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March 15, 2018

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

Re: Retail Commodity Transactions Involving Virtual Currency,
          Proposed Interpretation;
          RIN 3038-AE62

Dear Mr. Kirkpatrick:

dYdX Trading, Inc. ("dYdX") welcomes the opportunity to provide comments to the Commodity Futures Trading Commission ("CFTC" or "Commission") on the Commission's Proposed Interpretation[1] of the term "actual delivery" as contained in section 2(c)(2)(D)(ii)(III)(aa) of the Commodity Exchange Act ("CEA") in the context of retail commodity transactions involving virtual currency.[2] We appreciate the thoughtful approach taken by the CFTC concerning the regulation of this new and promising asset class and its underlying technology. We also recognize the challenges in providing interpretive guidance with respect to blockchain-based transactions, and respectfully recommend that the Proposed Interpretation be revised to take into consideration decentralized transactions performed through smart contracts.

In response to the request for comment put forth by the Proposed Interpretation we outline here additional facts and circumstances in relation to *Example 1* for consideration by the Commission. Please note that the analysis and example within this letter is intended to provide an illustrative example of a protocol innovation occurring within the blockchain space which the Commission may have inadvertently overlooked in its initial consideration, specifically the open-

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[1] Retail Commodity Transactions Involving Virtual Currency, 82 FR 60335 (Dec. 20, 2017) (the "Proposed Interpretation")

[2] The CFTC defined "virtual currency" to mean "a digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value, but does not have legal tender status in any jurisdiction." *See In the Matter of Coinflip, Inc., d/b/a Derivabit, and Francisco Riordan,* CFTC Dkt. No. 15-29 at n.2 (Sept. 17, 2015) (the "*Coinflip Order*"), *available at:* http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfcoinfliprorder09172015.pdf.

source dYdX protocol's benefit of increasing liquidity, improving price discovery and permitting protocol level risk mitigation in blockchain based assets.

While there were nine questions posed by the Proposed Interpretation, we wish to clarify that this letter is intended to provide an example of a limited circumstance where persons entering into a form of transaction using the dYdX protocol may 'actually deliver' the underlying asset through the use of smart contract functionality within 28 days, in apparent satisfaction of the Proposed Interpretation. In particular, we recommend that the CFTC specify that virtual currency-based transactions[3] that utilize smart contract technology in the manner described in this letter would result in the actual delivery of the particular virtual currencies involved in these transactions (i.e., for purposes of 2(c)(2)(D)(ii)(III)(aa) of the CEA).

We believe that this form of delivery falls within *Example 1* of the Proposed Interpretation; although, we note that the Commission described *Example* 1 as a non-exclusive example. Accordingly, we believe that this form of delivery should constitute "actual delivery," even if it does not fall within *Example 1*, since all relevant factors related to an actual delivery determination appear to have been satisfied. Specifically, we note that the parties involved in the dYdX Sale Transaction (as hereinafter defined and described): 1) take possession and control of the entire quantity of virtual currency that is the subject of such a transaction; and 2) will not retain any interest in or control over such virtual currency at the expiration of 28 days from the date of the transaction.

For the avoidance of doubt we do not, by either inclusion or omission in the analysis that follows, preclude the possibility of any hypothetical example being potentially subject to different provisions of the retail commodity transaction provisions and/or other provisions of the CEA depending on the circumstances, or persons being independently subject to regulation as registered entities, or otherwise regulated by the Commission. We therefore submit this letter for consideration without prejudice to those possible alternate interpretations, or indeed in our position as developer of the open source dYdX protocol.

(I) OVERVIEW

Section 2(c)(2)(D) of the CEA applies to "Retail commodity transactions," which are defined as "any agreement, contract, or transaction in any commodity that is … entered into, or offered (even if not entered into), on a leveraged or margined basis, or financed by the offeror,

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[3] For purposes of this letter, the term "virtual currency-based transactions" means transactions that involve one or more: i) virtual currencies, as defined by the CFTC in the *Coinflip Order*; or ii) tokens (i.e., computer code) that operate on the blockchain underlying a particular virtual currency and provide each token holder with access to digitized goods, services, or other interests.

the counterparty, or a person acting in concert with the offeror or counterparty," with a person that is not an eligible contract participant or eligible commercial entity."[4] Section 2(C)(2)(D)(ii)(III) of the CEA excepts, in pertinent part, from regulation as a retail commodity transaction any "contract[s] of sale that results in actual delivery within 28 days."[5]

