SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-103998; File No. SR-IEX-2025-02]

Self-Regulatory Organizations; Investors Exchange LLC; Order Approving a Proposed Rule Change, as Modified by Amendment No. 3, to Adopt Rules to Govern the Trading of Options on the Exchange for a New Facility Called IEX Options

September 18, 2025

I. Introduction

On January 10, 2025, the Investors Exchange LLC ("IEX" or "Exchange") filed with the Securities and Exchange Commission ("Commission"), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act") and Rule 19b-4 thereunder, a proposed rule change to adopt rules to govern the trading of options on IEX Options LLC ("IEX Options"). The proposed rule change was published for comment in the Federal Register on January 21, 2025. On March 6, 2025, the Commission designated a longer period within which to approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether to disapprove the proposed rule change. On March 12, 2025, the Exchange filed Amendment No. 1 to the proposed rule change, which superseded and replaced the original proposal in its entirety. The proposed rule change, as modified by Amendment No. 1, was published for

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

See Securities Exchange Act Release No. 102190 (Jan. 14, 2025), 90 FR 7205.

See Securities Exchange Act Release No. 102536, 90 FR 11866 (Mar. 12, 2025). The Commission designated Apr. 21, 2025, as the date by which the Commission shall approve or disapprove, or institute proceedings to determine whether to disapprove, the proposed rule change.

See <u>infra</u> note 6 (citing the release that published notice of Amendment No. 1, which includes a description of Amendment No. 1).

comment in the <u>Federal Register</u> on March 19, 2025.⁶ On April 21, 2025, the Commission instituted proceedings to determine whether to approve or disapprove the proposed rule change, as modified by Amendment No. 1.⁷ On June 13, 2025, the Exchange filed Amendment No. 2 to the proposed rule change, which superseded and replaced Amendment No. 1 in its entirety. On June 17, 2025, the Exchange withdrew Amendment No. 2 and filed Amendment No. 3, which replaced and superseded Amendment No. 1 in its entirety. The proposed rule change, as modified by Amendment No. 3, was published for comment in the <u>Federal Register</u> on June 24, 2025.⁸ On July 17, 2025, the Commission designated a longer period within which to approve or disapprove the proposed rule change.⁹ The Commission has received comments on the proposal.¹⁰ This order approves the proposed rule change, as modified by Amendment No. 3.

II. <u>Description of the Proposed Rule Change, as Modified by Amendment No. 3¹¹</u>

The Exchange's proposal sets forth rules in connection with its launch of IEX Options, which will be "a fully automated trading system built on the core functionality of the Exchange's approved equities platform" for the listing and trading of options issued by the Options Clearing

See Securities Exchange Act Release No. 102663 (Mar. 13, 2025), 90 FR 12890 ("Amendment No. 1").

⁷ See Securities Exchange Act Release No. 102895, 90 FR 17474 (Apr. 25, 2025).

See Securities Exchange Act Release No. 103290 (June 18, 2025), 90 FR 26865 ("Amendment No. 3"). Amendment No. 3 is identical to withdrawn Amendment No. 2 except Amendment 3 corrects the nonsubstantive pagination issue in Amendment No. 2. Amendment No. 3, among other things, codified in proposed Rule 23.150(h), Supplementary Material .04 (1)(q), the initial Delta Bound Band of 0-1 and in proposed Rule 23.150(h), Supplementary Material .04 (2)(e), the initial Quote Instability Threshold of 0.1%; stated that if IEX seeks to change either of these values within the ranges stated in the proposed rules, it will file with the Commission a proposed rule change; and provided analysis demonstrating that the proposed Options Risk Parameter will only have a de minimis impact on market maker quotes on IEX.

See Securities Exchange Act Release No. 103480, 90 FR 34532 (July 22, 2025). The Commission designated Sept. 18, 2025, as the date by which the Commission shall approve or disapprove the proposed rule change.

Comments on the proposed rule change are available at https://www.sec.gov/comments/sr-iex-2025-02/sriex202502.htm.

Capitalized terms not defined in this order are defined in Amendment No. 3, supra note 8.

Corporation. ¹² As discussed in the proposal, as modified by Amendment No. 3, the Exchange proposes to operate IEX Options as a pro-rata options market with a latency mechanism. ¹³ Specifically, IEX proposes "to utilize a de minimis delay on incoming order and quote messages designed to enable IEX to obtain the most accurate view of the market prior to processing orders and quotes" ("access delay") to support an optional Options Risk Parameter ("ORP") that is "designed to protect [registered market makers on IEX] from excessive risk due to execution of quotes at stale prices…" ¹⁴

The Exchange's rules applicable to the IEX equities market, contained in Chapters 1 through 16 of its rulebook, will apply to Options Members unless a proposed rule in proposed Chapters 17 through 29, applicable to the IEX Options market, applies or the context otherwise requires. With the exception of the access delay and ORP, the proposed rules for IEX Options are all substantially similar or substantively identical to the rules of other options exchanges. Definitions

The Exchange proposes to define relevant terms in proposed Rule 17.100, which terms are either identical or substantially similar to definitions included in MEMX Options Rule 16.1

Amendment No. 3, supra note 8, at 26866.

See id. See also infra notes 46-48 and accompanying text (discussing pro-rata priority).

Amendment No. 3, supra note 8, at 26866.

¹⁵ <u>See, e.g.</u>, Exchange Rules 2.160 and 2.220.

Specifically, the proposed rules for IEX Options are substantially similar or substantively identical to rules of MEMX LLC ("MEMX Options"), Cboe Exchange, Inc. ("Cboe"), Miami International Securities Exchange, LLC ("MIAX"), NYSE American LLC ("NYSE Amex") and NYSE Arca, Inc. ("NYSE Arca") options exchanges, with material differences discussed in Amendment No. 3. In the proposal, as modified by Amendment No. 3, when the Exchange describes a proposed rule as being "substantively identical" to a rule of another exchange, the Exchange states that it means that the substance of the proposed IEX Options rule is identical to the referenced rule of the other exchange, with differences only to reflect terminology and numbering. See Amendment No. 3, supra note 8, at 26866, n.21. When it describes a proposed rule as "substantially similar" to a rule of another exchange, the proposal describes the relevant differences. See id.

or rules of Cboe, MIAX, or NYSE Amex.¹⁷

Chapters 18 Through 21

In Chapter 18, the Exchange proposes to set forth rules governing participation on IEX Options. 18

Specifically, the Exchange will authorize any Exchange Member that meets certain qualifications and their Sponsored Participants to obtain access to and transact business on IEX Options. ¹⁹ To accomplish this, the Exchange is adding new categories of trading permits for a new type of member called "Options Member" that can participate as an Options Order Entry Firm, Options Market Maker, or Clearing Member. ²⁰ An Options Member that represents Customer Orders as agent on IEX Options or that conducts proprietary trading as a non-Options Market Maker will be referred to as an Options Order Entry Firm ("OEF"). ²¹ Options Market Makers are Options Members registered, pursuant to Rule 23.100, as either a "Registered Market Maker" or a "Specialist." ²²

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In Amendment No. 3, IEX sets forth all defined terms and notes the rule(s) from MEMX Option, Cboe, MIAX, and/or NYSE Amex from which the proposed definition is derived. See id. at 26869-72.

¹⁸ See id. at 26867.

See proposed Rules 18.100, 18.110, 18.120, 18.130, and 18.140. In Amendment No. 3, IEX describes these proposed rules. See Amendment No. 3, supra note 8, at 26867.

See proposed Rule 17.100 (defining "Options Member"). See also proposed Rule 18.140 and proposed Rule 17.100 (defining "Trading Permit"). Clearing Members will be those Options Members that have been admitted to membership in the Options Clearing Corporation pursuant to the provisions of the Rules of the Options Clearing Corporation and are self-clearing or that clear IEX Options Transactions for other Options Members. See proposed Rule 17.100 (defining "Clearing Member").

See proposed Rule 17.100 (defining "Customer" as a Public Customer or a broker-dealer; defining "Public Customer" as a person that is not a broker or dealer in securities; defining "Customer Order" as an agency order for the account of a Customer; and defining "Options Order Entry Firm, Order Entry Firm, and OEF" to mean those Options Members representing as agent Customer Orders on IEX Options and those non-Market Maker Members conducting proprietary trading).

See proposed Rule 17.100 (defining "Market Makers (and Options Market Makers)"). The term "Registered Market Maker" means an Options Member registered with the Exchange for the purpose of making markets in securities traded on the Exchange, who is vested with the rights and responsibilities specified in Chapter 23 of these Rules with respect to Registered Market Makers. The term "Specialist" means a Market Maker appointed by the Exchange to act as the primary lead Market Maker for the purpose

Only Options Members and their Sponsored Participants²³ may transact business on IEX Options via IEX Options' trading system (the "System").²⁴ Options Members may trade options for their own proprietary accounts or, if authorized to do so under applicable law, and consistent with these Rules and with applicable law and SEC rules and regulations, may conduct business on behalf of Customers.²⁵

The Exchange will authorize any Exchange Member that meets certain enumerated qualification requirements and any Options Member's Sponsored Participants to obtain access to, and transact business on, IEX Options. ²⁶ Among other things, OEFs and other Options Members that transact business with Public Customers must be members of the Financial Industry Regulatory Authority ("FINRA"). ²⁷ An Options Member also must maintain membership in another registered options exchange that is not registered solely under Section 6(g) of the Act (15 U.S.C. 78f(g)) or in FINRA. ²⁸ Every Options Member also will be required to have at least one registered Options Principal with responsibility for the overall oversight of the Options Member's options-related activities on the Exchange. ²⁹ Proposed Rules 18.100, 18.110, 18.120, 18.130 are substantially similar to the analogous rules on MEMX Options, and proposed Rule

of making markets in securities traded on the Exchange. The Specialist is vested with the rights and responsibilities specified in Chapter 23 of these Rules with respect to Specialists.

See Amendment No. 3, supra note 8, at 26869. See also IEX Rule 11.130.

See proposed Rule 18.100(a).

²⁵ Id

See Amendment No. 3, supra note 8, at 26867. See also proposed Rules 18.100, 18.110, 18.120, and 18.130.

See proposed Rule 18.110(g).

See proposed Rule 18.110(g).

See proposed Rule 18.110(h).

18.140 is similar to the analogous rule on Cboe.³⁰

In addition, the Exchange proposes to adopt rules in Chapter 19 regarding business conduct that are substantively identical to MEMX Options rules.³¹

In Chapter 20, the Exchange proposes to adopt rules regarding listing standards for options traded on IEX Options that are substantively identical to MEMX Options rules³² and in Chapter 21, to adopt rules that are substantially similar to MEMX Options rules regarding regulation of trading, including rules addressing halts, unusual market conditions, extraordinary market volatility, obvious errors, audit trail, and rules regarding prohibited and permissible transfers of options positions off the Exchange.³³

Chapter 22 - Trading Systems

The Exchange proposes to adopt rules in Chapter 22 regarding the System.³⁴ IEX Options will not have a physical trading floor.

See Amendment No. 3, supra note 8, at 26867. According to the Exchange, a broker-dealer applying to be a Trading Permit Holder on Cboe must qualify as a participant or member of that exchange. IEX explains that its proposed rule differs from Cboe Rule 3.1 because the proposed rule does not include the membership qualification-related provisions that are addressed elsewhere in proposed Chapter 18. In addition, Cboe's rule includes limitations on the number of trading permits that Cboe may issue, while IEX has not proposed to adopt such limitations. Id. at 26867, n.34.

<u>See</u> proposed Rules 19.100, 19.110, 19.120, 19.130, 19.140, 19.150, 19.160, 19.170, 19.180, 19.190, 19.200, 19.210, 19.220, and 19.230. See also Amendment No. 3, supra note 8, at 26881-82.

See proposed Rules 20.100, 20.110, 20.120, 20.130, 20.140, 20.150, and 20.160. See also Amendment No. 3, supra note 8, at 26881. Proposed Rule 20.130, Supplementary Material .01, and proposed Rule 20.140, Supplementary Material .02, are based on MIAX rules.

See proposed Rules 21.100, 21.110, 21.120, 21.130, 21.140, 21.150, 21.160, 21.170, 21.180, 21.190, 21.200, 21.210, and 21.220. See also Amendment No. 3, supra note 8, at 26883.

See proposed Rules 22.100, 22.110, 22.120, 22.130, 22.140, 22.150, 22.160, 22.170, 22.180, 22.190, 22.200, 22.210, 22.220, 22.230, 22.240, 22.250, 22.260, and 22.270. The proposed rule change, as modified by Amendment No. 3, replaces the proposed definition of "Trading System" with the proposed definition of "System" which is "the automated trading system used by IEX Options for the trading of options contracts, as described in Rule 22.100(a)." See proposed Rule 17.100 (defining "System"). The proposed definition of "Trading System" and the proposed definition of "System" are identical. Additionally, references throughout the proposed rule change to "Trading System" were changed to "System" by Amendment No. 3. In addition, in Amendment No. 3, IEX explains the operation of Chapter 22 and notes the rule(s) from MEMX Options, NYSE Amex, NYSE Arca, Cboe, and MIAX from which the proposed rules in Chapter 22 are derived. See Amendment No. 3, supra note 8, at 26872-78.

IEX Options will be open on normal business days and will accept orders and quotes beginning at 8:00 am Eastern time until 4:00 pm except for options contracts on Fund Shares and options contracts on exchange-traded notes including Index-Linked Securities, which may close as of 4:15 pm. ³⁵ IEX Options will accept quotes, Market orders, and Limit orders with a Time-in-Force ("TIF") of Day for inclusion in the opening process. ³⁶ The Exchange will conduct its opening auction for each series after the primary market for the underlying security first disseminates both a two-sided quote and a trade of any size at or within the quote (or, after a Regulatory Halt, notification that the underlying stock is no longer halted), after which it will transition to continuous trading. ³⁷

The Exchange's minimum quotation and trading increment will be the same as on other exchanges³⁸ and the minimum trading increment will be one cent for all series.³⁹ In addition, the Exchange's Penny Interval Program is substantially similar to the penny programs of other exchanges, which includes minimum quoting requirements for options classes listed under the

See proposed Rule 22.110(a).

^{36 &}lt;u>See proposed Rule 22.160(a)(13).</u>

See proposed Rule 22.160. The participation entitlements to a Directed Market Maker or Specialist specified in proposed Rule 22.170(f)(2)-(3) will not be available during an Auction. See proposed Rule 22.160(b)(3). The proposed market opening procedures are substantially similar to the market opening procedures specified in NYSE Arca Options Rule 6.64P-O, except that any imbalance would be allocated on a pro rata basis (see proposed Rule 22.160(b)); IEX will begin accepting orders for the opening auction at 8:00 am compared to 6:00 am for NYSE Arca (see proposed Rule 22.160(a)(13)(A) and NYSE Arca Options Rule 6.64P-O(a)(12)(A)); IEX will begin disseminating Auction Imbalance Information at 8:30 am compared to 8:00 am for NYSE Arca (see proposed Rule 22.160(c)(1) and NYSE Arca Options Rule 6.64P-O(c)(1)); and IEX does not have a Far Clearing Price because it does not propose to have Auction Only orders to which the Far Clearing Price relates.

See proposed Rule 22.140. See also, e.g., MEMX Options Rules 21.5(a) and (b). Specifically, the Exchange will have the following standard quotation increments: if the options series is trading at less than \$3.00, five (5) cents; if the options series is trading at \$3.00 or higher, ten (10) cents; and if the options series is trading pursuant to the Penny Interval Program one (1) cent if the options series is trading at less than \$3.00, five (5) cents if the options series is trading at \$3.00 or higher, except for QQQ, SPY, or IWM where the minimum quoting increment will be one (1) cent for all series.

See proposed Rule 22.140(b).

Penny Interval Program. 40

IEX Options will offer standard order types and handling instructions including Book Only, Post Only, and Intermarket Sweep Orders. 41 In addition, for certain processes, IEX Options may allow a User⁴² to optionally mark an order as "attributable" to that User's MPID, resulting in the order displaying the User's MPID for purposes of trading on the Exchange. 43

IEX Options will allow Users to specify TIF designations on their orders and quotes of Immediate or Cancel ("IOC") or Day. 44 Like other options exchanges, IEX Options will offer a re-pricing Price Adjust mechanism to comply with applicable order protection and trade through restrictions that will offer a single price adjustment. 45 As with its equities market, the Exchange will allow Users to use certain Anti-Internalization Qualifier ("AIQ") modifiers to prevent execution of orders originating from the same identifier including: AIQ Cancel Newest, AIQ Cancel Oldest, AIO Cancel Both, and AIO Cancel Smallest. 46

⁴⁰ See proposed Rule 22.140(c) and Amendment No. 3, supra note 8, at 26873.

⁴¹ See proposed Rule 22.100(e). See also Amendment No. 3, supra note 8, at 26873.

⁴² The proposed rule change, as modified by Amendment No. 3, defines a "User" as "any Options Member or Sponsored Participant who is authorized to obtain access to the System pursuant to Rule 11.130 (Access)." See proposed Rule 17.100 (defining "User").

⁴³ See Amendment No. 3, supra note 8, at 26873; proposed Rule 22.100(d)(3). Attributable orders may not be available for all Exchange processes. The Exchange will distribute a circular to Options Members specifying the processes for which the attributable order type will be available. An MPID is a unique market participant identifier assigned to an Options Member. See proposed Rule 17.100 (defining "MPID").

See proposed Rule 22.100(g). Unless cancelled earlier, once these time periods expire, the order (or the unexecuted portion thereof) is returned to the entering party. The Exchange states that its proposed TIF designations are substantially similar to what MEMX offers, except MEMX allows bulk messages to have a TIF of IOC while IEX will only allow bulk messages to have a TIF of Day so that they do not take liquidity when entered. See Amendment No. 3, supra note 8, at 26873-74 and proposed Rule 22.100(1)(3) (stating that "bulk messages are implicitly designated as Post Only").

⁴⁵ See proposed Rule 22.100(i); MEMX Rule 21.1(i); and Cboe Rule 5.32(b)(2)(A) (single price adjust).

See proposed Rule 22.100(h) and MEMX Rule 21.1(h) (Match Trade Prevention). The first three AIO modifiers are substantially similar to the modifiers available on MEMX Options, except IEX will not allow AIQ modifiers on bulk messages because they cannot remove liquidity. See proposed Rule 22.100(1)(3). MEMX does not offer an AIQ Cancel Smallest modifier, but it is offered by other exchanges such as Cboe. See Cboe Rule 5.6 (Match Trade Prevention Modifier – MTP Cancel Smallest).

IEX Options will have a pro-rata allocation model with execution priority dependent on the size and capacity of an order. ⁴⁷ Resting quotes and orders will be prioritized according to price, after which contracts will be allocated proportionally according to size (in a pro-rata fashion), rounded down to the nearest whole contract. ⁴⁸ Residual options contracts will be filled one at a time based on price-size-time priority. ⁴⁹

IEX Options will support priority overlays, which the Exchange may make available on a class-by-class basis. ⁵⁰ The Priority Customer overlay will provide resting interest from Priority Customers with priority over all non-Priority Customer interest at the same price and will always take priority over all other priority overlays. ⁵¹ The Specialist Participation Entitlement overlay will provide a Specialist with priority over interest from other non-Priority Customers for a certain percentage of contracts allocated at the same price (entitling Specialists to a 60% allocation if there is one other non-Priority Customer at the National Best Bid or National Best Offer ("NBBO") or 40% if there are two or more other non-Priority Customers at the NBBO⁵²) when quoting at the NBBO, inclusive of the case in which the order is directed to Specialists. ⁵³ The Directed Market Maker Participation Entitlement overlay⁵⁴ will provide a Directed Market

47 See Amendment No. 3, supra note 8, at 26872. The proposed pro-rata model is similar to the MIAX and NYSE Amex options exchanges. See id.

^{48 &}lt;u>See id.</u> at 26875.

See id.

See proposed Rule 22.170(f); Amendment No. 3, supra note 8, at 26876.

^{51 &}lt;u>See</u> proposed Rule 22.170(f)(1).

These allocation entitlements are based on MIAX Rule 514(h)(1), after accounting for the additional priorities afforded to market makers on MIAX, as set forth in MIAX Rule 514(e). See Amendment No. 3, supra note 8, at 26876, n.113.

^{53 &}lt;u>See</u> proposed Rule 22.170(f)(2). This overlay may only be in effect if the Priority Customer overlay is also in effect. <u>See</u> proposed Rule 22.170(f).

^{54 &}lt;u>See</u> proposed Rule 22.170(f)(2). This overlay may only be in effect if the Priority Customer overlay is also in effect. <u>See</u> proposed Rule 22.170(f).

