



October 1, 2025

Via Electronic Submission

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

Re: Request for Input on All Recommendations for the CFTC in the President's Working Group on Digital Asset Markets

Dear Mr. Kirkpatrick:

Paradigm Operations LP (“Paradigm”) appreciates the opportunity to respond to the request for input (the “RFI”) by the Commodity Futures Trading Commission (“Commission” or “CFTC”) on the recommendations made by the President’s Working Group on Digital Asset Markets (the “PWG”) in its July 30, 2025 report (the “PWG Report”).¹ Paradigm is a registered investment adviser that manages funds focused on crypto and related technologies.²

The PWG Report lays out a federal roadmap for “fit-for-purpose” regulation of the digital asset ecosystem. We commend the Commission’s continued efforts to engage stakeholders on how to best enact this vision. Demand only continues to grow in this sector, especially for the trading of “perpetual” style derivatives and other instruments on decentralized finance (“DeFi”) protocols, and for access to prediction markets. But capitalizing on this momentum requires the Commission to act quickly.

The scope of the Commission’s RFI is far-reaching, as befits an effort by the Commission to consider the vast waterfront of crypto. In an effort to provide focused comment on those issues that we regard as especially pressing, we focus on the PWG Report’s time-sensitive recommendation that the CFTC “use [its] existing authorities to *immediately* enable the trading of digital assets at the Federal level.”³ This letter outlines

¹ STRENGTHENING AMERICAN LEADERSHIP IN DIGITAL FINANCIAL TECHNOLOGY, PRESIDENT’S WORKING GROUP ON DIGITAL ASSET MARKETS (July 30, 2025), *available at* <https://www.whitehouse.gov/crypto/> (“PWG REPORT”).

² More information about Paradigm is available online at <https://www.paradigm.xyz/>.

³ PWG REPORT at 6 (emphasis added).

explicit actions that the Commission should take with all deliberate speed to provide clarity and guidance to crypto in short order.

First, we ask the Commission to provide tailored exemptive relief for trading derivatives on DeFi protocols by the end of this year. Second, we urge the Commission to codify a clear standard for what it means for an event contract to “involve” gaming or another enumerated activity in Section 5c(c)(5)(C) of the Commodity Exchange Act (“CEA”) and thus be subject to potential prohibition. Finally, consistent with the PWG Report’s recommendations for jurisdictional clarity, we ask the Commission to coordinate with the Securities and Exchange Commission (“SEC”) to issue a clear test for which agency oversees which event contracts based on corporate events that solidifies the CFTC’s role as primary regulator of prediction markets.

Supporting Innovation by Promoting DeFi

The PWG Report clearly supports DeFi innovation.⁴ To that end, the PWG tasked Congress, the SEC and the CFTC with providing guidance about the applicability of registration requirements to DeFi activities.⁵ Because DeFi is integral to the digital asset ecosystem, this guidance is critical to deliver on the PWG’s vision of “position[ing] the United States as a leader in the global crypto economy.”⁶

A DeFi Innovation Exemption Is Needed to Unlock the U.S. Perpetuals Market

Perpetual contracts—contracts without an expiration date—account for 93% of all cryptocurrency derivatives trading.⁷ This is unsurprising. Perpetual contracts closely track the spot market but offer more liquidity because they enable trading without the cost or risk of financing or custodial physical assets. Indeed, classic examples of these

⁴ See, e.g., *Strengthening American Leadership in Digital Financial Technology* (Jan. 23, 2025), available at <https://www.whitehouse.gov/presidential-actions/2025/01/strengthening-american-leadership-in-digital-financial-technology/> (advocating for the support of “responsible growth and use of digital assets, blockchain technology, and related technologies across all sectors of the economy, including by... providing regulatory clarity and certainty built on technology-neutral regulations [and] frameworks that account for emerging technologies”) (emphases added) (“PWG EO”); PWG REPORT at 51-52, 106-07, 138, 141-42, 146 (encouraging Congress and agencies, including the Commission, to provide relief for DeFi service providers from certain requirements, to revise existing regulations to support DeFi protocols, and to provide clarity on the applicability of existing requirements).

⁵ PWG REPORT at 6, 51-52, 106-07, 138, 141-42, 146.