Following similar guidance previously provided in 2013 regarding the meaning of "actual delivery" in the context of Section 2(C)(2)(D)(ii)(III), [6] the CFTC recently issued the Proposed Interpretation of "actual delivery" in the context of retail commodity transactions involving virtual currency. Under the Proposed Interpretation, "actual delivery" of virtual currency requires that: (1) the relevant public distributed ledger network or blockchain records the transfer of the entire quantity of the virtual currency to the purchaser's blockchain wallet; (2) the purchaser be able to freely use the virtual currency, both within and away from any particular platform; (3) neither the counterparty seller nor any platform involved in a transaction retains any interest in or control over the transferred virtual currency; and (4) the counterparty seller transfer title to the purchaser, which may be reflected by linking the purchaser with proof of ownership of the wallet into which the virtual currency is transferred.[7]

The Proposed Interpretation includes two examples illustrating circumstances in which actual delivery will have occurred.[8] In *Example* 1, the CFTC explains that:

> *[a]ctual delivery of virtual currency will have occurred if, within 28 days of entering into an agreement, contract or transaction, there is a record on the relevant public distributed ledger network or blockchain of the transfer of virtual currency, whereby the entre quantity of the purchased virtual currency, including any purchase made using leverage, margin or other financing, is transferred from the counterparty seller's blockchain wallet to the purchaser's block wallet, the counterparty seller retains no interest in or control over the transferred commodity, as the counterparty seller has transferred title of the commodity to the purchaser."[9]*

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[4] 7 U.S.C. § 2(c)(2)(D).

[5] 7 U.S.C. § 2(c)(2)(D)(ii)(III).

[6] Retail Commodity Transactions Under Commodity Exchange Act, 78 FR 52426 (Aug. 23, 2013).

[7] *Id*.

[8] 82 FR at 60340.

[9] *Id*.

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As more fully explained below, dYdX believes that virtual currency-based transactions that utilize smart contract technology result in the actual delivery of the particular virtual currencies involved in these transactions for purposes of 2(c)(2)(D)(ii)(III)(aa) of the CEA. Specifically, dYdX believes that the smart contract creates a record on the blockchain which effects the transfer of the virtual currency (or other blockchain asset) from the seller to the purchaser.

We also note that the phrases 'wallet' and 'blockchain wallet' may not accurately capture the intended aspects of possession and control. In the virtual currency space, 'wallet' usually refers to a software application that manages a user's private keys and public addresses, allowing the user to send and receive transactions. However, the virtual currency itself does not reside in the 'wallet', but at the public addresses. Wallets are merely a way of accessing the private keys needed to control the public addresses. Users can switch wallets without affecting the balances at their public addresses. By analogy, an email is delivered to the recipient's email address, not to Chrome, Safari or whatever browser the recipient uses to access that email address.

Therefore, we suggest 'blockchain address' is a more accurate term than 'blockchain wallet'.

(II) THE DYDX PROTOCOL

dYdX is a protocol designed for decentralized peer-to-peer trading of virtual-currency derivatives and other transactions through smart contracts built on top of the Ethereum network. A smart contract is "a computer protocol that can self-execute, self-enforce, self-verify and self-constrain the performance of" its instructions.[10] It is an event-driven program, which runs on a replicated, shared ledger and which is able to programmatically effectuate virtual-currency transactions on that ledger. Transactions that use the dYdX protocol rely on smart contracts to enter into, and record on the blockchain, one or more trades according to the instructions input and agreed upon by the counterparties. Once parties enter into a transaction involving a dYdX smart contract, neither party owns or controls the dYdX smart contract.

(A)   Sale Transactions Using the dYdX Protocol

The dYdX protocol supports a particular transaction whereby one party (the "Base Token Provider") makes a specified amount of a particular virtual currency or token (the "Base Token") available for sale by another party (the "Base Token Seller"), in exchange for the payment of fees

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[10] Tim Swanson, *Great Chain of Numbers: A Guide to Smart Contracts, Smart Property and Trustless Asset Management* (2014).

by the Base Token Seller to the Base Token Provider on the terms and conditions agreed to by the parties.

This transaction, which we refer to as a "dYdX Sale Transaction,"[11] involves the following steps:

(1)   On a particular date (the "Beginning Date"), the Base Token Provider and Base Token Seller agree to the following key terms: identification of the Base Token and a second token (the "Quote Token"); date by which the Base Token must be returned to the Base Token Provider (the "Termination Date"); amount of Quote Token that Base Token Seller must deposit into the dYdX smart contract (the "Deposit"); and an amount of fees that Base Token Seller will pay to Base Token Provider at the end of the dYdX Sale Transaction;

(2)   The Base Token Provider transfers the Base Token to the dYdX smart contract, and the Base Token Seller transfers a specified amount of Quote Token to the dYdX smart contract, representing the Deposit;

(3)   The Base Token Seller identifies another party that would like to buy the Base Token, and instructs the dYdX smart contract to enter into the trade with that buyer by transferring the Base Token to the buyer, in exchange for an agreed upon amount of Quote Token, which is received from the buyer and retained by the dYdX smart contract;[12]