Maker with priority over interest from other non-Priority Customers for a certain percentage of contracts allocated at the same price (entitling the Directed Market Maker to a 60% allocation if there is one other non-Priority Customer at the NBBO or 40% if there are two or more other non-Priority Customers at the NBBO⁵⁵) when quoting at the NBBO, and always applies in place of the Specialist Participation Entitlement overlay when both are in effect and the order is directed to a Directed Market Maker other than the Specialist. ⁵⁶ The Small-Size Order Entitlement overlay⁵⁷ will provide a Specialist quoting at the NBBO with priority to execute against the entire size of an order or quote of five or fewer contracts that does not first execute against any Priority Customer orders at that price. However, if an order that is subject to the Small-Size Order Entitlement is directed to a Directed Market Maker who is not the Specialist quoting at the NBBO, and the Directed Market Maker priority overlay is enabled in the series, then the Directed Market Maker Participation Entitlement priority overlay will apply instead of the Small-Size Order Entitlement priority overlay. 58 In the case that an order subject to the Small-Size Order Entitlement is directed to the Specialist, the Small-Size Order Entitlement priority overlay will apply while the Specialist Participation Entitlement and Directed Market Maker Entitlement overlays will not.⁵⁹

See supra note 52.

Prioritizing the Directed Market Maker entitlement over the Specialist entitlement in these circumstances is the same functionality offered by several other exchanges. <u>See, e.g.</u>, NYSE Amex Options Rule 964NYP(h)(1).

⁵⁷ See proposed Rule 22.170(f)(3).

⁵⁸ See proposed Rule 22.170(f)(3)(A). Proposed Rule 22.170(f) is substantially similar to Cboe Rule 5.32(a)(2), except that, unlike Cboe, in the event that a small-size order is directed to a Specialist, it will apply the Small-Size Order Entitlement to the order and not the Directed Order guarantee, meaning the Specialist will have priority to execute against the entire size of the order that does not execute against any Priority Customer orders at that price. See Amendment No. 3, supra note 8, at 26876, n.110.

See proposed Rule 22.170(f)(3)(B). This is functionally identical to how NYSE Amex Options allocates small-size Directed Orders that are directed to a Specialist. See Amendment No. 3, supra note 8, at 26876; NYSE Amex Options Rule 965NYP(h)(2)(B).

IEX Options will offer an optional Step Up Mechanism ("SUM") in designated classes that is substantively identical to functionality offered by Cboe, except that IEX will not offer all or none orders. ⁶⁰ If elected, SUM will expose a routable order and initiate an auction when the order is not immediately eligible for execution on IEX because IEX is not at the NBBO. ⁶¹ Any remaining portion of the order will be routed to other exchanges. ⁶²

To facilitate compliance with applicable regulations, including the Options Order Protection and Locked/Crossed Market Plan, IEX Options will offer an optional service to route orders to away exchanges when the Exchange is not at the NBBO via IEX Services LLC ("IEX Services"), which is subject to regulation as a facility of the Exchange. IEX Services will transmit such orders to other options exchanges via one or more routing brokers that are not affiliated with the Exchange ("Routing Services"). 63 Users that do not wish to use Routing Services can designate their orders as not available for routing. 64 Orders that have been routed by the System to other options exchanges are not ranked and maintained in the IEX Options Book. If a routed order is subsequently returned, in whole or in part, that order, or its remainder, will receive a new time stamp reflecting the time of its return to the System. 65

The Exchange will offer three proprietary data feeds: (1) IEX Options DEEP (depth of book quotations and execution information based on options orders entered into the System); (2) IEX Options TOPS (top of book quotations and execution information based on options orders

See proposed Rule 22.270 and Amendment No. 3, supra note 8, at 26876.

See proposed Rule 22.270.

⁶² See id.

See proposed Rule 22.180(d) and Amendment No. 3, supra note 8, at 26875.

See proposed Rule 22.180(d).

See proposed Rule 22.180(b). See also proposed Rule 22.180(e) (concerning IEX Services' policies and procedures to mitigate the financial and regulatory risks associated with Routing Services) and MEMX Rule 21.9(f) (concerning market access for MEMX Execution Services).

entered into the System); and (3) DROP (regarding the options trading activity of a User). ⁶⁶

The proposed rules in Chapter 22 are substantially similar or substantively identical to rules from MEMX Options, NYSE Amex, NYSE Area, Cboe, and MIAX.

Chapter 23 - Market Participants

Chapter 23 will govern registration and obligations of market participants.⁶⁷

An Options Member will be able to apply to register with the Exchange as an Options Market Maker (or "Market Maker") for the purpose of making transactions as a dealer-specialist in one or more classes of options.⁶⁸ A Market Maker can participate as a Registered Market Maker or seek an appointment as a Specialist in a particular class by qualifying through the Exchange's Specialist Qualification Process.⁶⁹ While the Exchange may appoint multiple Registered Market Makers to a particular class of options contracts,⁷⁰ only one Specialist will be appointed to an options class.⁷¹

Each Options Market Maker must employ Registered Options Traders ("ROTs") to submit Options Market Maker quotations and orders to the System solely for the account of the Market Maker with which it is associated. ROTs may be individual Options Members registered

See proposed Rule 22.240(b).

See proposed Rules 23.100, 23.110, 23.120, 23.130, 23.140, 23.150, 23.160, 23.170, 23.180, 23.190, and 23.200. See generally Amendment No. 3, supra note 8, at 26868-69.

See proposed Rule 23.100(a) and proposed Rule 17.100 (defining "Market Makers (and Options Market Makers)" as referring collectively to Options Members registered as either a Registered Market Maker or as a Specialist).

⁶⁹ See proposed Rule 23.130(b)(1). See also proposed Rule 17.100 (defining "Registered Market Maker"; defining "Specialist"), and proposed Rule 23.130(b)(1) (governing Specialists).

The Exchange will not place any limit on the number of entities that may become Options Market Makers, the number of appointments an Options Market Maker may have, or the number of Options Market Makers that may have appointments in a class unless the Exchange determines to impose any such limit based on system constraints, capacity restrictions, or other factors relevant to protecting the integrity of the System. The Exchange will not impose any such limitations until it has submitted objective standards for imposing the limits to the Commission for its review and approval. See Amendment No. 3, supra note 8, at 26868.

⁷¹ See proposed Rule 23.130(g)(1)(A).

with the Exchange as Market Makers, or officers, partners, employees, or associated persons of Options Members that are registered with the Exchange as Market Makers.⁷²

Quotations may only be entered by a Market Maker and only in its appointed classes.⁷³ Market Makers can submit "bulk messages" in their appointed classes, which are a single electronic message to enter, modify, or cancel up to a specified number of bids and offers. The System handles a bulk message in the same manner as it handles an order or quote, unless the Exchange Rules specify otherwise. Bulk messages will have a default TIF of Day and a default designation of Post Only. As proposed, the System will cancel, reject, or reprice a Post Only bulk message bid (offer) with a price that locks or crosses the Exchange best offer (bid) or away best offer (away best bid).⁷⁴

Both Registered Market Makers and Specialists will be vested with certain rights and responsibilities and will be required to electronically engage in a course of dealing reasonably calculated to contribute to the maintenance of fair and orderly markets.⁷⁵ Specialists will be subject to obligations in addition to those applicable to Registered Market Makers.⁷⁶

Among other things, a Registered Market Maker must provide continuous two-sided

⁷² See proposed Rule 23.110(a) and (b).

Narket Makers are appointed, which shall constitute quotes. See proposed Rule 17.100 (defining "Quote" to include orders entered by a Market Maker in the option series to which such Market Maker is registered). Market Makers with an OEF trading permit may submit orders in classes to which they are not appointed provided that the total number of such orders executed by a Market Maker does not exceed 25% of all contracts the Market Maker executes on the Exchange in any calendar quarter. See proposed Rule 23.150(g).

See proposed Rule 22.100. See also, e.g., MEMX Rule 21.1(1). IEX states that the ability of the System to cancel or reject a post only order submitted on a bulk port with a price that locks or crosses the Exchange best offer (bid) or away best offer (away best bid) is substantively identical to MEMX Rule 21.1(1)(3). IEX will also allow the System to reprice a post only order submitted on a bulk port with a price that locks or crosses the Exchange best offer (bid) or away best offer (away best bid), which is substantively identical to the functionality in Cboe Rule 5.32(b)(1)(B). See Amendment No. 3, supra note 8, at 26874, n.93.

See proposed Rule 23.140(a).

See Amendment No. 3, supra note 8, at 26868-69. See also proposed Rule 23.150(c).

quotations throughout the trading day in its appointed issues for 60% of the time the Exchange is open for trading in each issue,⁷⁷ while a Specialist must provide continuous two-sided quotations throughout the trading day in its appointed issues for 90% of the time the Exchange is open for trading in each issue,⁷⁸ provided in both instances that the options classes have a time to expiration of less than nine months.⁷⁹ In addition, Market Maker quotes must be firm quotes that comply with enumerated price and size rules⁸⁰ and Market Makers must maintain minimum net capital in accordance with applicable rules.⁸¹

Both Specialists and Registered Market Makers may also participate as Directed Market Makers that can receive Directed Orders ⁸² entered into the System on behalf of Priority Customers. ⁸³ Directed Market Makers will be subject to enhanced quoting obligations compared

⁷⁷ See proposed Rule 23.150(e)(2)(A).

⁷⁸ See proposed Rule 23.150(e)(1)(A).

See proposed Rule 23.150, Supplementary Material .01; Amendment No. 3, supra note 8, at 26868. In their appointed issues, a Registered Market Maker and a Specialist must also: engage, to a reasonable degree under the existing circumstances, in dealings for his own account when there exists, or it is reasonably anticipated that there will exist, a lack of price continuity, a temporary disparity between the supply of and demand for a particular options contract, or a temporary distortion of the price relationships between options contracts of the same class; compete with other Market Makers to improve the market in all series of options classes to which the Market Maker is appointed; make markets that, absent changed market conditions, will be honored for the number of contracts entered into the System in all series of options classes to which the Market Maker is appointed; update market quotations in response to changed market conditions in all series of options classes to which the Market Maker is appointed; and price options contracts fairly by, among other things, bidding and offering so as to create differences of no more than \$5 between the bid and offer ("bid/ask differentials") following the opening rotation in an equity options contract (with certain exceptions). See proposed Rule 23.140(b).

^{80 &}lt;u>See proposed Rule 23.150(b) and (d).</u>

See proposed Rule 23.180 (\$200,000 net capital requirement for Registered Market Makers), which is substantively identical to MEMX Rule 22.9, and proposed Rule 23.130(c)(1)(H) (\$1,000,000 net capital requirement for Specialists), which is substantively identical to NYSE Amex Options Rule 927NY(c)(10).

A Directed Order is an order entered on behalf of a Priority Customer that is entered into the System by an Options Member with a designation for a Market Maker in that class (the Directed Market Maker). See proposed Rule 17.100 (defining "Directed Order"). A Priority Customer is any person or entity that is neither a broker or dealer in securities nor a Professional. See proposed Rule 17.100 (defining "Priority Customer and Priority Customer Order"). A Professional is any person or entity that (A) is not a broker or dealer in securities; and (B) places more than 390 orders in listed options per day on average during a calendar month for its own beneficial account(s). See proposed Rule 17.100 (defining "Professional").

^{83 &}lt;u>See</u> proposed Rule 17.100 (defining "Directed Order").

to Registered Market Makers.84

In exchange for accepting these obligations, Registered Market Makers, Specialists, and Directed Market Makers are provided certain benefits such as credit from lenders without regard to the restrictions in Regulation T of the Board of Governors of the Federal Reserve System if the credit is to be used to finance the broker-dealer's activities as a specialist or market maker on a national securities exchange. Another benefit is that Specialists and Directed Market Makers will be granted participation entitlements. As discussed above, Specialists will receive the Specialist Participation Entitlement overlay and the Small-Size Order Entitlement priority overlay, and Directed Market Makers will receive the Directed Market Maker Participation Entitlement overlay, subject to certain conditions.

The Exchange will periodically evaluate Options Market Makers to determine whether each has fulfilled the Exchange's performance standards for Registered Market Makers or Specialists, as applicable.⁸⁹ Substantial or continued failure by a Registered Market Maker to meet any of its obligations and duties may subject the Registered Market Maker to disciplinary action, suspension, or revocation of its registration as such or its appointment in one or more of

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See Amendment No. 3, supra note 8, at 26867, n.32. While a Registered Market Maker must provide continuous two-sided quotations throughout the trading day in its appointed issues for 60% of the time the Exchange is open for trading in each issue, a Directed Market Maker must provide continuous two-sided quotations throughout the trading day in issues for which it receives Directed Orders for 90% of the time the Exchange is open for trading in each issue. This is different from the Specialist quoting obligation as a Specialist must provide continuous two-sided quotations throughout the trading day in its appointed issues for 90% of the time the Exchange is open for trading in each issue. See proposed Rule 23.150(e)(1), (2) and (3).

⁸⁵ See Amendment No. 3, supra note 8, at 26869.

See supra notes 52-53 and accompanying text.

See supra notes 57-59 and accompanying text.

⁸⁸ See supra notes 54-56 and accompanying text.

See proposed Rule 23.120(f); proposed Rule 23.130(f).

its appointed options classes. ⁹⁰ For Specialists, a finding by the Exchange that a Specialist has failed to meet minimum performance standards may result in one or more of the following actions: a moratorium on the allocation of new options issues, a reallocation of existing options, and other disciplinary actions as deemed appropriate under the rules of the Exchange. ⁹¹ *Options Risk Parameter*

The Exchange will offer the ORP as an additional optional risk tool in addition to the standard risk tools it will make available to Options Market Makers. ⁹² According to IEX, "[t]he ORP is designed to enable Market Makers to provide tighter and deeper quotes on IEX by providing protection from execution against quotes at stale prices by identifying when the best Protected Bid or best Protected Offer of the Away Markets (as defined in proposed Rule 22.160(a)(8)) in a particular options series is sufficiently dislocated from the price of the underlying security to indicate that the best Protected Bid or best Protected Offer of the Away Markets in the options series is likely in transition." ⁹³ The Exchange will offer the ORP on a class-by-class basis and may not offer the ORP in all classes.

To support the ORP, IEX Options will employ a hardware-based latency mechanism that adds 350 microseconds of additional latency to each incoming order and quote message from any User, like it does for its equities platform. 94 This latency mechanism provides the Exchange with

See proposed Rule 23.120(f) and Amendment No. 3, <u>supra</u> note 8, at 26869. <u>See also IEX Rule Series 9.500 (concerning procedures for persons aggrieved by adverse action).</u>

^{91 &}lt;u>See</u> proposed Rule 23.130(f). <u>See also</u> proposed Rule 23.130(b)(2), (f)(3)(A), and (g)(2)(B); IEX Rule Series 9.500.

^{92 &}lt;u>See Amendment No. 3, supra</u> note 8, at 26878-81.

⁹³ Id. at 26879.

^{94 &}lt;u>See id.</u> at 26872. <u>See also proposed Rule 22.100(n)</u>. As it does for equities, the Exchange will use coiled optical fiber for the access delay latency mechanism. <u>See Rule 11.510(a)</u>. <u>See also Amendment No. 3, supra note 8, at 26872, n.78; and IEX Rule 11.510 Supplementary Material .02 (concerning force majeure events and acts of third parties).</u>

a very short amount of time to "obtain the most accurate view of the market prior to processing orders and quotes" as it takes in current market data, performs the calculations that inform the ORP, and then cancels or adjusts quotes that have elected to use the ORP. 95

The ORP will be informed by the Options Quote Indicator ("Indicator") based on the Black-Scholes options pricing model, which will "assess the materiality of an imminent change to the current best Protected Bid of the Away Markets to a lower price or of an imminent change to the current best Protected Offer of the Away Markets to a higher price for a particular listed options series (i.e., an imminent adverse price change)." To perform this assessment, the Indicator will use both real time relative quoting activity of protected quotations from eleven exchanges ⁹⁷ and a proprietary quote instability calculation. ⁹⁸

According to the Exchange, when the quote instability calculation "identifies an imminent adverse price change to the best Protected Bid and/or best Protected Offer of the Away Markets in a particular listed options series, it will generate a quote instability determination" that "may only be generated at least 200 microseconds after a prior quote instability determination for a particular options series on the same side of the market (i.e., affecting resting bids or offers)." The 200-microsecond waiting period ensures that the ORP does not trigger repeatedly in rapid succession, which helps to narrowly tailor the effect that the ORP could have

⁹⁵ See Amendment No. 3, supra note 8, at 26872. See also infra notes 97-99 and accompanying text for a discussion of the quote instability calculation.

See Amendment No. 3, supra note 8, at 26872.

⁹⁷ IEX refers to these exchanges as "Signal Exchanges." See IEX Rule 11.190(g).

See Amendment No. 3, supra note 8, at 26879.

⁹⁹ Id.

when it cancels or reprices quotes. ¹⁰⁰ Once triggered, "[i]f a quote instability determination is generated for an options series quoted by a Market Maker and the quote is above (below) the price level of the quote instability determination, the quote will be either cancelled or repriced to the price level of the quote instability determination, as instructed by the Market Maker" in advance on its quote. ¹⁰¹

Subject to a proposed rule change filing, the Exchange can adjust within prescribed ranges three aspects of the Indicator's formula—the frequency of calculation of implied volatility, ¹⁰² the Quote Instability Threshold, ¹⁰³ and the Delta Bound Band that determines which series are eligible for the ORP. ¹⁰⁴ For each of these three aspects, the Exchange specifies in the rule text the possible ranges or values it may use and also specifies in the rule text the applicable range or value that is in effect. ¹⁰⁵ The applicable rule text reflects that the Exchange will submit a

See Amendment No. 3, <u>supra</u> note 8, at 26887 (explaining that, unlike the crumbling quote indicator on its equities platform, the ORP "would reprice the quote to the price level of the quote instability determination or cancel the impacted quote and not remain 'on' for a period of time after triggering.").

¹⁰¹ Id.

See proposed Rule 23.150(h)(1), Supplementary Material .05. The frequency of calculation of implied volatility, which is used to calculate the delta, will be calculated each half-hour of system operation. See Amendment No. 3, supra note 8, at 26879.

See proposed Rule 23.150(h)(1), Supplementary Material .04(2)(e). As proposed, the possible Quote Instability Threshold range will be within a range of 0% – 100%. If the Quote Instability Threshold is set at 100%, the expected change in the national best bid ("NBB")/national best offer ("NBO") of the option resulting from price movement in the underlying must be at least 100% of the current value of the NBB/NBO of the option for the ORP to trigger. If the Quote Instability Threshold is set at 0%, the ORP would trigger if there is any expected change to the NBB/NBO of the option resulting from price movement in the underlying. As proposed, the initial value for the Quote Instability Threshold would be 0.1%. When triggered, the ORP will only result in the repricing or cancellation of quotes if the change to the NBB/NBO of the option resulting from price movement in the underlying is to a different price level than the current NBB/NBO after rounding to the nearest minimum price variation. See Amendment No. 3, supra note 8, at 26879, n.159.

 $[\]underline{\text{See}}$ proposed Rule 23.150(h)(1), Supplementary Material .04(1)(q). Delta is a key metric in options trading that measures the sensitivity of an option's price to changes in the price of the underlying asset. As proposed, the Delta Bound Band would restrict the ORP from triggering unless the option's delta is within the specific band. The initial value for the Delta Bound Band would be between 0-1, with the possible range of values between 0-1. See Amendment No. 3, supra note 8, at 26879, n.158.

See Amendment No. 3, supra note 8, at 26879.

proposed rule change under Rule 19b-4 for any changes to the applicable ranges or values that are in effect. When determining to modify values within the specified range for the Quote Instability Threshold and the Delta Bound Band, the Exchange states that it would consider "the distribution of quote instability determinations, the precision of quote instability determinations, system capacity and performance, fill rates, markout data, and client feedback." ¹⁰⁷

The Exchange also proposes to require Options Members to expose their customers' orders on the Exchange for at least one second under certain circumstances before trading against such orders. The Exchange explains that this is consistent with the rules of other options exchanges ¹⁰⁸ and therefore would allow members of such other options exchanges to comply with proposed Rule 23.200 without having to program separate time parameters into their systems for compliance or order entry purposes. ¹⁰⁹

The proposed rules within Chapter 23 are substantially similar or substantively identical to rules from MIAX, NYSE Amex, MEMX Options, and Cboe, with the exception of the proposed ORP.

Chapters 24 Through 29

The Exchange also proposes to adopt the following chapters: (i) Chapter 24 regarding exercises and deliveries; ¹¹⁰ (ii) Chapter 25 regarding records, reports, and audits; ¹¹¹ (iii) Chapter 26 regarding discipline and summary suspension; ¹¹² (iv) Chapter 27 regarding doing business

¹⁰⁷ Id

See id.

See, e.g., MEMX Rule 22.11; Cboe Rule 5.9; and MIAX Options Rule 520(b).

See Amendment No. 3, supra note 8, at 26881.

See proposed Rules 24.100, 24.110, and 24.120. See also Amendment No. 3, supra note 8, at 26881.

See proposed Rules 25.100, 25.110, 25.120, 25.130, 25.140, and 25.150. See also Amendment No. 3, supra note 8, at 26881.