⁶ *Id.* at 57-58 (“The integration of DeFi into mainstream finance has the potential to unlock new economic opportunities and drive significant advancements across various industries and sectors.”).

⁷ Qihong Ruan & Artem Streltsov, *Perpetual Futures Contracts and Cryptocurrency Market Quality: Insights from Emerging Markets*, Cornell SC Johnson Coll. of Bus. (Feb. 25, 2025), available at <https://business.cornell.edu/article/2025/02/perpetual-futures-contracts-and-cryptocurrency>; *CFTC Staff Seek Public Comment Regarding Perpetual Contracts in Derivatives Markets*, Release No. 9069-25 (Apr. 21, 2025), available at <https://www.cftc.gov/PressRoom/PressReleases/9069-25> (acknowledging the “significant interest” for perpetual contracts generally).

derivatives include perpetuals on the spot price of Bitcoin or ETH, which provide traders with exposure to price movements of Bitcoin or ETH, respectively, without a fixed expiration date. Perpetual contracts allow traders to hedge and mitigate crypto-related risks, while holding their positions indefinitely, thus removing the friction and cost of rolling over contracts.

Trading perpetual contracts on DeFi protocols supercharges these benefits. For example, the auditability of a DeFi protocol enhances market transparency and efficiency, further spurring liquidity. Non-custodial settlement and real-time, programmatic margining lower intermediary and settlement risk, further reducing friction and cost. It is no wonder that there is surging demand for trading perpetual contracts on DeFi protocols.⁸

Unfortunately, burdensome and old-fashioned regulation has blocked U.S. access to this market. DeFi derivatives protocol designers and interface providers have been forced to geofence U.S. users from those protocols, and several of them have faced enforcement actions when the Commission second-guessed their access restrictions.⁹ So rather than creating a roadmap for American innovation, the Commission has put up a wall keeping innovation offshore.

To unlock this market, the Commission should provide DeFi protocols with a limited public-interest exemption from the swap execution facility (“SEF”) and designated contract market (“DCM”) registration requirements for perpetual contract trading.¹⁰ A tailored exemption would support innovation in this evolving market while furthering the Commission’s regulatory objectives, as spelled out in the CEA:¹¹

- Deterring and preventing manipulation and other disruptions to market integrity: DeFi protocols’ built-in audit trail satisfies—and can exceed—Core Principle 4’s surveillance demands. That feature enables “real-time monitoring” and “comprehensive and accurate trade reconstructions” that the CFTC requires of DCMs and SEFs.¹² Non-discretionary and public execution mechanics also

⁸ “Protocols Ranked by Perp Volume,” *DeFiLlama* (accessed Sept. 24, 2025), available at <https://defillama.com/perps> (indicating sustained monthly growth in activity across leading on-chain venues); see also “State of Crypto Perpetuals 2024,” *CoinGecko* (Mar. 14, 2025), available at <https://www.coingecko.com/research/publications/state-of-crypto-perpetuals-2024> (noting that crypto perpetuals “are widely used due to their flexibility, high liquidity, and leverage options” and detailing the growing volume on decentralized perpetual exchanges).

⁹ See, e.g., *In re Oryn, Inc.*, CFTC Docket No. 23-40, at 3-4 (Sept. 7, 2023) (finding the Oryn protocol to be an unregistered SEF or DCM that, despite its efforts to the contrary, was accessible to U.S. users); *In re Uniswap Labs*, CFTC Docket No. 24-25 (Sept. 4, 2024) (crediting Uniswap’s “substantial cooperation” with the CFTC and its “remediation,” yet still finding violations of Section 4(a) of the CEA).

¹⁰ See Comment Letter, Paradigm Operations LP, at 7 (May 21, 2025), available at <https://cdn.sanity.io/files/dgybcd83/production/618cf5e8beb983708f657993d44c8632741f13e8.pdf> (explaining this argument in detail) (“May Comment Letter”).

¹¹ See 7 U.S.C. § 5(b) (listing the purposes of the CEA).

¹² 17 C.F.R. § 38.250.

reduce the opportunity for conventional market manipulation, and the absence of a centralized exchange reduces the likelihood of preferential treatment and other intermediary interference.