(4)   On or before the Termination Date, the Base Token Seller identifies another party from which the Base Token can be purchased, and instructs the dYdX smart contract to purchase the Base Token in exchange for an agreed upon amount of Quote Token, which is sent from the dYdX smart contract to the other party in exchange for the agreed upon amount of Base Token;

(5)   No later than the Termination Date, the dYdX smart contract sends the Base Token, plus any interest and fees (represented by a corresponding amount of Quote Token) to

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[11] A dYdX Sale Transaction shares similarities with more traditional "short sales," whereby one party ("X") loans a commodity to another party ("Y") that, in turn, sells the commodity in anticipation of a decline in the price of the commodity. Y has an obligation to return the commodity to X and pay X interest and fees over the period during which Y's short position is open. A traditional short position does not utilize smart contract technology to manage the relationship between X and Y.

[12] Note that the transaction between the dYdX smart contract and the buyer is conducted through a separate protocol—the 0x Protocol, developed by ZeroEx, Inc.—which supports decentralized peer-to-peer spot transactions. dYdX is not affiliated with ZeroEx, Inc.

the Base Token Provider, and transfers any Quote Token remaining in the dYdX smart contract (*i.e.,* the Deposit plus any "profits") to the Base Token Seller.

(B) Actual Delivery of the Base Token

When the dYdX smart contract effectuates the sale and subsequent purchase of the Base Token, records are made on the public ledgers/blockchains of both the Base Token and the Quote Token. The purchaser of the Base Token in step 3 above has complete control over the Base Token that it receives as a result of that sale, and neither the Base Token Seller nor Provider retains any interest in or control over the transferred amount of Base Token. Likewise, the Base Token Provider receives the Base Token in step 5 above and the Base Token Seller does not retain any interest in or control over the Base Token.

In essence—the dYdX Sale Transaction (as represented by the five steps described above) appears to comport with the "actual delivery" requirements, as outlined in the Proposed Interpretation, and the dYdX Sale Transaction would appear to satisfy the requirements of the exemption from regulation as a retail commodity transaction under Section 2(C)(2)(D)(ii)(III), provided that the Termination Date occurs within 28 days of the Start Date.

(C) dYdX Sale Transactions Limit Risk to Base Token Seller

"Retail commodity transactions" were added to the CEA as part of the reforms under Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank"), passed by Congress and signed into law in 2010.[13] As explained by the CFTC, Congress enacted this provision following court decisions, including *CFTC v. Zelener*, involving "transactions that were characterized as spot sales in contract documents, but in which, in practice, customer positions were held open indefinitely and customers never took delivery of foreign currency."[14] Congress found that such "Zelener-type" contracts function like futures contracts, and should be subject to CFTC oversight.

The risk exposure to the Base Token Seller in the dYdX smart contract is limited to the amount of the Deposit, as agreed upon by the Base Token Seller and Provider when they entered into the trade. The dYdX smart contract does not have the ability to liquidate other positions held by the Base Token Seller if the value of the Base Token (as expressed in Quote Token) increases by an amount that exceeds the value of the Deposit. (We refer to the occurrence of such an event as a "Base Token Appreciation Event".) If a Base Token Appreciation Event does occur,

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[13] Public Law 111-203, 124 Stat. 1376 (2010).

[14] 76 FR 77671 (*citing* 373 F.3d 309 (6th Cir. 2008)).

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it falls upon the Base Token Provider to bring about the termination of the dYdX Sale Transaction (*i.e.*, by affirmatively requiring that step 5 above occur), but only after an agreed upon amount of time has passed, and only by providing the Base Token Seller with an amount of time in which it will have the opportunity to deliver additional assets to the dYdX smart contract to support the obligations of the Base Token Seller to the Base Token Provider (the "Additional Deposit Delivery Period"), in each case as agreed upon by the parties in the dYdX smart contract. If the Base Token Seller does not provide those additional assets within Additional Deposit Delivery Period, the dYdX smart contract will deliver to the Base Token Provider the Quote Token received from the initial sale, plus the Deposit.

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In conclusion, we understand the desire of Congress and the CFTC to provide regulatory oversight of retail commodity transactions that involve open-ended positions by retail participants. However, we encourage the CFTC to consider the role that smart contracts play in the evolving blockchain ecosystem, and the impact they may have on shifting and modifying risk in a decentralized, peer-to-peer context, by clarifying that the delivery of virtual currency by a smart contract, in the manner described herein, may qualify for the actual delivery exemption from regulation as a retail commodity transaction.

We appreciate the opportunity to comment on the Commission's Proposed Interpretation. This letter was drafted with the assistance of counsel, any questions relating to these comments in the first instance should be directed to Andrew Cross (across@perkinscoie.com; 202-654-6379) or Laurie Rosini (lrosini@perkinscoie.com; 206-359-3052).

Sincerely,

Antonio Juliano
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