See proposed Rules 26.100, 26.110, and 26.120. See also Amendment No. 3, supra note 8, at 26881.

with the public; ¹¹³ (v) Chapter 28 regarding options order protection and locked and crossed markets; ¹¹⁴ and (vi) Chapter 29 regarding margin requirements. ¹¹⁵ The proposed rules within these chapters are substantively identical to MEMX Options rules.

Other Provisions

Before commencing operations, IEX Options will become a member of the Options Price Reporting Authority ("OPRA"). ¹¹⁶ As a member of OPRA, IEX Options will disseminate to OPRA its highest bid and its lowest offer and aggregate quotation size in accordance with Rule 602 of Regulation NMS. ¹¹⁷ IEX Options also will become an exchange member of the Options Clearing Corporation ("OCC") and will be linked to OCC to transmit locked-in trades for clearance and settlement.

With respect to options regulation, the Exchange's Chief Regulatory Officer, who reports to the Regulatory Oversight Committee of the Exchange's board of directors, will supervise the regulatory operations of IEX Options, including surveillance, examination, and enforcement functions and will administer regulatory services agreements applicable to IEX Options. The Exchange's existing Regulatory Oversight Committee will be responsible for overseeing the adequacy and effectiveness of the Exchange's regulatory and self-regulatory organization responsibilities, including those applicable to IEX Options. The Exchange proposes to amend its Minor Rule Violation Plan ("MRVP") to add rules related to the operation of IEX Options

^{113 &}lt;u>See</u> proposed Rules 27.100, 27.110, 27.120, 27.130, 27.140, 27.150, 27.160, 27.170, 27.180, 27.190, 27.200, 27.210, 27.220, 27.230, 27.240, 27.250, and 27.260. <u>See also Amendment No. 3, supra note 8, at 26881.</u>

See proposed Rules 28.100, 28.110, and 28.120. See also Amendment No. 3, supra note 8, at 26881.

See proposed Rules 29.100, 29.110, 29.120, and 29.130. See also Amendment No. 3, supra note 8, at 26881.

See Amendment No. 3, supra note 8, at 26882.

¹⁷ CFR 242.602. <u>See also proposed Rule 22.240(a)</u>.

consistent with other options exchanges. 118

As discussed in more detail in its filing, the Exchange will join the Options Order Protection and Locked/Crossed Market Plan, the multiparty plans under Rule 17d-2 applicable to options, a bilateral Rule 17d-2 plan with FINRA as well as a Regulatory Services Agreement with FINRA, the Options Regulatory Surveillance Authority ("ORSA"), and the Options Listing Procedures Plan ("OLPP"). 119

Finally, the Exchange proposes to modify several existing rules to accommodate IEX Options including Exchange Rule 2.160(i) (concerning registration of Principals), Exchange Rule 2.220 (concerning routing by IEX Services), and Exchange Rule 9.208 (concerning minor rule violations) as well as adopt new Rule 21.220 (concerning limitation of liability) into the options portion of its rulebook that corresponds to Rule 11.260 in the equities portion of its rulebook. These rule amendments are designed to accommodate options trading on IEX Options in a manner similar to existing options exchanges. 120

III. **Discussion and Commission Findings**

After careful review, the Commission finds that the Exchange's proposal, as modified by Amendment No. 3, is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange. ¹²¹ In particular, the Commission finds that the proposed rule change, as modified by Amendment No. 3, is consistent with Section 6

¹¹⁸ See Amendment No. 3, supra note 8, at 26881, 26883-84 (providing a discussion of the MRVP program and noting that it specifies the uncontested minor rule violations that have sanctions not exceeding \$2,500).

¹¹⁹ See Amendment No. 3, supra note 8, at 26882.

¹²⁰ See id. at 26884.

¹²¹ In approving this proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

including, among others, Sections 6(b)(1), ¹²² 6(b)(5), ¹²³ and 6(b)(8) ¹²⁴ of the Act. Section 6(b)(1) of the Act requires that an exchange be so organized and have the capacity to be able to carry out the purposes of the Act and to comply and enforce compliance by its members and persons associated with its members with the provisions of the Act, the rules and regulations thereunder, and the rules of the Exchange. Section 6(b)(5) of the Act requires that the rules of a national securities exchange be designed, among other things, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers. Section 6(b)(8) of the Act requires that the rules of a national securities exchange not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. ¹²⁵

¹⁵ U.S.C. 78f(b)(1).

¹⁵ U.S.C. 78f(b)(5).

¹⁵ U.S.C. 78f(b)(8).

¹²⁵ One commenter stated that IEX's proposal did not comply with the Exchange Act. See Letter from Stephen John Berger, Managing Director, Citadel, dated Aug. 12, 2025 ("Citadel Letter II"), at 8. First, the commenter criticized the filing of Amendment No. 3 and claimed the amendment contained "material modification[s]," including "revisions to how key variables in its quote cancellation are determined" which should necessitate withdrawal of the proposal. Amendment No. 3 did not contain material revisions to variables in the ORP formula. Rather, it codified in the rule text the initial value for each of the three variables used in the ORP: Delta Bound Band; Quote Instability Threshold; and the frequency of the calculation of implied volatility. It also specified that if IEX determines to change any of the codified values within the specified ranges or values, it will do so by submitting a proposed rule change filing. Exchanges may amend open filings, which is common, and IEX has complied with all applicable filing requirements in doing so. Second, the commenter questioned whether the Commission "reversed" an effort by IEX to withdraw the filing. See id. Exchanges may withdraw open filings or amendments thereto solely at their discretion. IEX filed Amendment No. 3 on June 17 after withdrawing Amendment No. 2 because of a technical page formatting issue. The Commission's website momentarily displayed an incorrect notation of withdrawal (only Amendment No. 2 was withdrawn, not the entire proposal), which was promptly corrected and had no effect on the status of the filing. Finally, the commenter urges the Commission to "not rush to approve" the proposal "without first ensuring that the procedural and substantive requirements of the Exchange Act and Administrative Procedure Act are fully satisfied." Id. at 9. The Commission is acting on IEX's proposal at the end of the 240-day statutory review period after noticing the proposal, instituting proceedings, noticing Amendment No. 3, and conducting three rounds of comment that attracted many comment letters. The Commission has followed all procedural and substantive requirements and is taking final action as required by the Act. See also Letter from John Ramsay, Chief Market Policy Officer, IEX, dated Aug, 20, 2025 (stating that the commenter's procedural arguments "lack merit") ("IEX Response II").

As detailed above, most of IEX Options' proposed rules are substantially similar or substantively identical to those of other exchanges and do not raise any novel issues.

The proposed ORP, together with the access delay that effectuates it, are novel for an options exchange and were the focus of commenters. However, as discussed below, an access delay paired with a mechanism to cancel or reprice orders is not novel for trading on an exchange in general as IEX already operates its equities market with the exact same access delay and an order type (D-Limit order) that can be repriced or cancelled by the Exchange.

As discussed below, the ORP is a new type of options market maker risk protection designed to protect options market makers from latency arbitrage when they need to update their option quotes following a change in the price of the security underlying the option. Options exchanges commonly offer optional risk mitigation functionality (also called risk controls) that allow market makers and others to have the exchange automatically cancel their quotes and orders when certain triggers specified by the market participant are met. The material differences between existing options risk mitigation functionality and the ORP, discussed further below, are that (1) the ORP can reprice a quote whereas existing risk mitigation functionality will only cancel quotes and orders and (2) the ORP is effectuated by a de minimis access delay on all incoming messages and orders to enable the Exchange to operate it during periods where latency arbitrage may be present.

The same reasons the Commission approved the D-Limit order type effectuated by the 350-microsecond access delay for the IEX equities market also apply to the options context for

For example, an exchange might cancel quotes based on preexisting instructions from a market maker when a certain number of executions occur against its quotes. <u>See</u>, <u>e.g.</u>, Nasdaq Phlx Rule Options 3, section 15(c); MIAX Rule 612; MEMX Rule 21.16; Nasdaq GEMX Rule Options 3, section 15(a)(3).

the ORP effectuated by an identical 350-microsecond access delay, as explained below. ¹²⁷ Those reasons are even more appropriate in the options context, as discussed below.

A. Exchange Members

As described above, only Options Members and their Sponsored Participants will be permitted to transact on the System. ¹²⁸ The Exchange also proposes rules governing member operations and member conduct, all of which are substantively identical to the rules of other exchanges, including MEMX Options. Those rules include recordkeeping and reporting requirements, ¹²⁹ discipline, ¹³⁰ margin requirements, ¹³¹ and requirements applicable to doing business with the public. ¹³²

The rules applicable to qualification, registration, member operations, and use of IEX Options are substantially similar to those of other options exchanges. For the same reasons provided by the Commission in its order approving MEMX Options, ¹³³ the proposed qualification, registration, member operations, and use of IEX Options requirements provide the Exchange with the capacity to carry out the purposes of the Exchange Act and enforce compliance by its members and persons associated with its members with the provisions of the Exchange Act, the rules and regulations thereunder, and the rules of the Exchange, provide that

See Securities Exchange Act Release No. 89686 (Aug. 26, 2020), 85 FR 54438 (Sept. 1, 2020) (SR-IEX-2019-15) ("D-Limit Approval Order"). See also Citadel Sec. LLC v. SEC, 45 F.4th 27, 458 U.S. App. D.C. 268 (D.C. Cir. 2022), available at https://media.cadc.uscourts.gov/opinions/docs/2022/07/20-1424-1956972.pdf.

See proposed Rule 18.100(a).

See proposed Chapter 25 (Records, Reports and Audits).

See proposed Chapter 26 (Discipline and Summary Suspensions).

See proposed Chapter 29 (Margin Requirements).

See proposed Chapter 27 (Doing Business with the Public).

See Securities Exchange Act Release No. 95445 (Aug. 8, 2022), 87 FR 49894, 49902 (Aug. 12, 2022) (approving rules governing MEMX Options) ("MEMX Options Order").

registered broker-dealers can become members and have access to IEX Options, and ensure that Options Members and their associated persons can be appropriately disciplined for violations of the Act, the rules and regulations thereunder, and Exchange rules. 134

Additionally, for the same reasons provided by the Commission in its order approving the MIAX exchange registration application, ¹³⁵ the proposed Options Market Maker registration and qualification requirements provide an objective process by which an Options Member could become a Market Maker on IEX, and provide for continued oversight by the Exchange to monitor for continued compliance by Market Makers with the terms of their application for such status. 136 The proposed registration and qualification requirements are also substantially similar to those of other options exchanges, such as MIAX and NYSE Amex. 137

The proposed Options Market Maker participation requirements provide that Market Makers receive certain benefits for carrying out their responsibilities. ¹³⁸ At the same time, the proposed IEX Options Market Maker participation requirements impose affirmative obligations on Market Makers that balance the benefits afforded to such participants. ¹³⁹ In addition, the continuous quoting obligations for Market Makers are designed to contribute to the maintenance of a fair and orderly market. Further, IEX Options' Market Maker participation requirements are

¹³⁴ See 15 U.S.C. 78f(b)(1), (b)(2) and (b)(6).

¹³⁵ See Securities Exchange Act Release No. 68341 (Dec. 3, 2012), 77 FR 73065, 73075 (Dec. 7, 2012).

¹³⁶ See supra notes 67-70 and 88-90 and accompanying text. See also Amendment No. 3, supra note 8, at 26867-68.

¹³⁷ See MIAX Rules 600, 602; NYSE Amex Rule 927.1NY.

¹³⁸ See supra notes 85-88 and accompanying text. See also Amendment No. 3, supra note 8, at 26868-69.

¹³⁹ See supra notes 75-86 and accompanying text.

substantially similar to the participation requirements of other exchanges that the Commission has previously approved. 140

B. <u>IEX Options Market Structure and Trading Rules</u>

With the exception of the ORP and the access delay that effectuates it, the functionalities and features of IEX Options are based on the functionalities and features previously approved for other options exchanges and do not raise novel issues. Among other things, IEX's proposed rules provide for a simple, orderly opening process for an exchange that only trades multiply listed options and an orderly re-opening process following the conclusion of a trading halt. Further, the rules provide for the electronic display and execution of orders using a pro-rata allocation model with execution priority dependent on the size and capacity of an order. IEX Options will only utilize the two industry standard order types (Limit orders and Market orders) and will offer a limited suite of order handling instructions that are substantially similar to the rules of other options exchanges, all of which are well-established in both the equities and options markets. The rules also provide an optional SUM that would initiate an auction for orders that are not immediately executable on the Exchange. 141 For the same reasons provided by the Commission in its orders approving other similar options exchange rules, the proposed execution priority rules and order types are designed to promote just and equitable principles of trade and are not designed to permit unfair discrimination between customers, issuers, brokers or dealers. 142

1. Access Delay and the Options Risk Parameter

See MIAX Rules 603-604; NYSE Amex Options Rule 927NY. The benefit the ORP conveys to Market Makers is discussed below in section III.B.1.e.

See supra notes 60-62 and accompanying text.

See Securities Exchange Act Release No. 100539 (July 15, 2024), 89 FR 58848, 58859-60 (July 19, 2024)
 (registration of MIAX Sapphire) and MEMX Options Order, supra note 133, at 49902-03.

As it does for equities, IEX will operate IEX Options subject to a physical latency mechanism that applies an access delay of 350 microseconds on all incoming quote and order messages from all Users. IEX explains that the delay is intended to "support IEX's ability to accurately account for contemporaneous market data" by providing a de minimis amount of time for "IEX to obtain the most accurate view of market data prior to executing an order or quote." Specifically, the delay "supports operation of the ORP" by providing "adequate time for the IEX System to obtain the most accurate view of market data to enable it to accurately price orders as well as to perform the Indicator calculation with current market data." 144

The ORP is an optional risk parameter available to Market Makers for their displayed quotes in certain classes. The ORP will identify when the price of an option on specified Away Markets ¹⁴⁵ "is sufficiently dislocated from the price of the underlying security to indicate that the best Protected Bid or best Protected Offer of the Away Markets in the options series is likely in transition." ¹⁴⁶ An options quote would be sufficiently dislocated from the price of its underlying stock if, e.g., the stock price moved by a large enough amount that the price of the option on it is now mispriced or "stale" (i.e., not yet updated to reflect the current market price of the underlying security). When the quote instability calculation identifies an unstable quote for a specific options series where a Market Maker is quoting and has the ORP enabled for its quote, IEX will effectuate the Market Maker's preexisting instructions to either: (1) cancel the quote or (2) reprice the quote to the price level of the quote instability determination. ¹⁴⁷ The access delay,

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Amendment No. 3, supra note 8, at 26885.

¹⁴⁴ Id. at 26886.

^{145 &}lt;u>See</u> proposed Rule 22.160(a)(8).

Amendment No. 3, supra note 8, at 26879.

¹⁴⁷ See proposed Rule 23.150(h)(1)(C).

which enables the System to perform the Indicator calculation with current market data, supports the ORP. IEX believes that this protection will "encourage market makers to post aggressively priced and/or deeper quotes on [IEX Options] which will benefit all market participants" who will have access to that liquidity.¹⁴⁸

IEX may not offer the ORP in all options classes. Rather, it will determine on a class-by-class basis whether to make the ORP available. ¹⁴⁹ Specifically, the Exchange will "focus its technology resources in an impactful manner" by offering the ORP in classes where it is likely to "achieve its intended purpose, while excluding its use where it would likely provide minimal incremental value (for example, for classes with nonstandard characteristics)." ¹⁵⁰ Additionally, the ORP is optional. For the ORP to apply, a Market Maker has to designate which quotes will be subject to the ORP. ¹⁵¹ Thus, not all quotes on IEX will be subject to being cancelled or repriced by the ORP as some classes may not be eligible for the ORP and a Market Maker may or may not elect to use the ORP when it is available.

Some commenters oppose the proposed access delay and the ORP for the reasons discussed below while other commenters support the proposal, as also discussed below. 152

a. Quote Fading Concerns

From the perspective of the liquidity taker, quote fading refers to the lack of ability to execute against a displayed quote. The ability of any market participant to successfully execute

Amendment No. 3, supra note 8, at 26885.

See proposed Rule 23.150(h)(1). The Exchange will communicate its determination by Trading Alert. See id. Other exchanges also make certain determinations pursuant to their rules on a class-by-class basis. See, e.g., Cboe Chapter 1, section B, Rule 1.5 (Exchange Determinations) and Cboe Rule 5.32(a) (concerning determining base allocation algorithms and overlays on a class-by-class basis).

Amendment No. 3, supra note 8, at 26889.

See id. at 26880-81. See also proposed Rule 23.150(h).

See infra sections III.B.1.a-i.

against any particular displayed quote is subject to a number of factors and is not guaranteed on any market, as at any time any market participant can be seeking to execute against an order that is being repriced, changed, cancelled, or executed by a different market participant.¹⁵³

Several commenters expressed concern that the ORP together with the access delay will lead to quote fading that could affect liquidity takers. ¹⁵⁴ For example, one commenter expressed concern that the ORP "will lead to increased quote fading and a less reliable displayed NBBO" and stated that it "believe[s] that designating intentionally delayed quotes as protected and requiring market participants to route orders to a delayed exchange whenever that exchange displays the best price – including when such price is stale and no longer accessible, results in inferior executions." ¹⁵⁵ Another commenter characterized quotes subject to the ORP as "maybe quotations" that would be "inaccessible" and stated that IEX failed to back up with data its assertion that the ORP would be narrowly tailored. ¹⁵⁶ Similarly, one commenter stated that the proposal could result in order routers experiencing more cancels and lower fill rates because "firms will be forced to route to IEX as if it were a typical firm quote to avoid trade-through and best execution violations." ¹⁵⁷ The commenter distinguished the ORP from other options risk

See D-Limit Approval Order, supra note 127, at 54445.

See Letter from Joanna Mallers, Secretary, FIA Principal Traders Group, dated Feb. 26, 2025 ("FIA PTG Letter"), at 1-2; Letter from Adrian Griffiths, Head of Market Structure, MEMX LLC, dated May 14, 2025 ("MEMX Letter"), at 1, 2-3, 5, 6; Letter from Angela Dunn, Principal Associate General Counsel, Nasdaq, dated May 20, 2025 ("Nasdaq Letter"), at 3, 5. See also D-Limit Approval Order, supra note 127, at 54445-47 (discussing quote fading and phantom liquidity, which refers to the ability of the liquidity taker to successfully execute against any particular displayed quote without the liquidity provider "fading" (i.e., cancelling or repricing to a worse price) the quote).

FIA PTG Letter at 1-2. The commenter mentioned its previously stated opposition to IEX's equities access delay. The commenter pointed out that, unlike equities, standardized listed options must execute on an exchange.

MEMX Letter at 1, 2-3, 5, 6. <u>See infra</u> section III.B.1.i for a discussion of the data IEX provided in Amendment No. 3.

Nasdaq Letter at 3.

protection mechanisms, stating that "ORP is designed to protect the IEX market maker from market movements by not requiring the market maker to be firm...."158

Other commenters stated that the ORP and the access delay would not cause quote fading. 159 For example, one commenter stated that the ORP "in no way offers a 'last look' or opportunity for market makers to 'change their mind' about a quote by examining inbound orders in some nefarious way...." but rather "[t]he chance of missing a fill by the blink of an eye has always – and will always – exist." ¹⁶⁰ The commenter stated that options risk mitigation functionality offers "irrefutable precedent" for similar mechanisms that "have been in place for about 20 years" where exchange functionality "prevent[s] execution of otherwise-marketable orders that may already be in flight to the exchange, or even already queued up for execution in the exchange matching engine." ¹⁶¹ Another commenter stated that "the concept of absolute quote firmness that opponents invoke simply does not reflect current practice in modern options markets" because "[o]ptions markets are characterized by ubiquitous repricing and canceling, with market makers employing sophisticated risk controls precisely because the alternative---

¹⁵⁸ Id. at 5. The commenter also stated that the access delay will result in IEX displaying stale quotes. The commenter stated that the access delay "may result in a less reliable displayed NBBO" due to "a delay in transmitting quotation updates to [OPRA]" and that IEX may thus find itself alone at the NBBO as its "quotes become stale due to" the access delay. Nasdaq Letter at 3. However, IEX states in its filing that it "will not apply [the inbound delay] to other communications between the Exchange and Users, Away Markets, data feeds, order processing and order execution on the IEX Options Book, and outbound communications to the Exchange's proprietary data feeds and OPRA." Amendment No. 3, supra note 8, at 26886. The purpose of the access delay and ORP is to allow IEX to update or cancel a quote as quickly as possible to protect Market Makers against latency arbitrage to avoid their quotes on IEX becoming stale after the price of the underlying security has moved and the option, by its nature as a derivative security, is expected to follow.

¹⁵⁹ See Letter from Steve Crutchfield, Head of Business Development, CTC, LLC, dated June 28, 2025 ("CTC Letter"), at 3-4, 5. See also Letter from J.W. Verret, Associate Professor, George Mason University Antonin Scalia Law School, dated June 24, 2025 ("Verret Letter"), at 3.