- Ensuring the financial integrity of transactions and avoiding systemic risk: DeFi derivatives can settle by smart contract with segregated, on-chain collateral and continuous margining. This reduces the risk of custodial misuse or delayed settlement, essentially eliminating the need for intermediation by derivatives clearing organizations and futures commission merchants. A limited exemption could help channel traders to DeFi protocols with appropriate risk parameters, specified by the CFTC, rather than offshore platforms that offer unchecked leverage.
- Protecting market participants from fraud and abusive practices, and preventing misuse of customer assets: Because leading DeFi derivatives venues are non-custodial, traders' margin remains in segregated smart contracts, rather than being intermingled with an intermediary's balance sheet. This expressly prevents the misuse of customer funds. Plus, the transparency and immutability of DeFi protocols shrink the surface area for hidden fees, front-running, or undisclosed rehypothecation.
- Promoting responsible innovation and fair competition among markets and participants: A rigid SEF/DCM registration mandate entrenches centralized incumbents and exports innovation offshore. A limited exemption would let responsible DeFi protocols compete on quality and cost, while giving the Commission rich data about these new businesses. The transparency of DeFi protocols would also support price discovery and competition by expanding access to bona fide hedging tools for market participants with exposure to digital assets.

The Commission has already collected data about this market, having requested public comment about perpetual contracts six months ago.¹³ We repeat our recommendation that the Commission launch a tailored exemption for DeFi perpetual contract trading.¹⁴

Also, although perpetual contracts have received much of the Commission's focus, the arguments in favor of DeFi trading extend to the trading of derivatives generally. So we recommend that the Commission's innovation extend beyond perpetual contracts to cover futures and swaps,¹⁵ including binary options.¹⁶

¹³ *CFTC Staff Seek Public Comment Regarding Perpetual Contracts in Derivatives Markets*, Release No. 9069-25 (Apr. 21, 2025), available at <https://www.cftc.gov/PressRoom/PressReleases/9069-25>.

¹⁴ *See generally* May Comment Letter.

¹⁵ *See id.* (recommending that the Commission not make a general classification as to whether perpetual instruments are futures or swaps).

The Commission Should Not Wait for Legislation to Act

Much ink has been spilled about how the Commission’s current regulatory framework presupposes the presence of registered intermediaries, and so does not work for DeFi.¹⁷ We do not disagree. Applying the current SEF and DCM registration requirements and core principles in Parts 37 and 38 of the Commission’s regulations to DeFi is virtually impossible.

But it is also unnecessary to apply those particular regulations to the non-custodial frontier that is DeFi. DeFi protocols can be designed natively to achieve the CEA’s objectives of reducing fraud, protecting customer assets, reducing cost, and supporting competition.¹⁸ This is precisely the reason why the CEA clearly authorizes the Commission to make exemptions, especially when technology outpaces its regulatory framework.¹⁹ Through Section 4(c) of the CEA, Congress gave the Commission the power to adopt exemptions from exchange-trading and other requirements “[i]n order to promote responsible economic or financial innovation and fair competition.”²⁰ It is a power that remains in the Commission’s toolbox. The agency has used it to good effect before, from providing legal-certainty exemptions for swaps²¹ and granting the London Clearing House order permitting the use of the then-novel SwapClear service,²² to exempting from CFTC regulations certain hybrid instruments.²³ When drafting Section 4(c), Congress wanted it to be “a means of providing certainty and stability to existing and emerging markets so that financial innovation and market development can proceed

¹⁶ In the same vein, we also urge the SEC to exercise its exemptive powers under Section 36 of the Securities Exchange Act of 1934 to provide conditional relief and permit DeFi trading of derivatives based on securities. *See generally* 15 U.S.C. § 78mm.

¹⁷ Chris Brummer, *Disclosure, Dapps and DeFi*, STANFORD J. OF BLOCKCHAIN L. & POLICY (June 29, 2022), available at <https://stanford-jblp.pubpub.org/pub/disclosure-dapps-defi/release/1>; *Decentralized Finance (DeFi) and Financial Services Disintermediation: Policy Challenges*, CRS (July 28, 2021), available at https://www.congress.gov/crs_external_products/IN/PDF/IN11709/IN11709.3.pdf; Comment Letter, Paradigm Operations LP at 4 (Aug. 18, 2025), available at <https://cdn.sanity.io/files/dgybcd83/production/b9c423a36d9e922514471ee040a164e9507abb4c.pdf> (discussing this perspective) (“August Comment Letter”).

