hardware, data centers, power, and related infrastructure. Their economic exposure may therefore extend across months or years. Traditional futures can hedge these risks, but maintaining a continuous hedge requires participants to periodically close expiring positions and establish positions in later-dated contracts.⁹ That process introduces rollover costs, operational complexity, and exposure to differences in liquidity and pricing across contract maturities.

These characteristics suggest that perpetual and fixed-date futures could serve complementary commercial purposes. Fixed-date contracts may be preferable when a participant has exposure associated with a particular procurement period, delivery

⁹A brief explanation of the benefits of perpetual contracts offer a number of operation advantages for long during exposure:

The final fixed-cost component comes from having to continuously roll contracts as they get close to expiry, an unavoidable requirement across even a medium-term time horizon. Each roll requires closing the expiring contract and opening a new position in a later maturity, crossing the calendar spread, and determining the optimal timing within the roll window. The operational and strategic complexity that makes up roll risk is effectively absent in perpetual futures.

A commercial hedger who hedges a one-year exposure using monthly contracts must execute twelve round-trip rolls in a year. Each roll incurs venue fees twice, once when the expiring position is closed and again when the position is reestablished in the next maturity, so a monthly cadence generates twenty-four fee-bearing executions per year. Assuming even a conservative all-in cost of a few basis points per roll (inclusive of the calendar spread paid or realized between the expiring and new contracts, i.e., the profit or loss on the roll itself), the annual drag could reach into the tens of basis points on notional. These figures also exclude the operational costs of managing the roll calendar itself, including the man-hours and overhead of a risk-management function that must track roll windows, time executions, and reconcile positions across maturities, along with any tail risk associated with a poorly executed roll.

Hyperliquid Policy Center, *Perpetual Futures as Complements to Dated Futures*, § 2.1.7 (“Operational Simplicity”),

https://hyperliquidpolicy.org/whitepaperfuturesascomplements/hpc_research_-perpetual_futures_as_complements_to_dated_futures_final.pdf.

obligation, or project milestone. Perpetual contracts may better serve participants with recurring or indefinite exposure to compute prices. The Commission should therefore permit exchanges to develop both structures where the contracts satisfy applicable requirements under the Commodity Exchange Act and Commission regulations, allowing market participants to determine which instruments best address their commercial risks.

A perpetual structure may also concentrate trading and hedging activity in a single continuously available instrument rather than dispersing liquidity across many expiries. This may be particularly valuable while compute derivatives markets are developing. The resulting liquidity can help participants hedge the direction of compute-price risk, although differences between index specifications and actual workloads may complicate hedge ratios and leave residual basis risk.

b. Risks and Appropriate Safeguards

Perpetual compute derivatives may raise risks that warrant careful contract design and oversight. Because perpetual contracts lack expiration and final settlement, their ability to track the underlying commodity depends heavily on the mechanism used to keep the derivative price aligned with the relevant reference price. A poorly constructed benchmark or funding mechanism could allow persistent divergence between the derivative and the underlying market.

The Commission should focus on the integrity of the reference benchmark and the mechanism connecting the perpetual contract to it. Index providers and exchanges should establish transparent methodologies governing eligible price sources, calculation procedures, funding payments, treatment of anomalous data, and procedures for disruptions to underlying markets. Reference indices should draw from sufficiently representative and reliable transaction data, with appropriate protections against manipulation. Exchanges should also maintain surveillance capable of identifying attempts to influence either the derivatives market or the underlying transactions used to calculate the benchmark.

A benchmark need not perfectly replicate every bilateral compute procurement arrangement to support a useful cash-settled hedge. What matters is that its economic exposure is unambiguous, its methodology is credible and resistant to manipulation, and its basis relative to commercial exposures can be understood and measured. Even where basis risk remains material, a liquid contract may provide meaningful directional protection compared with having no hedge at all. The Commission should nonetheless expect exchanges to disclose basis limitations and avoid implying that an index is representative of capacity it does not measure.

In evaluating proposed benchmarks, the Commission should consider the tradeoffs among executed transaction prices, publicly posted offers, and surveyed or contributed rates. Executed transactions can provide stronger evidence of realizable prices, but may be sparse, privately negotiated, or difficult to normalize for hardware configuration and service terms. Posted prices may be more observable yet not reflect executable capacity, while surveyed rates can broaden coverage but require controls for contributor selection, conflicts, stale submissions, and verification. Exchanges should explain source hierarchy, transaction eligibility, volume weighting, outlier treatment, publication frequency, and independent governance. Rather than endorsing a particular provider at this stage, CCI encourages the Commission to assess proposed data sources against these objective criteria.

Transparency regarding benchmark methodology should not substitute for meaningful visibility into the data underlying the reference price. Although commercially sensitive transaction information may warrant confidentiality protections, exchanges and benchmark administrators should be able to demonstrate that inputs are independently verifiable, sufficiently representative of the defined compute exposure, and accessible to appropriate regulatory oversight. For benchmarks relying on proprietary or surveyed data, disclosures and controls should provide sufficient information about contributor composition, submission quality, validation practices, and material changes in data coverage to permit market participants to assess benchmark reliability without requiring public disclosure of individual confidential transactions.

Respectfully,



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