¹⁶⁰ CTC Letter at 5.

¹⁶¹ Id. at 3-4.

maintaining stale quotes in rapidly moving markets---would be economically ruinous." ¹⁶² Another commenter stated that "[o]rders sent to every exchange are always at risk of missing the market due to a cancel that may already be in flight...or an order update from another participant with a faster connection...or a shorter geographic distance to the relevant exchange data center." ¹⁶³ One commenter stated that "[t]he markets disseminated by IEX Options will be fully available for end users to trade, with the exception of the few fractions of a second after the underlying changes while market-maker quotes are being cancelled/updated. These few fractions of a second when quotes are displayed in the NBBO but are unavailable for trading happen regularly on every market, even today." ¹⁶⁴ Another commenter, a former US equity options market making firm, stated that "[q]uote availability is already limited by frequent and necessary bulk cancellations as a means of risk control. Market makers regularly cancel entire swaths of quotes in response to volatility or systemic risk." The commenter also stated that, with respect to quote availability, "quote fragmentation, latency asymmetries, and differing exchange protocols contribute to periods of unavailability. These issues are well known to practitioners and are exacerbated during volatile market conditions." ¹⁶⁶

In response to comments, IEX stated that the ORP would not prevent investors from accessing liquidity on IEX Options because the ORP would operate to protect resting orders in microsecond increments that would "add up to a miniscule percentage of the trading day" and since "investors are not attempting to time their orders in the way latency arbitrageurs do, they

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Verret Letter at 3.

¹⁶³ CTC Letter at 5.

See Letter from James Cosentino, Head of Trading, Chicago, Maven Securities, dated Aug. 14, 2025 ("Maven Letter"), at 3.

See Letter from Brian P. Donnelly, Founder, Volant Trading, dated Aug. 8, 2025 ("Volant Letter"), at 2.

¹⁶⁶ Id.

will be able to access IEX quotes that are subject to the ORP to the same extent as any other exchange quotes." ¹⁶⁷ IEX estimated that the ORP would affect quotes less than 0.001% of the trading day, on average, 168 and stated that "because market makers' systems are designed to react as quickly as possible to price changes in underlying stocks, any moments in which their quotes are substantially misaligned from these prices are necessarily extremely ephemeral, i.e., lasting microseconds." ¹⁶⁹ According to IEX, the commenters that argued that the ORP would make quotes inaccessible or undermine the integrity of the NBBO lack support for their allegations and repeat similar arguments made when IEX's D-Limit order type was proposed, and ultimately approved by the Commission, for its equities market. ¹⁷⁰ IEX also cited as precedent options purge ports that provide an expedited way for market makers to "mass cancel" their quotes in bulk across classes and series simultaneously as well as options risk mitigation functionality in place at most options exchanges—activity-based risk limits, arbitrage checks, and intrinsic value checks—that allow market makers to direct an exchange to cancel their quotes or reject orders based on various triggers, and that such risk controls "have never been viewed as allowing 'quote fading' by an exchange or the market makers that choose to use them." ¹⁷¹ In contrast to these existing exchange risk controls, IEX stated that the ORP is transparent and predictable as it is triggered by price changes in the underlying securities, while "the circumstances in which other risk limits will be employed may be known only by the market maker and are not transparent to

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See Letter from John Ramsay, Chief Market Policy Officer, IEX, dated June 19, 2025 ("IEX Response I"), at 3.

IEX Response I at 20. See also infra section III.B.1.i (discussing the data provided in Amendment No. 3).

IEX Response I at 12.

See id. at 14. See also D-Limit Approval Order, supra note 127.

IEX Response I at 10.

the broader market."¹⁷² IEX further states that it is "providing a very high level of transparency to all aspects of the ORP."¹⁷³

For the same reasons the Commission found that IEX's D-Limit order for equities will not impair access to IEX's quotation, the ORP and the access delay that effectuates it will not impair access to IEX Options' quotation. 174

Unlike equities, options are derivative securities, which means their quoted price is derived in substantial part from the price of the underlying security or securities upon which they are based. 175 Options quotes are primarily provided by options market makers who are the primary liquidity providers of displayed quotes for options because the large number of quoted options products, compared to equities, makes natural liquidity from other market participants less common across the many series across so many options classes. 176 In those moments when the price of an underlying equity security has changed, a race condition exists between a market maker that needs to update and reprice its option quotes to reflect the changed market price of the underlying security and high-speed liquidity takers that seek the short term opportunity presented by trading against those option quotes before the market maker's quote update can

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Id. at 12. IEX provides a summary of how the ORP is narrowly tailored to meet its purpose as well as the data IEX analyzed to further validate that the ORP will be narrowly tailored, which IEX notes is also described in Amendment No. 3. See id. at 11-13.

See D-Limit Approval Order, supra note 127, at 54446-47.

See, e.g., Investor Bulletin: An Introduction to Options, <u>available at: https://www.investor.gov/introduction-investing/general-resources/news-alerts/alerts-bulletins/investor-bulletins-63</u>; and Derivatives, <u>available at: https://www.investor.gov/introduction-investing/investing-basics/glossary/derivatives</u> (defining "derivatives").

Amendment No. 3, <u>supra</u> note 8, at 26880 (noting the affirmative obligations of market makers to provide two-sided options quotes and the "sheer difference in magnitude of tradeable instruments in listed options as compared to equities (approximately 1.5 million listed options series compared to approximately 11,000 listed equity securities)").

occur. 177 Some liquidity takers that are technologically sophisticated are able to minimize latencies in seeing and reacting to market data through use of low-latency systems and technology, as well as connectivity and proprietary market data purchased from exchanges, may, as a result, be able to react faster to changing market prices than others (including the market maker that posted the quote) that have not purchased those same low-latency systems, connectivity, and data sources, which can be expensive. 178 This scenario is "latency arbitrage" and results in economic losses for options market makers when they are unable to update the quoted price of their options derivative securities to correspond to a change in the price of the underlying security because a faster market participant is able to execute against the old "stale" price before the market maker can update it.

To help minimize the risk that its option quote may trade immediately following a price change in the underlying equity security before it is able to update its options quote, a market maker may find utility in an exchange risk protection tool that enables it to more efficiently and expeditiously effectuate options quote updates or take down a quote without the delay that results from it having to send in additional separate messages to instruct the exchange to do so. While some market makers may not need or want such exchange-offered risk protections because they have their own cutting-edge systems, connectivity, and data to minimize latencies and model price movements, other market makers that lack those items might benefit from functionality that minimizes latencies in effectuating quote updates. Updating or cancelling options quotes in response to a change in the price of the underlying equity security is part of the price discovery process for options and activity that a market maker is constantly doing as part of its continuous

See generally D-Limit Approval Order, supra note 127, at 54442 (discussing the race condition between liquidity providers and liquidity takers).

See id. at 54449 (discussing latency arbitrage).

quoting requirement. The access delay and the ORP together speed up that quote update or cancel process by fractions of a millisecond (because the market maker will not have to send in a separate message to update or cancel its quote) while simultaneously slowing down by those same fractions of a millisecond a market participant attempting to access that quote while the Exchange updates or cancels it. ¹⁷⁹ On account of that small delay, after which a quote could be repriced or cancelled, some commenters assert that the ORP will lead to quote fading because a market participant may not be able to successfully execute against the quote it had seen and thus from the market participant's perspective it may appear as if the quote had faded or disappeared.

First, not all classes will be eligible for the ORP and, for those classes that are eligible, some Market Makers may choose not to use it. When it is used, based on the data provided by IEX discussed in detail below, IEX states that the ORP will infrequently result in the cancelling or repricing of a displayed quote on IEX in response to a very targeted and specific pre-defined signal that suggests a high potential for latency arbitrage – considerably less than 1% of regular trading hours. ¹⁸⁰ This is because the ORP is narrowly tailored to only take action when there is a sufficient dislocation between the price of the underlying stock and the price of the option. When the ORP is not repricing or cancelling a quote, which is virtually the entire regular trading hours session, an options quote subject to the ORP will be as equally accessible as any other quote or order on IEX Options. For the small part of the day when the ORP does reprice or cancel a quote, market participants that are not engaging in latency arbitrage trading strategies are unlikely to be seeking to trade with the quote precisely when it is in the process of being repriced. As noted by

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The IEX Options access delay will be 350 microseconds. There are 1 million microseconds in a second and 1,000 microseconds in a millisecond.

See infra section III.B.1.i (discussing an analysis provided by IEX demonstrating the expected ORP activation frequency).

several commenters, investors do not typically trade in microseconds and even sophisticated market makers face challenges when competing with the small number of firms that purchase the necessary systems, connectivity, and exchange proprietary market data to target their trading to those precise periods options quotes are temporarily mispriced.¹⁸¹

The ORP attempts to address the latency arbitrage impact on options market makers using a predetermined, transparent, and codified rules-based optional tool. ¹⁸² That tool will cancel or update a quote after the underlying security changes price to reflect that price change. By their nature as derivative securities, options prices are derived in substantial part from the price of the security underlying the option, so market participants expect the price of a derivative to be determined in substantial part by the price of the underlying security. ¹⁸³ In the absence of the ORP, when the underlying security changes price, Market Makers quoting the option will correspondingly update their options quote to maintain that derivative pricing relationship. IEX's ORP, if available and opted into, will allow the options quote update process to take effect more promptly than if the Market Maker had to send in separate messages to effect that change itself. While one commenter stated that for "the first time, an exchange will adjust prices of a quote in one asset class using inputs from another asset class," ¹⁸⁴ that fact simply reflects that options are derivative securities whose prices are substantially and directly correlated with the price of their underlying security. Since the ORP is designed to reprice (or cancel) a quote to

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See, e.g., Letter from Stephen Sikes, CEO of Open to the Public Investing, Inc., dated July 9, 2025; Letter from Kelli McMorrow, Chief Advocacy Officer, American Securities Association, dated July 9, 2025; and Letter from Gregory Bayard, Electronic Options Market Making, HAP Trading LLC, dated June 16, 2025 ("HAP Trading Letter"), at 3.

IEX has encoded the totality of the ORP's operation in its rulebook and any changes to it will require IEX to submit a proposed rule change under section 19(b) of the Act. 15 U.S.C. 78s(b).

See, e.g., CTC Letter at 7 ("It is an undisputed fact that equities market activity is the underlying driver of the entire options market....").

FIA PTG Letter at 2.

minimize latency arbitrage, IEX needs to use the security price for an input. The ORP will not offer a "last look" to a Market Maker by allowing it to back away from a quote when presented with an incoming order, as one commenter claimed. ¹⁸⁵ The Market Maker will have no ability to influence the operation of the ORP (other than to opt into it or not for each quote it submits to IEX) or to choose which incoming orders to execute against (or not execute against), and IEX will effectuate the ORP without exercising subjective judgment or taking into account the interests of the Market Maker. The ORP is designed to avoid stale quotes by updating or cancelling quotes when latency arbitrage conditions are present following a price change in the underlying security and does not offer Market Makers control over who they execute against or when.

As discussed above, the ORP assesses the probability and materiality of an imminent adverse price change to the options quoted NBBO for each individual series using a formula (the "Indicator"). When the formula generates this "quote instability" determination for an options series, it calculates the appropriate price for the options in light of the new price for the underlying security based on the Black-Scholes options pricing model. IEX then looks to see if the Market Maker's quote for that series (when the Market Maker elected to use the ORP) is above (below) that price level. If it is, IEX will either cancel the quote or reprice it to the level of the quote instability determination (as instructed in advance by the Market Maker). Also, as discussed above, the formula contains a few variables that are set by IEX and can be changed only through a proposed rule change filing, including the Quote Instability Threshold and the Delta Bound Band. The Quote Instability Threshold, set within a range of 0% to 100%, will trigger the ORP to reprice or cancel a quote. The initial value is set at 0.1% meaning the ORP

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See Citadel Letter II at 2.

will trigger to cancel or reprice a specific quote when the expected change in the options NBB/NBO is 0.01% of the current value of the NBB/NBO (rounded to the nearest minimum price variation). ¹⁸⁶ The Delta Bound Band, with a range of 0 to 1, reflects an option's delta, which refers to the sensitivity of the options price to changes in the price of the underlying security with higher values indicating greater sensitivity. ¹⁸⁷ The Exchange has no discretion to determine whether it will cancel or reprice a quote subject to the ORP, as the entire process is governed by the formula and methodology contained in the rulebook which is fully transparent to the public and can only be changed through a proposed rule change filing. Because the formula is codified in IEX's rulebook, it is fully transparent and commenters had the opportunity to review IEX's material and critique it and submit their own analysis.

In general, market participants have no guarantee that they will be successful in trading with a quote they see because intervening factors are always present, such as another broker-dealer being faster to access the quote or the market maker that posted it may already have cancelled or repriced it. ¹⁸⁸ The fastest market participants with the most latency sensitive systems, connectivity, and data needed to achieve the necessary speed to act upon the information asymmetries that underlie latency arbitrage have the advantage in that speed race, and may be accustomed to higher fill rates as a result, but those items may be prohibitively expensive for many market participants and even with those items the race still is a winner-take-all scenario where the absolute fastest takes the quote. By slightly increasing the speed at which

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See Supplementary Material .04(2)(e) to proposed Rule 23.150(h).

See Supplementary Material .04(1)(q) to proposed Rule 23.150(h).

See, e.g., D-Limit Approval Order, <u>supra</u> note 127, at 54445 ("The ability of any market participant to successfully execute against any particular displayed quote is subject to a number of factors and is not guaranteed on any market, as at any time any market participant can be seeking to execute against an order that is being repriced, changed, cancelled, or executed by a different market participant.").

market makers are able to update their quotes when the underlying security changes price, the ORP will accelerate the quote update process and therein will facilitate competition between market makers by allowing maker makers with less access to the most latency-sensitive technology to provide more liquidity at competitive prices alongside those market makers that have such access.

If such functionality is successful and results in IEX attracting more market makers to quote on its platform, then that additional liquidity, at potentially better prices if a market maker decides to quote more aggressively given the protection against latency arbitrage the ORP provides, will be available to all investors including those whose investment decisions are not informed by sub-millisecond dislocations in the price of a derivative security. Even when the ORP results in a quote being cancelled, which commonly occurs with exchange risk mitigation functionality and purge ports as discussed above, because market makers are subject to an obligation to provide continuous quotes, the ORP should not result in less liquidity because market makers will promptly reenter quotes at the updated prices. 189 In this way, exchangeprovided functionality that carries out a market maker's instructions to cancel or reprice an options quote in specific conditions, where such functionality is objective, transparent, narrowly tailored, and not overbroad in its application as proposed here, can have a beneficial effect on the options market by attracting more market makers to make markets. The result should be an increase in displayed liquidity at competitive prices, which facilitates fair competition and economically efficient executions for investors. 190 Similar to IEX's D-Limit order, the ORP will result in the repricing or cancelling of a quote so infrequently (i.e., considerably less than 1% of

See, e.g., proposed Rule 23.150(e) (concerning continuous quote obligations of Market Makers).

See 15 U.S.C 78k-1. See also, e.g., D-Limit Approval Order, supra note 127, at 54443.

regular trading hours as discussed above) "that only a small number of market participants are capable of detecting and acting upon" those conditions that trigger it such that the ORP will "not result in needless missed executions for most traders, though it will make it more difficult for a few latency arbitrage traders to profit by taking advantage of idiosyncrasies in market structure to trade with stale-price displayed quotes on IEX." ¹⁹¹

As was the case for D-Limit, IEX's proposal identifies a legitimate disadvantage in latency arbitrage faced by market makers that may lack the expensive low-latency systems, connectivity, and data sources used by those engaged in such strategies. The existence of this problem is uncontroverted and supported by the several options market makers that submitted comment letters saying how latency arbitrage is a problem that negatively affects them and how IEX's proposal addresses the problem in a manner that could result in them becoming Options Market Makers on IEX and adding new liquidity to the market. ¹⁹² Given how narrowly tailored the ORP is in addressing latency arbitrage and how infrequently it activates, it will not result in the average market participant being unduly frustrated when trying to take liquidity on IEX Options and thus will not contribute to inaccessible quotes or a less reliable NBBO if IEX is at the NBB or NBO or result in inferior executions for traders not engaged in latency arbitrage; however, as discussed above, it will by design affect speed traders engaging in latency arbitrage. ¹⁹³ By protecting Market Makers in this narrowly tailored way, IEX may attract additional liquidity, including from new market makers, which will promote more displayed

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D-Limit Approval Order, <u>supra</u> note 127, at 54444. <u>See also infra</u> section III.B.1.i (discussing an analysis provided by IEX demonstrating the expected ORP activation frequency).

See, e.g., HAP Trading Letter; CTC Letter. See also Letter from Benjamin Schiffrin, Director of Securities Policy, Better Markets, Inc., dated July 18, 2025 ("Better Markets Letter"), at 2 (citing to studies that estimate the profit potential from latency arbitrage and the cost of it to investors).

See, e.g., D-Limit Approval Order, supra note 127, at 54447.

liquidity that will be available to all market participants. The ORP and the access delay are a competitive response from IEX to mitigate competitive imbalances between liquidity providers and latency arbitrage liquidity takers in the same manner as IEX's D-Limit proposal, which is designed to encourage liquidity provision to the benefit of investors. ¹⁹⁴ Accordingly, the ORP and the access delay that effectuates it are designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest.

Further, while other exchanges' options risk protection mechanisms cancel quotes when triggered, IEX's ORP allows a Market Maker to either cancel or reprice the quote. While this is a difference for a risk protection mechanism, a repriced quote keeps that liquidity continuously available to the market (albeit at the new price) whereas a cancelled quote removes that liquidity from the market temporarily pending the market maker resubmitting a quote to comply with its continuous quote obligations. Market participants seeking to trade with a quote that is repriced by the ORP (instead of cancelled) can still get a fill using a market order or an aggressively priced limit order instead of missing an execution or being routed away if that liquidity was entirely cancelled. Given how infrequently the ORP will likely affect a quote, the ability to reprice in addition to cancelling should not detract from fair and orderly markets by making IEX's quote inaccessible or non-firm. As discussed above, long-standing options risk protection functionality and purge port functionality, which are non-transparent in their settings and customized by each firm compared to the transparent and fixed-formula ORP, have never been viewed as allowing quote fading nor have they been viewed as making quotes that can be

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cancelled non-firm. ¹⁹⁵ Rather, they have been considered as tools to enable market makers to better manage risk in support of their ability to provide continuous quotes. In addition, some existing order types on exchanges, including IEX's market maker peg order for equities, involve an exchange continually updating quotes for market makers based on an offset to a reference price, and those have also not been viewed as allowing quote fading or making quotes non-firm. ¹⁹⁶

Accordingly, the ability of the ORP to reprice a quote is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest.

b. Protected Quote Status

Several commenters opposed treating IEX Options' quotes as protected under the Options

Order Protection and Locked/Crossed Market Plan¹⁹⁷ because of the access delay that IEX will

See <u>infra</u> note 259 and accompanying text.

See, e.g., IEX Rule 11.190(b)(17) and Nasdaq Equity 4 section 4702(b)(7)(A). One commenter stated that "[i]f IEX's mechanism was truly the same as longstanding risk controls on other exchanges, then there would be no reason that IEX market makers would be able to provide 'tighter and deeper quotes' on IEX versus other exchanges." Citadel Letter II at 6. The Exchange responded by stating "[m]arket makers set their quotes based on competitive pressures and the need to compensate for the various risks involved in their business. Existing risk controls can enable them to quote at tighter spreads or in greater size than if those controls did not exist. If the ORP reduces costs from latency arbitrage that other controls do not address, those reduced costs can also affect the instruments market makers quote in and how they set their quotes." IEX Response II at 8.

In the options markets, under the Options Order Protection and Locked/Crossed Market Plan, a protected quotation is a bid or offer in an options series that (a) is displayed by an exchange that is a participant of the OCC and a party to the OPRA Plan (or a participant in another plan that provides for comparable Trade-Through and Locked and Crossed Market protection) ("Eligible Exchange"); (b) is disseminated pursuant to the OPRA Plan, and (c) is the best bid or best offer, respectively, of an Eligible Exchange. See Options Order Protection and Locked/Crossed Market Plan, available at:

https://www.theocc.com/getmedia/7fc629d9-4e54-4b99-9f11c0e4db1a2266/options_order_protection_plan.pdf, at section 2 (defining "Protected Quotation" and "Protected Bid' or 'Protected Offer'").

impose on all incoming messages. ¹⁹⁸ One commenter stated that "designating intentionally delayed quotes as protected and requiring market participants to route orders to a delayed exchange whenever that exchange displays the best price – including when such price is stale and no longer accessible, results in inferior executions." ¹⁹⁹ Another commenter stated that this requirement could require market participants to route orders to IEX "even if a market participant believes they would achieve better execution on another exchange" and suggested that "IEX may often display quotes which set the NBBO but are routinely inaccessible, compelling all other market participants to chase fleeting liquidity." ²⁰⁰ One commenter stated that market participants will be "effectively required to route orders to exchanges with artificial delays even if it is to their detriment."