¹⁸ *See* August Comment Letter (explaining the compatibility of the Commission’s regulatory principles and DeFi).

¹⁹ *See* H.R. Conf. Rep. No. 102-978, at 3215 (1992) (“[T]his provision provides flexibility for the Commission to provide *legal certainty to novel instruments* where the determination as to jurisdiction is not straightforward.”) (emphasis added); *id.* at 3212 (explaining that absent exemptive relief, conventional futures regulation “may create an inappropriate burden on commerce”).

²⁰ 7 U.S.C. § 6(c); *see also id.* § 5(b) (listing one of the purposes of the CEA as “promot[ing] responsible innovation and fair competition”).

²¹ *Exemption for Certain Swap Agreements*, 58 Fed. Reg. 5587, 5589–90 (Jan. 22, 1993).

²² *Order Granting the London Clearing House’s Petition for an Exemption Pursuant to Section 4(c) of the Commodity Exchange Act*, 64 Fed. Reg. 53346, 53346–47 (Oct. 1, 1999).

²³ *Regulation of Hybrid Instruments*, 58 Fed. Reg. 5580, 5583 (Jan. 22, 1993).

in an effective and competitive manner.”²⁴ DeFi derivatives trading is the obvious next candidate.

What is more, fostering responsible DeFi derivatives trading within the U.S. regulatory perimeter is exactly what Congress envisions for the Commission *today*. Congress is working on legislative solutions for the digital asset ecosystem more broadly. In July 2025, the House passed the CLARITY Act of 2025, which would create a comprehensive oversight framework for spot market trading of digital commodities.²⁵ If enacted, the CLARITY Act envisions that the Commission will retain anti-fraud, anti-manipulation, and false-reporting powers over spot transactions on DeFi protocols.²⁶ But it expressly carves out from the CEA a person acting “in relation to [a] decentralized finance trading protocol.”²⁷ The Senate’s working alternative draft law—the Responsible Financial Innovation Act of 2025—would also carve out DeFi trading from the Securities Exchange Act of 1934 and the Securities Act of 1933 in a similar manner, while preserving the SEC’s anti-fraud, anti-manipulation, and false-reporting enforcement authority.²⁸

Importantly, the CLARITY Act does not address derivatives on digital commodities, leaving it to the Commission to handle. It would fly in the face of Congressional intent, however, for the Commission to mandate intermediation for digital commodities derivatives—essentially banning any trading of derivatives over DeFi protocols—when Congress expressly carved out DeFi protocols from spot market registration and trading requirements. The Commission should instead pave the way for a harmonious DeFi regulatory framework by using its existing authority to address DeFi derivatives protocols in a manner consistent with the emerging legislative framework for DeFi spot protocols.²⁹

This action is also directly responsive to the calls to action in the PWG Report. As the PWG urges, the CFTC must help “lay the groundwork for American digital asset markets

²⁴ H.R. Conf. Rep. No. 102-978, at 3213-15 (1992).

²⁵ H.R. 3633, 119th Cong. (July 17, 2025), *available at* <https://www.congress.gov/119/bills/hr3633/BILLS-119hr3633eh.pdf>. The Senate released a working draft of the Responsible Financial Innovation Act of 2025 on July 22, 2025. Press Release, U.S. Senate Comm. on Banking, Hous., & Urban Affs., *Scott, Lummis, Colleagues Release Market Structure Discussion Draft, Issue Request for Information from Stakeholders* (July 22, 2025), <https://www.banking.senate.gov/newsroom/majority/scott-lummis-colleagues-release-market-structure-discussion-draft-issue-request-for-information-from-stakeholders> (“Draft RFIA”).

²⁶ *See* H.R. 3633 § 309(b), at 121; *id.* § 409(b), at 209.

²⁷ *See* H.R. 3633 § 309, at 119-21; *id.* § 409, at 207-09.

²⁸ *See* Draft RFIA § 15H(b)(4)-(5), at 146-49; *id.* § 504(b), at 157-58.