Commenters that supported treating IEX Options quotes as protected pointed out that options exchanges already protect quotes that can be automatically and expeditiously cancelled by an exchange due to non-transparent activity-based risk mitigation protections and bulk quote cancel functionality, none of which are related to any observable change in the underlying

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See, e.g., Letter from Stephen John Berger, Managing Director, Global Head of Government & Regulatory Policy, Citadel Securities, dated June 23, 2025 ("Citadel Letter I") at 7-8. See also Options Order Protection and Locked/Crossed Market Plan, supra note 197. Among other things, section 5 (Order Protection) of that Plan requires exchange participant members to "establish, maintain and enforce written policies and procedures that are reasonably designed to prevent Trade-Throughs in that Participant's market in Eligible Options Classes that do not fall within an exception..." Id. at section 5. The Plan defines Trade-Through as "a transaction in an options series, either as principal or agent, at a price that is lower than a Protected Bid or higher than a Protected Offer" where Protected Bid/Offer is defined as a bid or offer displayed and disseminated by OPRA that is the best bid/offer of an exchange. See id. at section 2(21) and (17). The commenter stated that "it is notable that asymmetric intentional delays proposed by equities exchanges have not been granted order protection" and cited to one proposal from the Cboe EDGA exchange. Citadel Letter II at 2. That proposal, which differed substantially from what IEX proposes herein and involved a 4-millisecond access delay, was distinguished by the Commission as not raising the same issues as IEX's access delay. See D-Limit Approval Order, supra note 127, at 54449-50.

FIA PTG Letter at 2.

See Letter from John L. Thornton, Co-Chair, Hal S. Scott, President, and R. Glenn Hubbard, Co-Chair, Committee on Capital Markets Regulation, dated July 8, 2025 ("Committee on Capital Markets Letter"), at 2-3.

See Letter from Adam Nunes, Head of Risk, Hudson River Trading LLC, dated Aug. 8, 2025, at 2.

security price.²⁰² One commenter explained that "options markets are full of risk tools exchanges use to automatically cancel [quotes]" but that IEX's ORP is "more narrowly drawn than other risk tools to focus specifically on risks from latency arbitrage."²⁰³ Another commenter contrasted the ORP with existing risk mitigation functionality by explaining that the ORP is "transparent, predictable, and designed to address the specific problem of latency arbitrage."²⁰⁴

In response, IEX stated that "the argument that a quote cannot be considered protected if it is subject to any intentional delay, regardless of the length of the delay or its purpose or effect, should be put to bed" because "[t]he Commission has rejected that argument twice" including in an order that was upheld by the United States Court of Appeals for the District of Columbia Circuit. ²⁰⁵ IEX also explained that "the debate on whether minimally-delayed equities quotes can be protected arose entirely because of specific language in the definition of 'automated quotation' under Regulation NMS, which is not used in the options definition of protected quotation under the Options Order Protection and Locked/Crossed Market Plan." ²⁰⁶

The concept of an "automated" quotation that can be executed "immediately and automatically" in a manner that "precludes any... type of intentional device that would delay the action taken with respect to a quotation" is part of Regulation NMS that applies only to equities.²⁰⁷ The Options Order Protection and Locked/Crossed Market Plan does not contain any

See, e.g., HAP Trading Letter at 2; CTC Letter at 4.

See Letter from Daniel Schlaepfer, President, and Mario Josipovic, Vice President, Regulatory Affairs and General Counsel, Select Vantage, dated July 8, 2025 ("Select Vantage Letter"), at 2.

Verret Letter at 4.

²⁰⁵ IEX Response I at 19.

²⁰⁶ <u>Id</u>

See Securities Exchange Act Release No. 51808 (June 9, 2005) 70 FR 37496, 37534 (June 29, 2005) ("Regulation NMS Adopting Release"). The smallest time increment for distinguishing between manual and automated quotations suggested by commenters at the time Regulation NMS was adopted was 250 milliseconds. See id. at 37518. The Commission also discussed the distinction between "automated"

concept of an "automated" quotation or contain any provision that addresses delays in actions taken with respect to quotations. In 2016, the Commission addressed the interpretation of the word "immediate" in the context of Regulation NMS as "not precluding a de minimis intentional delay – i.e., a delay so short as to not frustrate the purposes of Rule 611 by impairing fair and efficient access to an exchange's quotations." 208 While that interpretation does not apply by its terms to options because the options plan does not contain the automated quotation concept, the remaining provisions in the Options Order Protection and Locked/Crossed Market Plan are substantially similar to the remaining provisions in Regulation NMS such that the Commission's interpretation also is relevant for options. As was the case for IEX's equities market, where the Commission previously determined that IEX can maintain a protected quotation when it approved IEX's exchange registration, the ORP and the access delay that effectuates it are a response to the specific problem of latency arbitrage and are designed to address that problem in a very narrowly tailored manner that promotes competition among market makers to the benefit of all investors without impeding fair and efficient access to quotes as the potential for the ORP to affect an investor is remote.²⁰⁹ IEX proposes to apply to its new options trading facility an

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quotations" and "manual quotations" where "[t]he difference in speed between automated and manual markets often is the difference between a 1-second response and a 15-second response...." See id. at 37500 n.21.

See Securities Exchange Act Release No. 78102 (June 17, 2016), 81 FR 40785, 40786 (June 23, 2016). Commission staff guidance stated that "delays of less than a millisecond are at a de minimis level that would not impair fair and efficient access to a quotation." Staff Guidance on Automated Quotations under Regulation NMS, available at: https://www.sec.gov/rules-regulations/staff-guidance/trading-markets-frequently-asked-questions-2. The Commission staff guidance represent the views of the staff of the Division of Trading and Markets. It is not a rule, regulation, or statement of the Commission. The Commission has neither approved nor disapproved its content. This staff statement, like all staff statements, has no legal force or effect: it does not alter or amend applicable law, and it creates no new or additional obligations for any person.

See Securities Exchange Act Release No. 78102, (June 17, 2016), 81 FR 40785, 41162 (June 23, 2016) (File No. S7–03–16). See also IEX Response I at 20 ("...based on the estimate that the ORP would affect quotes less than 0.001% of the day on average, the chance that a retail order would by chance arrive while a quote has been affected by the ORP is less than 1 in 100,000.") (emphasis in original).

access delay based on a speed bump that is identical to what it uses for its equities facility. Accordingly, IEX can maintain a "protected quotation" as defined by the Options Order Protection and Locked/Crossed Market Plan even if IEX's quote contains an individual quote that is subject to the ORP because IEX's best bid or best offer will meet the three conditions of the term "protected quotation" by (1) IEX (a participant of the OCC and a party to the OPRA Plan) displaying the quote, (2) IEX disseminating it pursuant to the OPRA Plan, and (3) being the best bid or best offer of IEX. Accordingly, IEX Option's quote will not be considered non-firm under the Plan.

c. Options Markets are Different

A few commenters stated that, while the Commission has previously approved an access delay coupled with an order type that allows an exchange to cancel or reprice orders, options markets are different from equities markets such that the Commission should disapprove IEX's similar proposal for options. ²¹⁰ For example, one commenter stated that "unlike the US equities market, all [options] orders must be executed on exchange" and that "the combination of far more options quotations (given the number of unique series) and far more repricing opportunities (given that IEX's quote fading mechanism is based on price movements in the underlying security) means that overall quote fading may be far more damaging compared to equities if this type of mechanism were implemented...." ²¹¹

June 4, 2025 ("IMC Schwab Citadel Letter").

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See, e.g., Letter from Joseph Corcoran, Managing Director and Associate General Counsel, and Gerald O'Hara, Vice President and Assistant General Counsel, The Securities Industry and Financial Markets Association, dated June 30, 2025 ("SIFMA Letter"); Letter from Andrew Stevens, Global General Counsel, IMC, Jeff Starr, Managing Director, Head of Operations, Charles Schwab & Co., Inc., and Stephen John Berger, Managing Director, Global Head of Government & Regulatory Policy, Citadel Securities, dated

IMC Schwab Citadel Letter at 3.

Other commenters stated that the benefits of an access delay coupled with functionality that allows an exchange to cancel or reprice orders is even more appropriate for options given the differences between equities and options market structure. For example, one commenter stated that "[t]he characteristics that distinguish options markets from equities markets make them particularly vulnerable to the latency arbitrage that IEX's protections address."²¹² In particular, the "complete reliance on exchange-based trading means that options markets cannot benefit from the off-exchange mechanisms that provide some latency arbitrage protection in equities markets" as the options market structure "creates a more rigid environment where latency arbitrageurs can systematically exploit temporary pricing dislocations without the competitive pressure that off-exchange venues provide in equities."213 The commenter stated that "[t]he relationship between options prices and underlying securities creates additional vulnerabilities that do not exist in single-asset markets" because "Market Makers must continuously update quotes across hundreds or thousands of series as underlying stock prices change, creating numerous opportunities for latency arbitrageurs to exploit temporary pricing misalignments" where "[a] single movement in an underlying stock can trigger arbitrage opportunities across multiple strikes and expirations, multiplying the potential for systematic adverse selection."214

An options market maker commenter stated that regulatory continuous quoting obligations across many series for each options class exposes market makers to a risk of significant loss due to instantaneous adverse selection across those many quotes, which results from professional high-frequency trading firms with systems that are "faster than a market maker's by tiny, otherwise insignificant fractions of a second" that "can be a significant source of

Verret Letter at 10.

²¹³ Id.

²¹⁴ Id.

such adverse selection" for market maker quotes. ²¹⁵ The commenter described this as a technological "arms race" between professional traders and market makers where the "[i]ncreased risk of instantaneous adverse selection, and the increased infrastructure cost necessary to mitigate that risk, is therefore a direct cause of market makers' quoting wider spreads and/or smaller size in order to generate sufficient risk-adjusted returns—thereby increasing costs for investors." ²¹⁶ The commenter stated that "[t]hese technology expenditures by all parties serve only to protect professional market participants from one another (and, perhaps, to generate a profit for purveyors of market data and trading infrastructure), and do not fill any expressed need for additional speed on the part of end users." ²¹⁷

Responding to comments, IEX stated that the latency arbitrage problem "is even more acute in options markets than in equities because the structure of the options markets means that market makers are even less able to protect themselves." The Exchange stated that "the fact that standardized options must be traded on exchanges reinforces the point that in options, market makers have even more significant need for protection from latency arbitrage strategies because they cannot avoid them through other venues whose design limits the effectiveness of such strategies." As a consequence, IEX stated that "competition in options markets has declined." Specifically, IEX stated that the "burden on liquidity provision has contributed to a sharp decrease over time in the number of competing market makers" (noting the recent exit of

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²¹⁵ CTC Letter at 2.

^{216 &}lt;u>Id.</u>

²¹⁷ Id.

IEX Response I at 3.

Id. at 21-22. Accordingly, the Exchange stated that "exchanges must be allowed to provide market makers a way to defend against latency arbitrage." Id.

^{220 &}lt;u>Id.</u>

Morgan Stanley from the options market making business) which has reduced competition and "contributed to a decrease in displayed liquidity per instrument, while market maker spreads have nearly doubled in the past decade." Further, "as the number of instruments has also nearly doubled alongside a sharp decrease in the number of market makers, risks to the supply of liquidity in the options markets have grown."

In prior orders, the Commission acknowledged the risks and costs presented by latency arbitrage and the disincentive it imposes on some liquidity providers.²²³ This problem is especially acute for options compared to equities given the far greater number of quoted options securities and the critical role that options market makers play in providing that liquidity on multiple exchanges across a vast number of related instruments. The differences between equities and options (i.e., for options, the substantially greater number of securities listed, the lack of an over-the-counter market, and the derivative nature of an option that requires expeditious repricing when the underlying security changes price) means the risks and costs presented by latency arbitrage and the corresponding disincentive those risks and costs impose on some liquidity providers may be greater for options than for equities. Accordingly, the protections from latency arbitrage offered by IEX Options will be appropriate and impactful for those affected market makers to the extent they can help reduce the risks and costs that the Market Makers experience from latency arbitrage. Further, the narrowly tailored character of the ORP, which is expected to impact quotes less than 1% of regular trading hours, ²²⁴ shows how the proposal will not be over broad in its application but rather will offer protection against latency arbitrage to

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²²¹ Id. at 5-6.

²²² Id. at 6.

See, e.g., D-Limit Approval Order, supra note 127, at 54442-43, 54449.

See <u>infra</u> note 322 and accompanying text. <u>See generally</u> section III.B.1.i for a discussion of the expected frequency at which ORP will be triggered.

Options Market Makers providing liquidity without being disruptive to investors seeking that liquidity, which is supported by several commenters that represent options market makers as well as institutions that trade on behalf of investors. The ORP should incentivize more Market Makers to become Options Market Makers on IEX thus adding those quotes to the national market system, including those market makers (and some commenters on the proposal) that may previously have been unable or unwilling to spend the considerable amount of money needed to invest in the technology necessary to conduct operations within microseconds-level timeframes that are imperceptible to many market participants.

d. Impact on Price Improvement Auctions

A few commenters expressed concern that the ORP could harm investors by disrupting the ability to initiate auctions on other exchanges. For example, one commenter stated that "[r]etail investor orders typically receive price improvement above and beyond the market-wide best price through 'price improvement auctions'" that require a market participant to initiate the auction at the NBBO or better. The problem the commenter identified is that "to the extent the market-wide best price is set by a Market Maker on IEX (and is a better price because of the quote fading mechanism available to the Market Maker on IEX), liquidity providers on other exchanges will be less likely to be willing (or able) to provide retail investors with additional price improvement (as the market-wide best price is already artificially aggressive)... [a]nd yet the IEX price may not actually be accessible in practice." Similarly, another commenter stated that the proposal has "the potential to prevent intra-day price improvement auctions on other

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²²⁵ IMC Schwab Citadel Letter at 2.

²²⁶ Id.

option exchanges as well as other intraday auctions from commencing due to a better displayed quote on IEX that may not be accessible once an order is routed to IEX."²²⁷

Other commenters stated that ORP would not impact retail investors. ²²⁸ For example, one commenter stated that "[r]etail investors simply do not trade within the microsecond timeframes during which IEX's protections operate."229 Another commenter stated that "this argument seems to be that a tighter NBBO on one exchange would be problematic because it means market makers will have to display better prices elsewhere too," which the commenter stated "is similar to claiming that a company should refrain from introducing innovative features to its products because doing so would increase competitive pressure on its rivals."²³⁰ A large number of individual commenters stated that certain broker-dealers (including those who commented in opposition to IEX's proposal) do not necessarily represent their interests especially when they give or accept payment for order flow.²³¹ Additionally, one commenter stated that the proposal would benefit retail investors because it would protect them from high-frequency traders who act on information faster than retail investors and profit at their expense. 232 The commenter stated that the proposal would prevent a "wealth transfer from retail investors to high-frequency traders by reducing latency arbitrage" so that "retail investors are not left behind as high-frequency traders prosper."233 Several pension plans and institutional investors similarly stated that IEX's

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Nasdaq Letter at 6.

See, e.g., Verret Letter at 3; CTC Letter at 9; Letters Type B.

Verret Letter at 3.

²³⁰ CTC Letter at 9.

See, e.g., Letters Type A; Letters Type B; Letter from Kevin S., Norwegian retail investor; Letter from "Bodysurf" Dan Ault; Letter from Edward Neill.

See Better Markets Letter at 1.

²³³ Id. at 2, 3.

proposal "will result in fairer and more efficient options markets by reducing barriers to entry and encouraging price competition," which will "directly benefit[] investors..."²³⁴

In response, IEX stated that "the chance that a retail order would by chance arrive while a quote has been affected by the ORP is less than 1 in 100,000" and so "[t]he assertion that retail price improvement auctions will be 'disrupted' rests on the premise that any better-priced IEX quote will not be accessible" but "IEX quotes will be as fully accessible to retail orders as any better priced quotes appearing on any other exchange." IEX further stated that "[a] retail investor stands to benefit from the availability of the ORP in one of two ways: the investor's order can benefit if her order executes directly against the better priced IEX quote; or, the investor will benefit if the better-priced quote creates a better starting reference price for the auction." ²³⁶

The ORP is designed to protect investors and will not materially disrupt price improvement auctions. The ORP will make it more difficult for latency sensitive professional traders to trade against Market Maker quotes during the less-than-1% of the regular trading day when the ORP may reprice or cancel those quotes.²³⁷ However, other than the 1 in 100,000

See Joint Letter from Jaime Llano (Techer Retirement System of Texas), Sam Masoudi (Wyoming Retirement System), Zachary Paris (Janus Henderson Investors), Michael C. Viteri (Arizona State Retirement System), Anthony W. Godonis (Copeland Capital Management, LLC), Adam Conn (Baillie Gifford Overseas LTD), Myrian Deslandes (La Caisse), and Kevin Duggan (Ontario Teachers' Pension Plan), dated Sept. 3, 2025, at 2.

²³⁵ IEX Response I at 20 (emphasis in original).

^{236 &}lt;u>Id.</u>

One commenter stated that "[a]lthough the aggregate total amount of time when the ORP would trigger in a single options series may be de minimis compared with the entire trading day, the number of quotes cancelled and the number of resulting missed contract fills during these windows could still be meaningful depending on when the cancellations occur (e.g., if the windows happen at the open or close, when volumes are typically higher, or during periods of high volatility when the ORP likely would trigger more frequently)." SIFMA Letter at 2. IEX presented data in Amendment No. 3 from an analysis of several days of trading in February 2025. Based on this data, and using aggressive assumptions, IEX "estimates that the ORP would impact IEX Market Maker quotes on average per series significantly less than 0.001% of the trading day during regular trading hours." See infra section III.B.1.i for a discussion of this data and the

chance that a retail order would arrive while a quote has been affected by the ORP, a quote displayed on IEX Options will still be accessible to market participants, including to retail traders whose trading decisions typically are not informed or effected on a microsecond timescale smaller than the technological, geographic, and OPRA latencies that they encounter. ²³⁸ To the extent IEX Options' quote is alone at the NBBO, investors will have access to that better price and will benefit either by being able to trade with it or by having their order auctioned on another exchange at that price (or better).

e. Unfair Advantage for Market Makers

Some commenters stated that IEX proposes to convey a significant benefit to its Market Makers through the ORP without requiring any new obligations in return. ²³⁹ One commenter explained that market makers, the only options exchange members that can quote, are subject to rigorous quoting obligations on options exchanges, and in return are rewarded by exchanges with enhanced allocations and more favorable pricing compared to other non-customer market participants who are not subject to such obligations. ²⁴⁰ The commenter stated that IEX's ORP

expected frequency at which ORP will be triggered. While the ORP will infrequently cause quotes to cancel or reprice, when it does do so it will be on account of it detecting latency arbitrage conditions. The key feature of the ORP is to protect Market Makers from latency arbitrage when quotes are being repriced. Accordingly, the ORP will result in quotes being cancelled and fills being missed because that is the objective of the ORP – to not fill at stale prices orders from latency arbitragers. The impact on retail and institutional investors that are not engaged in latency arbitrage would be expected to be materially different than the impact on professional traders that are engaged in latency arbitrage, as shown by IEX in a table showing quote-targeting fill rate by firm type for its equities market. IEX estimates that institutional brokers experience fill rates around 90% (with some around 99%) while proprietary trading firms experience fill rates around 35%, a difference that could be explained by the likelihood – in terms of time – of the firm attempting to take liquidity during latency arbitrage conditions. See IEX Response I at A-3.

See, e.g., HAP Trading Letter at 1; CTC Letter at 5 (stating that "the OPRA NBBO is <u>already</u> stale by more than 350 microseconds") (emphasis in original).

See Nasdaq Letter at 4; Citadel Letter I at 9-10. See also SIFMA Letter at 2-3.

See Nasdaq Letter at 4. See also id. at 5, nn.19-21 (describing the market maker obligations of the Nasdaq affiliate exchanges).

would protect IEX Market Makers while not requiring them to provide firm quotes, ²⁴¹ and that "[r]ewarding IEX market makers with enhanced allocations for stale quotes does not align with the risk/reward models in place at other options markets." The commenter stated that "counting quotes toward market maker obligations where the quotes become stale due to the [access delay], or were marketable and cancelled due to the ORP, does not meet the intent of the quoting obligations." Other commenters stated that the proposal could favor IEX Market Makers at the expense of other market participants. ²⁴⁴ One commenter suggested that, when cancelling or repricing a quote, the ORP "is explicitly designed to maintain queue priority" unlike "purge ports" where a market maker "completely loses queue priority" when it cancels its quotes. ²⁴⁵

Three options market maker commenters stated that the ORP will allow a larger universe of market makers to participate on IEX and provide liquidity on the basis of price competitiveness rather than speed.²⁴⁶ One such commenter stated that, "[b]y reducing the advantage of speed, it broadens access to a wider range of liquidity providers, resulting in deeper markets and tighter spreads" and "[c]rucially, it enables new market maker entrants like

See Nasdaq Letter at 5. See also supra note 157 and accompanying text.

Nasdaq Letter at 4.

²⁴³ Id.

See SIFMA Letter at 2-3; Citadel Letter I at 9-10 (stating that the proposal would promote unfair discrimination by providing an unfair advantage for IEX Market Makers over other market participants).

Citadel Letter II at 6. The Exchange stated that the commenter is "wrong on the facts" because "[i]f an IEX quote using the ORP is repriced, it will be assigned a new timestamp and will have no advantage over other orders that are already resting at the new price. In addition, because IEX is proposing to operate as a 'pro rata' market, a feature that is clearly disclosed in the [proposal], quotes for a given series at a single price level do not gain priority solely based on the time they arrive...." IEX Response II at 7.

See, e.g., HAP Trading Letter; CTC Letter; Letter from Mathieu Boivin Carrier, Director, All Options USA LLC, dated June 12, 2025 ("All Options Letter"), at 1. Another options market maker commenter stated that "protecting passive liquidity is essential to supporting fair and orderly markets. Doing so has the potential to both greatly reduce the 'technology tax' imposed by the presence of latency arbitrage, as well as improve the overall quality of the markets." Maven Letter at 2.

ourselves to participate on the basis of price competitiveness rather than speed alone."247 Another market maker commenter stated that options exchanges "continue to be characterized by a race for speed as desired by the largest market participants to increase their internalization, reduce existing competition, and prevent new entrants."248 The commenter stated that it "has firsthand experience with this market evolution and our firm's ability to improve markets and stay on the inside of the market have been reduced significantly over the last decade."²⁴⁹ The commenter further stated that "IEX is proposing a new model which seeks to cap the technical costs of speed and encourage new market-making participants to compete on price and size rather than speed," which "would cause us to reinvest in our competitive quoting efforts, set more new NBBOs, and spend more time using our quote to augment available liquidity at the inside of the market."250 Another commenter stated that the proposal is "explicitly pro-competitive" in that "[u]sing an exchange-controlled mechanism to mitigate 'pick-off' risk that could otherwise only be addressed through massive technology expenditures will lower technological barriers to entry and allow more firms—including those unwilling or unable to spend giant sums to build a microsecond-latency trading platform—to become competitive at providing liquidity, and empower many existing liquidity providers to quote more aggressively."²⁵¹ The commenter observed that "the two largest U.S. equities options market making wholesalers have commented opposing the filing, while three comparatively smaller ones (including CTC) have all commented

All Options Letter at 1. The commenter further stated "[o]ur competitive edge lies in pricing proficiency, and we are committed to delivering the best possible prices to end-investors" and that "[w]e believe this approach benefits the broader market, unlike the speed race, which increases the cost of liquidity and reduces competition." <u>Id.</u>

²⁴⁸ HAP Trading Letter at 3.

^{249 &}lt;u>Id.</u>

²⁵⁰ Id.

²⁵¹ CTC Letter at 3.

options market making)—implying the Proposal may support/encourage more upstart competitors in the market making space." ²⁵² The commenter further stated that the proposal "still allows for benefits to those who choose to invest in higher-performance trading systems since, under the Proposal, the first liquidity-taker to pass through the speedbump will uniquely be able to execute against the entire remaining posted size, if desired—even if he or she beats out other would-be takers by only a single nanosecond." ²⁵³ One commenter stated that the costs of competing with high-frequency traders have disincentivized meaningful participation in the markets by major market participants, which makes "prices less reflective of fundamental information." ²⁵⁴ The commenter stated that the proposal will "level the playing field" between high-frequency traders and other market participants by allowing market participants to better compete with high-frequency traders. ²⁵⁵

Another commenter, a former US equity options market making firm, stated that it was "ultimately forced to exit the business due to the escalating costs and arms race associated with maintaining latency competitiveness." The commenter stated that "the playing field has

⁵² Id.

²⁵³ Id.

See Better Markets Letter at 3-4.

²⁵⁵ Id. at 4.

Volant Letter at 1. The commenter stated that latency arbitrage "arises from a structural mismatch while option prices are highly sensitive to movements in their underlying equities, there are unavoidable delays in how exchanges and market participants receive and process those underlying price updates." <u>Id.</u> The commenter further stated that "[s]ophisticated firms exploit this latency gap by executing against stale option quotes before slower market makers can adjust their prices. The result is a one-sided dynamic where passive liquidity providers are routinely 'picked off' at prices that no longer reflect fair value. This leads to defensive quoting behavior, wider spreads, and thinner markets. Firms with deep expertise in option pricing and risk management - those best positioned to provide tight spreads and meaningful size - are often pushed out due to the steep technical demands required merely to remain competitive." <u>Id.</u> The commenter stated that the "costs of maintaining latency competitiveness are staggering." <u>Id.</u>

increasingly tilted toward a small number of firms with the financial and technological resources and economies of scale to operate at the bleeding edge of latency-sensitive infrastructure. These developments have created unsustainable barriers to entry and reduced the diversity of liquidity providers, ultimately harming market quality for end investors."²⁵⁷ The commenter further stated that "the IEX mechanism offers a precise, event driven tool that ... does not inhibit access or confer unfair advantages - it levels the playing field. By helping reduce the dependency on expensive infrastructure and allowing market makers to quote more competitively without being exposed to asymmetric risks, the proposal will enhance liquidity, improve price discovery, and ultimately benefit all investors."²⁵⁸

Finally, one commenter, an options market making firm, stated that it has had to "add tremendous complexity to combat predatory latency arbitrage," and that "if our systems are too slow (for example, more than a millionth of a second reaction time), then our quotes are traded before the exchange can process our updates... these trades happen very frequently and, in the aggregate, are very costly."²⁵⁹ The commenter stated that defending against latency arbitrage "requires annual investments in the area of \$5 million, which we project will at least double once we complete our expansion to the remaining US equity option exchanges" to merely reduce, but not eliminate, "pickoff" trades from latency arbitrageurs. ²⁶⁰ The commenter stated that all market makers need this technology at a minimum, describing this as "avoidable barriers to entry" that "grow ever larger."²⁶¹ The commenter added that retail and institutional end users are "paying

<u>Id.</u>

²⁵⁸ Id. at 2.

Maven Letter at 1-2.

²⁶⁰ Id. at 2.

^{261 &}lt;u>Id.</u>

the price in the form of wider than necessary spreads and less available liquidity."²⁶² The commenter stated that the proposal would likely result in a tightened NBBO on IEX Options by Market Makers protected by the access delay and the ORP.²⁶³

Responding to comments, the Exchange stated that the ORP is "narrowly-targeted" to "limit costs from latency arbitrage," which "can help to induce market makers to compete in more options classes, potentially with greater size and tighter spreads." In turn, the Exchange stated that "[t]hese are all effects that benefit public investors and other participants by increasing liquidity and improving price and choice in options markets." ²⁶⁵

The ORP is a new type of optional risk mitigation protection and thus will confer a benefit to Market Makers trading on the Exchange in their assigned classes when they elect to use it. IEX has not, however, proposed to subject Market Makers to additional quoting requirements as a condition for using the ORP. Other exchanges offer risk mitigation functionality to members, including to market makers, some of which is far broader in its application than the ORP, and similarly do not impose additional quoting requirements on market makers as a condition for using it.²⁶⁶ In particular, the ORP is more narrowly tailored than other options risk mitigation functionality because it will only reprice or cancel a specific series in a

Id.

^{263 &}lt;u>Id.</u> at 3-4.

IEX Response I at 9.

^{265 &}lt;u>Id.</u>

See, e.g., Nasdaq Phlx Rule Options 3, section 15 (Simple Order Risk Protections). Paragraph (c)(2) of that rule (called "Automated Quotation Adjustments") provides exchange functionality that market makers use to cancel all quotes in all series in a class (not just for a single series like ORP) over a period not to exceed 15 seconds. See Nasdaq Phlx Rule Options 3, section 15(c)(3). That provision is only available for use by market makers and does not impose any heightened quoting standards on market makers in return for its use. See also MIAX Options Rule 612 and Interpretations and Policies .02 to MIAX Options Rule 612.

class whereas options risk mitigation functionality typically will cancel all quotes and orders in all series across a class.

Only market makers are subject to continuous quoting requirements, and they take on considerable financial risk when they quote large numbers of series simultaneously. ²⁶⁷ While the ORP will provide a valuable protection to Market Makers, it is narrowly tailored to affect quotes during an exceptionally small portion of the trading day. While that effect occurs at important points when options prices are in transition and orders from high frequency traders may attempt to take quotes before they can be repriced, the ORP is "off" (i.e., not cancelling or repricing a quote) over 99% of regular trading hours where IEX will not cancel or reprice Market Maker quotes during that time. In contrast, risk mitigation functionality and bulk cancel functionality is not so narrowly tailored and can more frequently result in cancelled quotes across all series in a class at any point during trading hours based on non-transparent settings specific to each individual market-maker using the functionality. ²⁶⁸ Yet other exchanges do not impose additional obligations on market makers in return for the benefits conferred to market makers when they use their risk mitigation and bulk cancel functionality. ²⁶⁹

While the ORP will confer a direct benefit to Market Makers and not other types of market participants that post orders on IEX Options, that protection contributes to fair and orderly markets and the protection of investors through increased competition and liquidity

Unlike a single stock for which an equities market maker maintains a single quote, an options market maker quoting options on that same stock may be quoting dozens of series. When the market moves, the stock market maker only has to update one quote, but the options market maker needs to update many quotes and is exposed to risk of loss across more products as a result.

For example, if a class has 100 series, a risk mitigation functionality might cancel all 100 series in response to a triggering event. In contrast, the ORP would only cancel those series that are impacted, thus having no effect on the remaining series in the class.

See, e.g., Securities Exchange Act Release No. 94072 (Jan. 26, 2022), 87 FR 5592 (Feb. 1, 2022) (SR-NYSEARCA-2021-47).

provision by the primary source of options liquidity to the market.²⁷⁰ Market Makers are continuously managing the risk associated with their continuous quoting and thus are particularly focused on very short term movements in prices and the dislocations they can cause for derivatively-priced securities like options.²⁷¹ As the Exchange stated in the filing, options market makers must "maintain hundreds (and sometimes thousands) of quotes on options for an underlying security at any one time" and sudden market moves in the securities underlying their quoted options can leave them vulnerable to latency arbitrage if they cannot adjust quotes quickly enough to reflect the price changes of the underlying securities.²⁷² This potential for major losses resulting from latency arbitrage can cause options market makers to be less willing to quote their best possible price in the largest number of contracts they might otherwise display and that aversion to loss and inability to compete with the most technologically sophisticated firms can lead to market makers decreasing the number of options classes that they quote or leaving the business entirely.²⁷³ Because the options markets are quote-driven, they are dependent on options market makers to set prices and provide liquidity, and therefore it is crucial for options market quality to encourage options market makers to continue to quote and provide liquidity so that market participants, including retail investors, have access to liquidity at favorable prices. Limiting the ORP to Market Makers is commensurate with the risk uniquely undertaken by Market Makers by the continuous quoting obligations that apply to the multitude of series within each assigned class, which risk is not present for other market participants when

IEX states that "Market makers play a central role in the options market and account for over 99% of all open orders and quotes." Amendment No. 3, <u>supra</u> note 8, at 26888.

<u>See id.</u> (stating that "market makers typically manage their financial exposure risks resulting from their continuous quoting obligations in very short-term time frames, often measured in micro-seconds").

²⁷² See id. at 26880.

²⁷³ Id.

they only post one or a few limit orders in specific series and are not required to provide continuous quotes as are market makers. The protections afforded to market makers through risk mitigation functionality, including the ORP, are intended to incentivize market makers to quote with additional depth at potentially improved prices, which directly benefits all market participants when that liquidity is available to the market.

Accordingly, the benefits provided to Market Makers by IEX's proposal are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers. Those benefits are focused and not overbroad and are intended to specifically address the disincentive to be a market maker that latency arbitrage can present to many firms. Further, those benefits are commensurate with the benefits provided to market makers by other risk mitigation functionality and is consistent with prior precedent with other exchange options risk mitigation rules that have not imposed additional requirements on market makers for using risk mitigation functionality.²⁷⁴ The benefits provided to Market Makers by IEX's proposal also do not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.²⁷⁵

f. Intermarket Competition

Several commenters stated that the proposal would impose a burden on competition between IEX Options and other options exchanges.²⁷⁶ One commenter stated that intra-day auctions on other options exchanges would be unable to commence if there were a better displayed quote on IEX that, due to the ORP, may be a stale quote or a quote that is cancelled by

See supra note 266 and accompanying text.

²⁷⁵ 15 U.S.C. 78f(b)(8).

See, e.g., Nasdaq Letter at 1; MEMX Letter at 3; Letter from Jaime Klima, General Counsel, New York Stock Exchange, dated June 17, 2025 ("NYSE American and NYSE Arca Letter"), at 2.

the ORP in the interim.²⁷⁷ The commenter stated that "[p]reventing other options markets from commencing auctions by displaying liquidity that isn't firm or accessible creates an inter-market burden on competition."²⁷⁸ Another commenter stated that "the speed bump would incentivize market participants to interact with IEX first before trading on other markets triggers IEX to fade its existing quote."²⁷⁹ One commenter stated that "the ORP mechanism would also have significant implications for competing exchanges as firms are forced to direct their orders to IEX Options when better execution opportunities may in fact exist on other exchanges."²⁸⁰

Responding to the comments about burdens on competition with other exchanges, IEX stated that the ORP "promotes fair competition among trading venues, consistent with the Commission's prior approvals, by allowing an exchange to innovate to provide a specific solution to a specific problem."²⁸¹ IEX also stated that IEX Options' quotes would be accessible and reiterated that the point of the ORP is to reduce stale quotes so that IEX quotes would be just as current as quotes on other exchanges. ²⁸² Additionally, IEX stated that the ORP is intended to "counteract orders sent as part of latency arbitrage strategies and is designed not to impact other orders seeking to access market maker quotes." ²⁸³ Finally, IEX stated that "participants can easily account for the speed bump in routing to IEX's equities market" so "there is no reason to

Nasdaq Letter at 1, 6. The commenter also objected to a representation by IEX that most of its proposed rulebook is "substantially similar" to the rules of other options exchanges because those other options exchanges do not have an access delay on incoming messages, so the commenter recommended that IEX analyze the impact of the delay on these rules and on other options exchanges. See id. at 3. The access delay affects the System as discussed herein, but does not affect other rules like membership rules, member conduct rules, or listing rules.

Nasdag Letter at 6.

NYSE American and NYSE Area Letter at 2.

MEMX Letter at 3.

IEX Response I at 7.

²⁸² See id. at 21.

²⁸³ Id.

expect they would have any greater difficulty accounting for the identical speed bump when routing to the IEX Options market."²⁸⁴

The proposal, including the ORP and the access delay that effectuates it, does not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. ²⁸⁵ Consistent with the Commission's approval of IEX's exchange registration, the proposed access delay for options "is designed to ensure that [quotes] on IEX operate as designed and as reflected in IEX's rules" and that Market Makers on IEX can better achieve their goals when their quotes operate efficiently. ²⁸⁶ Similarly, options market participants will not necessarily need to interact with IEX first to avoid triggering the ORP (which reacts to changes in the underlying security). As with the IEX equities market, order routing that seeks "to achieve simultaneous arrival and executions across multiple exchanges in a coordinated manner" does not require a broker-dealer to preference any particular exchange over another because broker-dealers can and generally do account for geographic differences when routing and these "routing adjustments do not constitute 'preferencing' of IEX because the adjustments do not mean a market participant has to arrive and trade first on IEX." ²⁸⁷

Further, the Exchange's proposal does not impede the ability of other exchanges to compete through functionality, fees, or otherwise. As occurred following the adoption of the

Id. at 16. IEX added that "[t]his is especially so because options participants are already accustomed to the potential for mass cancelation of market maker quotes in circumstances that are not related to observable differences in equities prices." Id.

²⁸⁵ 15 U.S.C. 78f(b)(8).

Securities Exchange Act Release No. 78101 (June 17, 2016), 81 FR 41142, 41157 (June 23, 2016) (File No. 10-222). As the Commission explained when it granted IEX's exchange registration, to ensure that certain order types that are designed to reprice operate as designed and as reflected in IEX's rules, IEX slows down incoming order messages by 350 microseconds to allow IEX to take in current market data and update certain orders based on that data when the NBBO changes to ensure that those orders accurately reflect the current market as they are designed to do. See id. at 41157.

D-Limit Approval Order, <u>supra</u> note 127, at 54441.

access delay on the IEX equities market, at least one other exchange adopted its own access delay. ²⁸⁸ IEX's equities exchange market share is around 3%, indicating that other exchanges are successfully competing for volume. ²⁸⁹ Given the identical access delay on both the IEX equities and options markets, and the similar functionality that utilizes it to cancel or update quotes as a protection against latency arbitrage on both markets, the ORP and options access delay will not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act as this same structure has not done so in the case of the IEX equities market.

In denying a petition challenging the Commission's approval of IEX's D-Limit order type for equities, the United States Court of Appeals for the District of Columbia Circuit summarized the core issue as whether the Commission "may allow IEX to innovate... in a way that offers new opportunities to long-term investors." IEX Options presents that same core issue. The ORP and access delay that effectuates it are narrowly tailored to address latency arbitrage when options reprice based on changes in the underlying stock price. The ORP will only infrequently cancel or reprice quotes so market participants not engaged in latency arbitrage will rarely be impacted by it. ²⁹¹ All market participants may benefit if IEX Options attracts more firms to become Options Market Makers and provide more liquidity, potentially at improved prices, and investors will have fair and efficient access to those quotes. ²⁹² Because IEX Options presents the same issues that the Commission and the United States Court of Appeals for the District of

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See, e.g., Securities Exchange Act Release No. 80700 (May 16, 2017), 82 FR 23381 (May 22, 2017) (SR-NYSEMKT-2017-05) (order approving a 350-microsecond access delay for NYSE MKT).

²⁸⁹ Current market share statistics are available at https://www.cboe.com/us/equities/market_share/.

See Citadel Sec. LLC v. SEC, 45 F.4th 27, 458 U.S. App. D.C. 268 (D.C. Cir. 2022), available at https://media.cadc.uscourts.gov/opinions/docs/2022/07/20-1424-1956972.pdf.

See <u>infra</u> section III.B.1.i (discussing IEX's data analysis on the expected frequency with which it estimates that the ORP would impact a quote on IEX).

See supra note 190 and accompanying text.

Columbia Circuit addressed in the IEX D-Limit matter, and because the ORP and access delay for IEX Options addresses those same issues in the same narrowly tailored manner, there is substantial evidence to find that IEX's proposal does not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

g. Length of the Delay

One commenter objected to the length of the proposed access delay, explaining that, although the Commission approved a 350-microsecond delay for IEX's equities market in 2016, applying the same length delay today for options is inappropriate, unfairly discriminatory, and inconsistent with the Act, because the markets operate faster now due to changes in market technology and options market structure.²⁹³

Other commenters stated that a 350 microsecond delay is still presently de minimis and within or less than other technical and geographic latencies experienced today. ²⁹⁴ One commenter stated that "geographical latencies have not changed..." ²⁹⁵ That commenter also stated that "jitter" or random noise in exchange matching engines and market data technology routinely exceeds the duration of the proposed speedbump" and mentioned as an example "the difference between reported OPRA 10th and 99th percentile latencies has ranged from hundreds of microseconds to over 2,870 microseconds since 2021." ²⁹⁶ The commenter also stated that "the OPRA NBBO is already stale by more than 350 microseconds" and that "the aggregation,"

See Nasdaq Letter at 2, 7.

See, e.g., HAP Trading Letter at 1; CTC Letter at 9.

²⁹⁵ CTC Letter at 9.

^{296 &}lt;u>Id.</u> at 8.

calculation, and round-trip transmission times to (for example) Nasdaq's data center" are approximately 500 microseconds.²⁹⁷

Another commenter stated that it "observe[s] similar delays and quote inaccessibility resulting from the current market structure." ²⁹⁸ The commenter provided an example of a quote from an exchange located in Carteret disseminating through OPRA with "a total latency of about 525 microseconds (albeit this is often exceeded significantly in practice)."299 The commenter further stated that its "observations suggest retail brokers take well beyond 100 times more time than the speedbump to process and route a retail order instruction." ³⁰⁰ Another commenter stated that "[r]etail investors simply do not trade within the microsecond timeframes during which IEX's protections operate."301 One commenter stated that "[t]his 0.000350 second window is big enough to prevent predatory latency arbitrage, and yet small enough to minimise the chance that a real end user's order arrives at the exchange within the same window"302 and that "[t]he latency overhead of an end user without direct market access sending their order via a broker's systems is usually measured in milliseconds, a few orders of magnitude larger than the 350 microsecond de minimis delay... the extra de minimis delay should have no impact on any real end user's order, but it will have a big impact on the market-maker's ability to provide liquidity."303

²⁹⁷ Id. at 5-6.