²⁹ For these same reasons, as evidenced by the Draft RFIA, it would contradict clear Congressional intent for the SEC to effectively ban trading of digital assets over DeFi protocols. The SEC should thus similarly exercise its exemptive powers for trading digital assets on DeFi protocols. *See supra* notes 16 & 28.

to become the deepest and most liquid in the world.”³⁰ But the United States cannot become the rich haven for DeFi innovation that the PWG Report imagines without incubation, and the legislative process will take time. That is why the PWG Report tasked the Commission with “provid[ing] appropriate accommodation” to the digital asset ecosystem “as market structure deliberations continue in Congress.”³¹ It is also why the PWG urges the SEC and CFTC to “use their existing authorities to provide fulsome regulatory clarity” alongside the legislative process.³² An appropriate exemption would pull DeFi derivatives trading into the U.S. regulatory perimeter on the CFTC’s own terms. Without this clarity, these rapidly-growing markets will continue to be siphoned offshore. So as the PWG urges, the Commission must provide this exemptive relief “*immediately*,”³³ and, in any event, by the end of the current year.

Supporting Innovation by Promoting Prediction Markets

The PWG Report does not discuss prediction markets at length. But the report emphasizes the importance of supporting innovation in the broader digital asset ecosystem³⁴—of which event contracts are an important part. Many leading platforms run on public blockchains and settle with stablecoins so that as soon as an event occurs, they can settle event contracts automatically and immutably. Prediction markets are also a critical tool for digital asset traders because they can aggregate dispersed information about digital assets that may not otherwise be centralized anywhere else. There is also significant market demand—and innovation in—prediction markets. They should remain a top priority for the Commission as it plans its book of work in response to the PWG’s recommendations.

Codify a Standard for the Public Interest Prohibition

Like the rest of the digital asset ecosystem, prediction markets struggle to flourish amid regulatory uncertainty. The CEA authorizes the Commission to prohibit event contracts that it determines to be contrary to the public interest *and* if they “involve” an enumerated activity, including “gaming.”³⁵ Yet the statute is silent about what “involve” means, and this uncertainty has real costs. Ambiguity deters self-certification—the default for DCM day-to-day business—undermining the market-access model Congress designed.

For this reason, we urge the Commission to revise 17 C.F.R. § 40.11 to codify the ruling of United States District Court Judge Jia Cobb in *KalshiEX LLC v. CFTC*.³⁶ Judge Cobb

³⁰ PWG REPORT at 6, 43.

³¹ *Id.* at 54.

³² *Id.*

³³ *Id.* at 6 (emphasis added).

³⁴ *Id.* at 51-61.

³⁵ 7 U.S.C. § 7a-2(c)(5)(C)(i).

³⁶ Memorandum Opinion, *KalshiEX LLC v. CFTC*, C.A. No. 23-3257, at 26 (JMC) (D.D.C. Sept. 12, 2024) (Cobb, J.).

outlined a clear and actionable standard that an event contract “involves” gaming or another enumerated activity “if the event being offered and traded as part of that contract or transaction *relates* to that activity.”³⁷ Under this rule, a contract that asks buyers to take a yes or no position on a political election does not relate to gaming because elections are not a game, and so those contracts would not be subject to prohibition. This standard reflects the CEA as originally crafted by its drafters.³⁸

In addition, the Commission should revise § 40.11(a) to clarify that the rule does not prohibit an event contract based on one of the enumerated events *unless* the Commission also finds that the listing or trading of the contract would be contrary to the public interest, in accordance with the text of the CEA.³⁹ Also, while the CEA refers only to event contracts that involve enumerated activities, § 40.11 currently refers to event contracts that “involve[], *relate[] to, or reference[]*” the enumerated activities.⁴⁰ The Commission should delete the rule’s references to “relates to, or references” to align with the statutory text exactly and in a manner consistent with the interpretation laid out above.

Draw Clear Jurisdictional Boundaries

The PWG calls for clear jurisdictional boundaries and active interagency coordination to support innovation.⁴¹ We urge the Commission to coordinate with the SEC to bring this clarity to prediction markets. Demand for markets tied to corporate events, such as mergers, capital raises, and earnings, is significant.⁴² But uncertainty over the boundaries between the CEA and federal securities laws stymies the launch of these contracts. The Commission can and should draw that line more clearly.

Event contracts that are not security-based swaps or mixed swaps fall within the Commission’s regulatory remit (although the SEC retains antifraud/manipulation

³⁷ *Id.* (emphasis added).