²⁹⁸ HAP Trading Letter at 1.

Id. at 1. The commenter stated that "[f]aster paths such as microwaves and lasers are generally not used to transmit option data by order handlers such as wholesalers due to their expense and the vast bandwidth required for options data relative to equities or futures data." Id.

³⁰⁰ Id. at 3.

Verret Letter at 3.

Mayen Letter at 3.

³⁰³ Id.

Responding to the comment about the length of the access delay, IEX stated that "[c]ertain tools—microwave technology, for example—in combination with the fastest proprietary data, can reduce transmission and reaction time, but they can't overcome the laws of physics," and that such "tools have long been available to some but are not available to many participants." Further, IEX stated that participants have no trouble accounting for the same speed bump in IEX's equities market, so they should not have any problems accounting for it when routing to IEX Options, "especially so because options participants are already accustomed to the potential for mass cancelation of market maker quotes in circumstances that are not related to observable differences in equities prices." IEX stated that the length of the delay is "well within the geographic delays that exist among and between the data centers that IEX Options Members and other options exchanges use and is consistent with the naturally occurring time indeterminism that exists in order processing." Solutions is similar.

IEX Response I at 16.

³⁰⁵ Id

See Amendment No. 3, supra note 8, at 26885 (internal cites omitted). While the Commission's interpretation of "automated quotations" does not concern options because that concept applies only to equities, it nevertheless is instructive that the Commission found a de minimis delay to not impair fair and efficient access to an exchange's protected quotation. See Securities Exchange Act Release No. 78102 (June 17, 2016), 81 FR 40785 (June 23, 2016) (File No. S7-03-16).

IEX states that "latency between and among the data centers located in New Jersey range up to several hundred microseconds, with additional latency introduced by technology processing on both sides of an order or quote route between these data centers." See Amendment No. 3, supra note 8, at 26886. See also, e.g., Securities Exchange Act Release No. 78101 (June 17, 2016), 81 FR 41142 (June 23, 2016) (File No. 10-222), at n.270 (comparing the distance between NYSE's data center and Nasdaq's data center). When it approved IEX's initial exchange registration, the Commission stated that the latency to and from IEX would be comparable to, or even less than, delays attributable to other markets included in the NBBO, and cited a statement from IEX referring to the geographic distance that an order had to travel between one exchange's trading systems located in Chicago and its data center in New Jersey. See id.

The Commission has considered the comments stating that a 350-microsecond access delay is unsuitable in the current trading environment, ³⁰⁸ as well as those comments that consider it to still be de minimis. 309 The commenters that supported the length of the delay stated that it was within or shorter than delays currently experienced by market participants as a result of exchange matching engine "noise" and OPRA aggregation, calculation, and dissemination latencies, ³¹⁰ as well as vastly shorter than the time it takes retail brokers, retail investors, and market participants without direct market access to transmit an order. 311 The commenter that objected to the length of the access delay stated that the delay "is not within geographic and technological latencies experienced today for options" and stated that it has observed a "50% improvement in end to end quote message roundtrip time between 2016 and 2024 within its system" and linked to its study on transmission times between exchanges. ³¹² The Commission examined data showing OPRA's metrics from June 2025 which stated that its average message latency was 36.9 microseconds, its 10th percentile latency was 14 microseconds and its 99th percentile latency was 479 microseconds. 313 These latencies do not include the time to transmit a quote from an exchange to OPRA for consolidation and back, which, according to available public data, would take between approximately 185 microseconds and 341 microseconds in one

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See Nasdag Letter at 7.

See, e.g., HAP Trading Letter at 1; CTC Letter at 9; Maven Letter at 3. See also IEX Response I at 16.

See CTC Letter at 8, 9; HAP Trading Letter at 1.

See HAP Trading Letter at 3; Verret Letter at 3; Maven Letter at 3.

See Nasdaq Letter at 7. The commenter cited to its study that looked at fiber optic cables versus radio wave communications and the time for messages to travel between exchanges (e.g., advertised 320 microseconds between Nasdaq and NYSE and 150 microseconds between Nasdaq and IEX). That study stated "[i]n the real world, it also takes time to process and retransmit data – so actual times are likely a little slower." See Nasdaq, How Trades Speed Between Venues, available at: https://www.nasdaq.com/articles/how-trades-speed-between-venues.

See Key Operating Metrics of U.S. Options Securities Information Processor (OPRA SIP), available at https://cdn.opraplan.com/documents/OPRA SIP Metrics.pdf (last accessed Aug. 19, 2025).

direction, based on travel times between data centers used by exchanges and the Mahwah data center used by OPRA: between Secaucus and Mahwah and between Carteret and Mahwah, respectively. 314 Using OPRA processing times as a reference, which will be in addition to the time it takes market participants to receive that OPRA market data, process it, make a trading decision, and then route an order to an exchange, the proposed 350-microsecond access delay appears to be within or less than geographic and technological latencies that options market participants experience today, consistent with the Commission's approval of the IEX exchange in 2016 in which the Commission explained that IEX's speed bump is "well within the range of geographic and technological latencies that market participants experience today" such that "latency to and from IEX will be comparable to—and even less than—delays attributable to other markets that currently are included in the NBBO."315 Though the commenter observed a 50% improvement in roundtrip message time within its system, additional latencies also exist and need to be accounted for when trading, including the time associated with the aggregation and dissemination of market data and order processing times. Because of the vastly larger number of classes and series for options compared to equities, faster communication infrastructure may be impractical and prohibitively expensive for wider use. Accordingly, the latencies experienced as a result of the geographic distance between data centers, between brokers and customers, and within consolidated options market data processing and the technology that handles voluminous amounts of options market data still exceed for the average

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See ICE Global Network Factsheet, <u>available at https://www.ice.com/publicdocs/ICE Global Network Factsheet.pdf</u> (last accessed Aug. 19, 2025), at 2. A separate site provided similar transmission latencies using fiber optic cable. <u>See Nasdaq</u>, How Trades Speed Between Venues, <u>available at: https://www.nasdaq.com/articles/how-trades-speed-between-venues</u> (last accessed Aug. 19, 2025). One commenter stated that options order handlers tend to not use wireless (microwave or laser) connectivity to transmit option data due to the expense and the required bandwidth for options data. <u>See supra</u> note 299.

See Securities Exchange Act Release No. 78101 (June 17, 2016), 81 FR 41142, 41161 (June 23, 2016).

market participant the proposed 350 microsecond delay such that IEX's proposed options delay will be de minimis and will not impair fair and efficient access to options quotes on IEX.

Further, one commenter stated that "[i]t is not only the length of the intentional delay that matters, but also what is permitted to happen during the delay (i.e., IEX uses the latest market data to determine, on behalf of its market makers, whether to remain firm or cancel a displayed quote—in essence a 'last look' mechanism)."³¹⁶ This is not a novel regulatory issue because the access delay proposed for IEX Options is identical to the access delay currently in place for IEX's equities marketplace, where IEX uses the delay to take in current market data to inform whether to reprice or cancel D-Limit orders and manage other types of midpoint orders.³¹⁷ The access delay allows IEX to give effect to the protections it offers against latency arbitrage without which those protections might be ineffective because IEX would not have sufficient time to take in data, perform the necessary calculations, and take the actions required by its rules before high-speed traders are able to remove that liquidity.

h. Rule Change Required

Two commenters expressed concern that the proposal would allow IEX the discretion to set and modify parameters in the ORP calculation without the need to file proposed rule changes under Section 19 of the Act. 318 One commenter, noting that "several key parameters used in the ORP calculation are not provided in the filing," questioned whether IEX knows how ORP will operate in practice given those missing values and criticized how those parameters would be communicated in a Trading Alert and not be subject to Commission review when changed. 319

Citadel Letter II at 3.

See, e.g., D-Limit Approval Order, supra note 127.

See MEMX Letter at 5-6; Nasdaq Letter at 6.

See MEMX Letter at 5-6. See also id. at 6 (explaining that "[t]his is akin to advertising tailored shirts with a disclaimer that actual sizes will vary within a range between XS and XXL at the discretion of the tailor").

Another commenter cautioned that the proposal would give IEX control over "parameters that could vastly amend the operation of the ORP" without requiring a proposed rule change filing. 320

Responding to the comments about the need for proposed rule change filings to amend the rule, IEX amended its proposal in Amendment No. 3 to require it to submit a proposed rule change filing whenever it proposes to change the Delta Bound Band, the Quote Instability Threshold, and the frequency of the calculation of implied volatility in the ORP formula. Accordingly, IEX has fully addressed the commenters' concern by ensuring full and complete transparency in the rules of IEX concerning those material terms of the ORP formula and committing to follow the proposed rule change filing process under Section 19 of the Act. 321

i. Lack of Data

Several commenters criticized IEX for not providing sufficient data in its initial filing to support its proposal.³²² One commenter stated that IEX should provide more data to show how often the ORP would be expected to cancel or change quotes³²³ such as the "volume and depth" of Market Maker quotes cancelled or repriced and the "impact on fill rates as a result of those cancellations or repricings."³²⁴ Another commenter stated that "IEX does not provide data demonstrating that the delay will not cause market participants to miss favorable pricing opportunities" or otherwise assess the impact on market participants and questioned whether IEX "has the ability to incorporate real-time, intra-day events and news that drive the theoretical

Nasdaq Letter at 6.

³²¹ 15 U.S.C. 78s.

See, e.g., SIFMA Letter at 2; NYSE American and NYSE Area Letter at 1; MEMX Letter at 2; IMC Schwab Citadel Letter I at 3.

³²³ SIFMA Letter at 2-3.

³²⁴ Id. at 3.

implied volatility surfaces of all optionable underlying instruments."³²⁵ One commenter stated that "IEX's filing would introduce a novel exchange with no data whatsoever that would allow the Commission to evaluate whether its purportedly firm quotations would in fact be firm."³²⁶

In Amendment No. 3, IEX provided "data analysis estimating that the ORP would only have a de minimis impact on market maker quotes on IEX thus evidencing that its benefit is designed to be narrowly tailored to protect against latency arbitrage strategies." Specifically, "IEX conducted data analysis on the expected frequency with which it estimates that the ORP would impact a quote on IEX" using OPRA data "for all series of over a thousand options classes of varying levels of volume and activity for various dates in February 2025." In selecting dates for its analysis, IEX chose: "the day with the highest volume, the day with the lowest volume, the day with the highest CBOE Volatility Index ('VIX') level, the two days with the largest interday change in VIX, and Fridays with monthly and non-monthly settlements." Significantly, IEX set the ORP parameters of or its analysis at their most aggressive to assume facts that would trigger the ORP as often as possible, which resulted in the Exchange estimating the maximum possible impact of the ORP, and which, in a real world live environment, would have less of an effect because the parameters would not be as extreme.

NYSE American and NYSE Arca Letter at 1, 3.

MEMX Letter at 2.

Amendment No. 3, supra note 8, at 26866.

³²⁸ Id. at 26889.

³²⁹ <u>Id.</u>

See <u>supra</u> notes 102-107 and accompanying text for a discussion of the Quote Instability Threshold and the Delta Bound Band.

See Amendment No. 3, supra note 8, at 26889. Specifically, IEX "set the Quote Instability Threshold to 0, the Delta Bound Band to its full range of 0–1, and assumed ORP was enabled across all options classes."
 Id. In addition, "the analysis assumed that: (1) IEX's displayed quote in the options classes assessed was at the NBBO 100% of the time, (2) IEX's displayed quote in such options classes was composed exclusively of Market Maker quotes, and (3) all of those Market Maker quotes were enabled to be subject to ORP." Id.

Based on this analysis, IEX "estimates that the ORP would impact IEX Market Maker quotes on average per series significantly less than 0.001% of the trading day during regular trading hours."³³² For Penny Interval Program classes (that quote in pennies instead of larger increments) IEX estimated an impact of "on average less than 0.01%" and for classes not in the Penny Interval Program the estimate was 0.0005%. 333 For "the most active options class, the SPDR S&P 500 ETF Trust ("SPY"), the ORP would impact an IEX Market Maker's quote for less than 0.2% of the trading day."334 In light of these results, IEX concluded that the ORP "is designed to be nearly imperceptible to all market participants who are not specifically seeking to engage in latency arbitrage to execute against a market maker's quote at a stale price, based on its speed-based advantage that enables the most technologically low-latency view of market prices."335 In a response to comments, IEX stated that "[t]o further validate [its] analysis," it repeated that analysis for "the last full week of July 2025 (July 21 through July 25), using the same parameters and assumptions used in the earlier evaluation," which analysis "confirmed the Exchange's evaluation from February, as the July results were within all of the previously stated values for each category outlined in the February analysis."336

Responding to comments about its ability to perform the ORP calculations, IEX stated that "IEX is not proposing to take over the market maker's role or to take account of all the factors a market maker may consider in performing it" but rather has the limited purpose to "(i)

^{332 &}lt;u>Id.</u>

³³³ <u>Id.</u>

^{334 &}lt;u>Id.</u>

^{335 &}lt;u>Id.</u>

See IEX Response II at 10. IEX stated that "no data of any type has ever been required to justify the use of existing risk controls." Id. The Exchange also stated that "[i]n considering the claim that retail or other investor orders will fail to trade with a quote solely because the ORP has triggered, the relevant data and analysis is the data and analysis we have provided. And it is the same type of data and analysis the Commission and court used to conclude that D-Limit quotes would be accessible by investors." Id.

use the specific elements specified in the ORP formula to judge when option quote and underlying prices are fundamentally misaligned; and (ii) when they are, to take specific actions specified by the market maker."³³⁷

The data contained in Amendment No. 3 is relevant and persuasive. Time-based data is most relevant to analyze the ORP because it shows the impact on investors of the ORP, which is a tool designed to target latency arbitrage conditions that are infrequent. Volume of incoming orders affected, fill rates, and the number of market maker quotes repriced or cancelled would be misleading to evaluate the impact of a risk protection mechanism that targets latency arbitrage because higher impacted volume and lower fill rates would be evidence that a tool designed to protect liquidity providers against latency arbitrage is working exactly as intended. It would not provide evidence that firms not engaged in latency arbitrage are impacted and unable to access quotes on IEX during regular trading hours. The tool is reasonably designed to target firms engaged in latency arbitrage. IEX's analysis clearly shows that the ORP will not be overbroad in its application and, as explained above, generally should not affect market participants not engaged in latency arbitrage or adversely affect the functioning of the options market but rather will remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest.

C. Other Rules

IEX will list and trade options already listed on other options exchanges.³³⁸ The Exchange has represented that it will join the OLPP³³⁹ and will become an exchange member of

IEX Response I at 22.

See Amendment No. 3, supra note 8, at 26881.

^{339 &}lt;u>See id.</u>

OCC. ³⁴⁰ IEX's listing standards for options trading on IEX Options are substantively similar to those utilized by other exchanges including MEMX Options. ³⁴¹ For the same reasons the Commission provided in its order approving rules governing MEMX Options, the Exchange's proposed listing standards are designed to protect investors and the public interest and promote just and equitable principles of trade. ³⁴²

Further, IEX proposes operational rules that are substantively identical to the rules of other options exchanges, such as MEMX Options, including rules applicable to exercise and deliveries. Those rules adopt the common set of options exchange requirements applicable to exercise notices and applicable cut-off times for submission of exercise-related notices, the assignment of exercise notices, and delivery and payment requirements. For the same reasons the Commission provided in its order approving MEMX Options, these rules are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest, and are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers. The supplies of the exercise and open market and a national market system, and in general, to protect investors and the public interest, and are not designed to

Based on the foregoing, the proposed functionalities and features of IEX Options' overall structure and trading operations are designed to promote just and equitable principles of trade, to

See id. at 26872.

³⁴¹ See id. at 26881.

See MEMX Options Order, supra note 133.

See proposed Chapter 24 (Exercises and Deliveries).

See MEMX Options Order, supra note 133.

remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest, and are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

D. Options Order Protection, Locked/Crossed Market Plan, and Outbound Routing Risk Monitoring and Protection

The IEX Options rules are designed to comply with applicable federal securities laws and regulations and the obligations of the Options Order Protection and Locked/Crossed Market Plan. Specifically, the rules are designed to ensure that an order is not executed at a price that would trade through another options exchange. In this regard, IEX Options will be required under Rule 608(c) of Regulation NMS³⁴⁵ to comply with and enforce compliance by its Options Members with the Options Order Protection and Locked/Crossed Market Plan once it joins that plan, including the requirement to avoid trading through better prices available on other markets. Any order designated by an Options Member as routable will be routed by IEX in compliance with applicable trade-through restrictions, and any order entered with a price that would lock or cross a Protected Quotation that is not eligible for either routing or the Price Adjust process in Rule 22.100(i) will be cancelled. Additionally, as discussed above, IEX Options will route orders in options via IEX Services, the Outbound Router of the Exchange, to routing brokers that are not affiliated with the Exchange to other options exchanges. 346 Furthermore, IEX Services has, pursuant to Rule 15c3-5 under the Act, 347 implemented certain tests designed to mitigate the financial and regulatory risks associated with providing the Exchange's Users with access to

³⁴⁵ See 17 CFR 242.608(c).

The Outbound Router is subject to regulation as a facility of the Exchange, including the requirement to file proposed rule changes under section 19 of the Act. 15 U.S.C. 78s.

³⁴⁷ 17 CFR 240.15c3-5.

such away options exchanges.³⁴⁸ Pursuant to the policies and procedures developed by IEX Services to comply with Rule 15c3-5, if an order or series of orders are deemed to be erroneous or duplicative, would cause the entering User's credit exposure to exceed a preset credit threshold, or are non-compliant with applicable pre-trade regulatory requirements (as defined in Rule 15c3-5), IEX Services will reject such orders prior to routing and/or seek to cancel any orders that have been routed. This is consistent with the routing implementation of other options exchanges.³⁴⁹ For the same reasons the Commission provided in its order approving rules governing MEMX Options, the Exchange's proposed order protection rules and outbound routing rules are designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, protect investors and the public interest.³⁵⁰

Before commencing operations, IEX represents that it will join the Options Order
Protection and Locked/Crossed Market Plan. To meet their regulatory responsibilities under the
Options Order Protection and Locked/Crossed Market Plan, including the requirement to avoid
trading through better-priced protected quotations available on other markets, other options
exchanges that are participants of the Options Order Protection and Locked/Crossed Market Plan
must have sufficient notice of new protected quotations, as well as all necessary information
(such as final technical specifications). Therefore, it would be a reasonable policy and procedure
under the Options Order Protection and Locked/Crossed Market Plan for industry participants to
begin treating IEX Options' best bid and best offer as a protected quotation no later than 60 days
after the date of this order or such later date as IEX Options begins operation.

See proposed Rule 22.180(e).

IEX states that proposed Rule 22.180(e) is substantively identical to MEMX Rule 21.9(f).

See MEMX Options Order, supra note 133.

E. Risk Controls and Price Protection Mechanisms

In addition to the ORP discussed above, IEX Options will offer several optional types of risk controls used by other exchanges that are designed to offer protection from entering orders outside of certain size and price parameters, as well as certain standard or Exchange-established parameters based on order type and market conditions. These include pre-trade risk controls, activity-based risk controls, and global risk controls.³⁵¹ The Exchange will apply certain automated breach actions if the proposed risk controls are breached,³⁵² and will allow Options Members to direct the Exchange to engage in "Kill Switch Actions" to either cancel all unexecuted orders and quotes on the Exchange's order book, or block new orders and quote messages from being entered, or both.³⁵³

The Exchange also will offer price protection mechanisms that are based on the rules of NYSE Arca and Cboe, such as Limit Order Price Protection—in which the System will reject an order or quote upon entry, or cancel at the conclusion of an auction, if its price exceeds a preestablished, Exchange-defined "specified threshold" amount above or below a reference price 354—and drill-through protection, which will prevent an order from executing beyond a "buffer amount" determined based on a drill-through price. 355 The Exchange also will apply

See proposed Rules 22.250(a)(1)-(3). The Exchange represents that these rules are substantively identical to rules of NYSE Arca Options Rules 6.40P-O(a)(2), P-O(a)(3), and P-O(a)(4), respectively. See Amendment No. 3, supra note 8, at 26877, nn.131, 132, 134.

See proposed Rule 22.250(c). The Exchange represents that this rule is substantively identical to NYSE Arca Options Rule 6.40P-O(c). See Amendment No. 3, supra note 8, at 26877, n.135.

See proposed Rule 22.250(e). The Exchange represents that this rule is substantively identical to NYSE Arca Options Rule 6.40P-O(e). See Amendment No. 3, supra note 8, at 26878, n.138.

See proposed Rule 22.260(a). the Exchange represents that this rule is substantively identical to NYSE Arca Options Rule 6.62P-O(e). See Amendment No. 3, supra note 8, at 26878, n.139.