³⁸ *See generally* Brief for Paradigm Operations LP as Amicus Curiae, pp. 4-18 *KalshiEX LLC v. Flaherty & Platkin*, No. 25-cv-2152 (July 30, 2025) [D.I. 57] (summarizing the legislative history of the CEA).

³⁹ *See* 7 U.S.C. § 7a-2(c)(5)(C)(i).

⁴⁰ *See* 17 C.F.R. § 40.11(a), (c) (emphases added).

⁴¹ *See* PWG EO (demanding “well-defined jurisdictional regulatory boundaries”); PWG REPORT at 55, 144 (urging clear frameworks “to avoid regulatory arbitrage between the SEC and CFTC digital asset regulatory regimes”); *see also id.* at 53, 143 (“The SEC and the CFTC should coordinate to ensure efficient rulemaking processes.”); *see also id.* at 61 (citing the general dangers of “[r]egulatory fragmentation among jurisdictions with different—or even conflicting—regimes”).

⁴² There are clear indicators of retail and institutional demand. For instance, Kalshi’s corporate event contracts routinely attract thousands of dollars, such as the market for which AI model will be the best between Google, xAI, OpenAI, and peer companies, which had more than \$3.5 million in volume as of October 1, 2025. *See* “Best AI at the end of 2025?”, *Kalshi*, available at <https://kalshi.com/markets/kxllm1/yearend-top-llm/kxllm1-25dec31>. Conventional markets also experience heavy trading activity around these events. This evinces a real economic need for financial instruments that price and hedge corporate-event risk.

jurisdiction over swaps qualifying as security-based swap agreements). This follows from Title VII’s allocation of derivatives jurisdiction. Event contracts are broadly defined as agreements that make payments based on, among other things, the occurrence or nonoccurrence of an event.⁴³ Only a subset of event contracts—those that are security-based swaps or mixed swaps—are subject to SEC regulatory oversight.⁴⁴ For that subset, the referential event must meet specific conditions: it must (1) be related to an issuer (or issuers) of securities, *and* (2) “directly affect[] the financial statements, financial condition, or financial obligations of the issuer.”⁴⁵

Given this split jurisdiction, the SEC and the CFTC need to jointly propose a practical test for whether an event contract is a security-based swap. The best solution is a functional substitution test: whether an instrument replicates trading in swaps on an issuer’s debt or equity securities. This test is consistent with the narrow intent of the security-based swap definition: contracts based on an event that “*directly affects* the financial statements, financial condition, or financial obligations of the issuer,”⁴⁶ such as credit default swaps, effectively substitute for swaps on debt or equity securities by referencing events that directly affect those securities. It is also a clear and workable line that will provide clarity to both industry players and the agencies themselves.

For instance, event contracts on mergers or other transactions, initial public offerings or other capital raises, or earnings announcements are not a substitute for buying or selling swaps on the issuer’s securities. Thus, under this test, they should be regulated under the CEA by the CFTC. By contrast, event contracts based on the future price of a security or whether an issuer will fail to pay interest on its debt would mirror trading in swaps on the debt or equity of the issuer and would thus be under the SEC’s remit.

The CFTC and SEC’s roundtable on September 29, 2025 was only one opportunity for the agencies to progress this issue.⁴⁷ We hope to see real, actionable guidance on these jurisdictional boundaries in the near future.

* * *

⁴³ 7 U.S.C. § 1a(47)(A)(ii).

⁴⁴ 15 U.S.C. § 78c(a)(68).

⁴⁵ *Id.*

⁴⁶ *Id.* (emphasis added).

⁴⁷ See *SEC-CFTC Joint Roundtable on Regulatory Harmonization Efforts*, S.E.C. (Sept. 29, 2025), available at <https://www.sec.gov/newsroom/meetings-events/sec-cftc-joint-roundtable-sept-29-2025>; *Joint Statement from the Chairman of the SEC and Acting Chairman of the CFTC*, Chairman Paul S. Atkins & Acting Chairman Caroline D. Pham (Sept. 5, 2025), available at <https://www.cftc.gov/PressRoom/SpeechesTestimony/phamatkinsstatement090525>.

Paradigm appreciates the Commission's consideration of our comments. If you have questions or would like to discuss these comments further, please reach out to jslaughter@paradigm.xyz.

Sincerely,

/s/ Justin Slaughter

Justin Slaughter

VP of Regulatory
Affairs

Paradigm