See proposed Rule 22.260(e). The Exchange represents that this rule is based upon and is substantially similar to Cboe Rule 5.34(a)(4), except IEX's drill-through protection will have a finite number of iterations that will be communicated by a trading Alert with at least 30 days prior notice. See Amendment No. 3, supra note 8, at 26878.

price reasonability checks that are based on the rules of NYSE Arca to most limit orders and quotes, which will reject order or quote messages if the price of an order meets certain parameters. 356

The proposed risk protections for IEX Options are reasonably designed to provide liquidity providers with protections to help them manage risk and efficiently use capital when trading options. These protections are in addition to, and do not take the place of, members' required market access controls, vigilant oversight of trading and algorithms, and overall risk management. For example, these mechanisms are intended to provide Market Makers with optional supplemental tools as an additional layer of protection to assist them in managing risk and utilize available capital in leveraged options securities. To the extent they achieve that intended objective, liquidity providers would be incentivized to quote more contracts at potentially better prices, thus benefitting investors through the availability of that liquidity. Accordingly, the proposed risk protections for IEX Options are designed to, among other things, promote just and equitable principles of trade and protect investors and the public interest.

F. Participation in Multiparty Options-Related Plans

The Exchange represents that it will become a participant in the various applicable multiparty plans for options trading. Specifically, the Exchange represents that IEX Options will become a member of OPRA, the Options Order Protection and Locked/Crossed Market Plan, the ORSA, and the OLPP prior to commencing operations. ³⁵⁷ Doing so will integrate IEX Options into the national market system for standardized listed options.

G. Regulation

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See proposed Rule 22.260(d), (d)(2), (d)(3). The Exchange represents that these rules are substantively identical to NYSE Arca Options Rule 6.41P-O, P-O(b) and P-O(c), respectively. See Amendment No. 3, supra note 8, at 26878, nn.143-145 and accompanying text.

See Amendment No. 3, supra note 8, at 26882.

The Exchange represents that it will leverage many of the structures it established to operate its equities market, which involve the following three elements: (i) the Exchange will join the existing options industry agreements pursuant to Section 17(d) of the Exchange Act, 358 as it did with respect to equities; (ii) the Exchange's Regulatory Services Agreement ("RSA") with FINRA will be amended to govern many aspects of the regulation and discipline of Options Members, just as it does for equities; 359 and (iii) the Exchange will perform options listing regulation, as well as authorize Options Members to trade on IEX Options, and will monitor trading on IEX Options, both through internal reports and FINRA surveillances. Furthermore, IEX proposes to amend its MRVP to encompass IEX Options in a manner that is substantially similar to and consistent with the analogous rules and plans on other options exchanges.

Also, as explained above, consistent with the Exchange's existing regulatory structure, the Exchange's Chief Regulatory Officer will have general supervision of the regulatory operations of IEX Options, including responsibility for overseeing the surveillance, examination, and enforcement functions and for administering all regulatory services agreements applicable to IEX Options. Similarly, the Exchange's existing Regulatory Oversight Committee will be

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¹⁵ U.S.C. 78q(d) and 17 CFR 240.17d-2. There are three 17d-2 plans that apply to options: the Options-Related Sales Practice Plan (File No. S7-966), the Options-Related Market Surveillance Plan (File No. 4-551), and the Regulation NMS/CAT Rules Plan (File No. 4-618). IEX is already a member of the Regulation NMS/CAT Rules Plan.

Importantly, unless relieved by the Commission of its responsibility pursuant to Rule 17d-2, the Exchange bears the responsibility for its self-regulatory obligations and primary liability for self-regulatory failures, not the self-regulatory organization ("SRO") retained to perform regulatory functions on the Exchange's behalf. See section 17(d)(1) of the Act and Rule 17d-2 thereunder (15 U.S.C. 78q(d)(1) and 17 CFR 240.17d-2). In performing these functions as agent for IEX, however, FINRA may nonetheless bear liability for causing or aiding and abetting the failure of the Exchange to perform its regulatory functions. Accordingly, although FINRA will not act on its own behalf under its self-regulatory organization responsibilities in carrying out these regulatory services for the Exchange relating to the operation of IEX Options, FINRA may have secondary liability if, for example, the Commission finds the contracted functions are being performed so inadequately as to cause a violation of the federal securities laws by the Exchange. See, e.g., Securities Exchange Act Release No. 53128 (Jan. 13, 2006), 71 FR 3550 (Jan. 23, 2006) (File No. 10-131) ("Nasdaq Exchange Registration Order").

responsible for overseeing the adequacy and effectiveness of the Exchange's regulatory and selfregulatory organization responsibilities, including those applicable to IEX Options.

As it does with its equities market, the Exchange will monitor trading on IEX Options, both through internal reports and FINRA surveillances for the purpose of maintaining a fair and orderly market. Also, as it does with its equities market, the Exchange will monitor IEX Options to identify unusual trading patterns and determine whether particular trading activity requires further regulatory investigation by FINRA.

In addition, the Exchange will oversee the process for determining and implementing trade halts, identifying and responding to unusual market conditions, and administering the Exchange's process for identifying and remediating "obvious errors" by and among its Options Members. The proposed rules in Chapter 21 (Regulation of Trading on IEX Options) regarding halts, 360 unusual market conditions, extraordinary market volatility, obvious errors, audit trail, and rules regarding prohibited and permissible transfers of options positions off the Exchange are substantively identical to the approved rules of MEMX Options. 361

Based on the foregoing, the Exchange's proposed rules and regulatory structure with respect to IEX Options provide that the Exchange will be so organized and have the capacity to be able to carry out the purposes of the Act and to comply and to enforce compliance by its members and persons associated with its members with the Act, the rules and regulations thereunder, and the rules of the Exchange, and will provide fair procedures for the discipline of members and persons associated with members. Further, it is consistent with the Act to allow the

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According to proposed Rule 21.120(b), during a trading halt, the Exchange shall process new and existing orders and quotes in a series in accordance with proposed Rule 22.160(g). The Exchange represents that proposed Rule 22.160(g) is substantively identical to NYSE Arca Options Rule 6.64P-O(g). See Amendment No. 3, supra note 8, at 26883, n.185.

See id. at 26883.

Exchange to contract with FINRA to perform functions relating to the regulation and discipline of members and the regulation of IEX Options.³⁶² These functions are fundamental elements to a regulatory program and constitute core self-regulatory functions. FINRA has the expertise and experience to perform these functions on behalf of the Exchange.³⁶³

The amended MRVP will provide the Exchange with the capacity to enforce compliance with, and provide appropriate discipline for, violations of the rules of the Exchange and the federal securities laws. As existing IEX Rule 9.216(b) will continue to offer procedural rights to a person sanctioned for a violation listed in proposed Rule 26.120, the Exchange's rules provide a fair procedure for the disciplining of members and associated persons. ³⁶⁴ For the same reasons provided by the Commission in its order approving MEMX Options, the MRVP changes should strengthen the Exchange's ability to carry out its oversight and enforcement responsibilities as an SRO in cases where full disciplinary proceedings are unsuitable in view of the minor nature of the particular violation. ³⁶⁵

In approving the proposed change to the Exchange's MRVP, the Commission in no way minimizes the importance of compliance with the Exchange's rules and all other rules subject to the imposition of fines under the Exchange's MRVP. The violation of any SRO rules, as well as the federal securities laws, is a serious matter. However, the Exchange's MRVP provides a reasonable means of addressing rule violations that do not rise to the level of requiring formal

See, e.g., Regulation of Exchanges and Alternative Trading Systems, Securities Exchange Act Release No. 40760 (Dec. 8, 1998), 63 FR 70844 (Dec. 22, 1998). See also, e.g., Securities Exchange Act Release Nos. 50122 (July 29, 2004), 69 FR 47962 (Aug. 6, 2004) (SR-Amex-2004-32) (approving rule that allowed Amex to contract with another self-regulatory organization for regulatory services).

The RSA is not before the Commission and, therefore, the Commission is not acting on it.

¹⁵ U.S.C. 78f(b)(7). The Exchange states that the rule violations in proposed Rule 26.120 are the same as the rule violations included in the MRVPs of other options exchanges, such as MEMX Chapter 25. See Amendment No. 3, supra note 8, at 26883, n.191 and accompanying text.

³⁶⁵ 17 CFR 240.19b-1(c)(2); See MEMX Options Order, supra note 133.

disciplinary proceedings, while providing flexibility in handling certain violations. The Exchange represents that it will continue to conduct surveillance with due diligence and make a determination based on its findings, on a case-by-case basis, whether a fine of more or less than the recommended amount is appropriate for a violation under the Exchange's MRVP or whether a violation requires a formal disciplinary action.³⁶⁶

H. Section 11(a) of the Act

Section 11(a)(1) of the Act³⁶⁷ prohibits a member of a national securities exchange from effecting transactions on that exchange for its own account, the account of an associated person, or an account over which it or its associated person exercises investment discretion (collectively, "covered accounts"), unless an exception applies. Rule 11a2-2(T) under the Act, ³⁶⁸ known as the "effect versus execute" rule, provides exchange members with an exemption from the Section 11(a)(1) prohibition. Rule 11a2-2(T) permits an exchange member, subject to certain conditions, to effect transactions for covered accounts by arranging for an unaffiliated member to execute transactions on the exchange. To comply with Rule 11a2-2(T)'s conditions, a member: (i) must transmit the order from off the exchange floor; (ii) may not participate in the execution of the transaction once it has been transmitted to the member performing the execution; ³⁶⁹ (iii) may not be affiliated with the executing member; and (iv) with respect to an account over which the member or an associated person has investment discretion, neither the member nor its associated person may retain any compensation in connection with effecting the transaction except as provided in the Rule.

See Amendment No. 3, supra note 8, at 26884.

³⁶⁷ 15 U.S.C. 78k(a)(1).

³⁶⁸ 17 CFR 240.11a2-2(T).

This prohibition also applies to associated persons. The member may, however, participate in clearing and settling the transaction.

In a letter to the Commission, the Exchange requests that the Commission concur with the Exchange's conclusion that Options Members that enter orders into the proposed System satisfy the requirements of Rule 11a2-2(T). For the reasons set forth below, orders entered into the System could satisfy the requirements of Rule 11a2-2(T).

The Rule's first requirement is that orders for covered accounts be transmitted from off the exchange floor. In the context of automated trading systems, the Commission has found that the off-floor transmission requirement is met if a covered account order is transmitted from a remote location directly to an exchange's floor by electronic means.³⁷¹ IEX has represented that it does not have a physical trading floor, and the System will receive orders from Options Members electronically through remote terminals or computer-to-computer interfaces.³⁷² The System satisfies this off-floor transmission requirement.

Second, the Rule requires that the member and any associated person not participate in the execution of its order after the order has been transmitted. IEX represented that at no time following the submission of an order is an Options Member or an associated person of the Options Member allowed to acquire control or influence over the result or timing of the order's

See Letter from Claudia Crowley, Chief Regulatory Officer, IEX, to Vanessa Countryman, Secretary, and Richard R. Holley III, Assistant Director, Division of Trading and Markets, Commission, dated Aug. 1, 2025 ("IEX 11(a) Letter").

See, e.g., MEMX Options Order, supra note 133, and Securities Exchange Act Release Nos. 85828 (May 10, 2019), 84 FR 21841 (May 15, 2019) (registration of Long-Term Stock Exchange); 75760 (Aug. 7, 2015) 80 FR 48600 (Aug. 13, 2015) (SR-EDGX-2015-18); 61419 (Jan. 26, 2010), 75 FR 5157 (Feb. 1, 2010) (SR-BATS-2009-031) (approving BATS options trading); 59154 (Dec. 23, 2008), 73 FR 80468 (Dec. 31, 2008) (SR-BSE-2008-48) (approving equity securities listing and trading on BSE); 57478 (Mar. 12, 2008), 73 FR 14521 (Mar. 18, 2008) (SR-NASDAQ-2007-004 and SR-NASDAQ-2007-080) (approving NOM options trading); 53128 (Jan. 13, 2006), 71 FR 3550, 3553 (Jan. 23, 2006) (File No. 10-131) (granting the exchange registration of Nasdaq Stock Market, Inc.); 44983 (Oct. 25, 2001), 66 FR 55225 (Nov. 1, 2001) (SR-PCX-00-25) (approving Archipelago Exchange); 29237 (May 24, 1991), 56 FR 24853 (May 31, 1991) (SR-NYSE-90-52 and SR-NYSE-90-53) (approving NYSE's Off-Hours Trading Facility); and 15533 (Jan. 29, 1979), 44 FR 6084 (Jan. 31, 1979) ("1979 Release").

See IEX 11(a) Letter, supra note 370, at 3.

execution.³⁷³ According to the Exchange, the execution of an Options Member's order is determined solely by what quotes and orders are present in the System at the time the Options Member submits the order, and the order priority based on IEX rules.³⁷⁴ Accordingly, an Options Member and its associated persons do not participate in the execution of an order submitted to the System.³⁷⁵

Third, Rule 11a2-2(T) requires that the order be executed by an exchange member who is unaffiliated with the member initiating the order. The Commission has stated that this requirement is satisfied when automated exchange facilities, such as the System, are used as long as the design of these systems ensures that members do not possess any special or unique trading advantages in handling their orders after transmitting them to the exchange. The Exchange has represented that the design of the System ensures that no Options Member has any special or

See id. at 4. IEX notes that Rule 11a2-2(T) does not preclude members from canceling or modifying orders, or from modifying instructions for executing orders, after they have been transmitted, provided that such cancellations or modifications are transmitted from off an exchange floor. See id. The Commission has stated that the non-participation requirement is satisfied under such circumstances so long as such modifications or cancellations are also transmitted from off the floor. See Securities Exchange Act Release No. 14563 (Mar. 14, 1978), 43 FR 11542 (Mar. 17, 1978) ("1978 Release") (stating that the "non-participation requirement does not prevent initiating members from canceling or modifying orders (or the instructions pursuant to which the initiating member wishes orders to be executed) after the orders have been transmitted to the executing member, provided that any such instructions are also transmitted from off the floor").

See IEX 11(a) Letter, supra note 370, at 4. IEX proposes rules for the registration, obligations, and operation of market makers on IEX Options. IEX has represented that market makers will submit quotes in classes of options contracts to which they are appointed.

See, e.g., Securities Exchange Act Release Nos. 58375 (Aug. 18, 2008), 73 FR 49498, 49505 (Aug. 21, 2008) (File No. 10-182) (order granting the registration of BATS Exchange, Inc.) and 61698 (Mar. 12, 2010), 75 FR 13151, 13164 (Mar. 18, 2010) (File Nos. 10-194 and 10-196) (order approving DirectEdge exchanges).

See, e.g., Securities Exchange Act Release Nos. 58375 (Aug. 18, 2008), 73 FR 49498, 49505 (Aug. 21, 2008) (File No. 10-182) and 61698 (Mar. 12, 2010), 75 FR 13151, 13164 (Mar. 18, 2010) (File Nos. 10-194 and 10-196). In considering the operation of automated execution systems operated by an exchange, the Commission stated that, while there is not an independent executing exchange member, the execution of an order is automatic once it has been transmitted into the system. Because the design of these systems ensures that members do not possess any special or unique trading advantages in handling their orders after transmitting them to the exchange, the Commission has stated that executions obtained through these systems satisfy the independent execution requirement of Rule 11a2-2(T). See 1979 Release, supra note 371.

unique trading advantages in the handling of its orders after transmitting its orders to the Exchange.³⁷⁷ Based on the Exchange's representation, the System satisfies this condition.

Fourth, in the case of a transaction effected for an account with respect to which the initiating member or an associated person thereof exercises investment discretion, neither the initiating member nor any associated person thereof may retain any compensation in connection with effecting the transaction, unless the person authorized to transact business for the account has expressly provided otherwise by written contract referring to Section 11(a) of the Act and Rule 11a2-2(T) thereunder.³⁷⁸ Options Members trading for covered accounts over which they exercise investment discretion must comply with this condition in order to rely on the rule's exemption.³⁷⁹

IV. Exemption from Section 19(b) of the Act with Regard to Cboe, NYSE, and FINRA Rules Incorporated by Reference

The Exchange proposes to incorporate by reference as IEX Options rules certain rules of Cboe, the New York Stock Exchange ("NYSE"), and FINRA.³⁸⁰ Thus, for certain IEX Options

See Securities Exchange Act Release Nos. 58375 (Aug. 18, 2008), 73 FR 49498, 49505 (Aug. 21, 2008) (File No. 10-182) and 61698 (Mar. 12, 2010), 75 FR 13151, 13164 (Mar. 18, 2010) (File Nos. 10-194 and 10-196). In addition, Rule 11a2-2(T)(d) requires a member or associated person authorized by written contract to retain compensation, in connection with effecting transactions for covered accounts over which such member or associated persons thereof exercises investment discretion, to furnish at least annually to the person authorized to transact business for the account a statement setting forth the total amount of compensation retained by the member or any associated person thereof in connection with effecting transactions for the account during the period covered by the statement. See 17 CFR 240.11a2-2(T)(d). See also 1978 Release, supra note 373 (stating "[t]he contractual and disclosure requirements are designed to assure that accounts electing to permit transaction-related compensation do so only after deciding that such arrangements are suitable to their interests").

See IEX 11(a) Letter, supra note 370, at 4-5. The Exchange represented that it will advise its membership through the issuance of an Information Circular that those Options Members trading for covered accounts over which they exercise investment discretion must comply with this condition in order to rely on the rule's exemption. See id. at 5.

Specifically, proposed Rule 27.250 proposes to incorporate by reference the applicable rules of FINRA with respect to Communications with Public Customers, and proposed Rule 29.120 proposes to incorporate by reference initial and maintenance margin requirements of either Cboe or NYSE.

See IEX 11(a) Letter, supra note 370, at 4.

rules, Exchange members will comply with a IEX Options rule by complying with the Cboe, NYSE, or FINRA rule referenced. In connection with its proposal to incorporate Cboe, NYSE and FINRA rules by reference, the Exchange requests, pursuant to Rule 240.0-12 under the Act, 381 an exemption under Section 36 of the Act 382 from the rule filing requirements of Section 19(b) of the Act for changes to those IEX Options rules that are effected solely by virtue of a change to a cross-referenced Cboe, NYSE, or FINRA rule. 383 The Exchange proposes to incorporate by reference categories of rules (rather than individual rules within a category) that are not trading rules. The Exchange agrees to provide written notice to Options Members prior to the launch of IEX Options of the specific Cboe, NYSE, and FINRA rules that it will incorporate by reference. 384 In addition, the Exchange will notify Options Members whenever Cboe, NYSE, or FINRA proposes a change to a cross-referenced Cboe, NYSE, or FINRA rule. 385

Using its authority under Section 36 of the Act, the Commission previously exempted certain SROs from the requirement to file proposed rule changes under Section 19(b) of the Act. 386 Each such exempt SRO agreed to be governed by the incorporated rules, as amended from time to time, but has not been required to file a separate proposed rule change with the Commission each time the SRO whose rules are incorporated by reference seeks to modify its

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³⁸¹ 17 CFR 240.0-12.

³⁸² 15 U.S.C. 78mm.

See Amendment No. 3, supra note 8, at 26884.

See id.

The Exchange represents that it will provide such notice through a posting on the same website location where the Exchange will post its own rule filings pursuant to Rule 19b-4(l) under Act, within the time frame required by that rule. The website posting will include a link to the location on the Cboe, NYSE, or FINRA websites where the proposed rule change is posted. See id. at 26884, n.199.

See, e.g., MEMX Options Order, supra note 133 (granting an application by MEMX LLC for an exemption pursuant to section 36(a) under the Act) and Securities Exchange Act Release No. 91877 (May 12, 2021), 86 FR 26997 (May 18, 2021) (granting an application for an exemption pursuant to section 36(a) under the Act by Nasdaq PHLX LLC).

rules. Each exempt SRO had procedures in place to provide written notice to its members each time a change is proposed to the incorporated rules of another SRO in order to provide its members with notice of a proposed rule change that affects their interests, so that they would have an opportunity to comment on it.

The Commission is granting the Exchange's request for an exemption, pursuant to Section 36 of the Act, from the rule filing requirements of Section 19(b) of the Act with respect to the rules that the Exchange proposes to incorporate by reference into the rules of IEX Options. This exemption is appropriate in the public interest and consistent with the protection of investors because it will promote more efficient use of Commission and SRO resources by avoiding duplicative rule filings based on simultaneous changes to identical rule text sought by more than one SRO. Consequently, the Commission grants the Exchange's exemption request for IEX Options. This exemption is conditioned upon the Exchange providing written notice to Options Members whenever Cboe, NYSE or FINRA proposes to change a rule that IEX Options has incorporated by reference.

V. <u>Conclusion</u>

For the foregoing reasons, the Commission finds that the proposal, as modified by Amendment No. 3, is consistent with the Act and the rules and regulations thereunder applicable to a national securities exchange.

IT IS THEREFORE ORDERED, pursuant to Section 19(b)(2) of the Act, that the proposed rule change, as modified by Amendment No. 3 (SR-IEX-2025-02) be, and it hereby is, approved.

IT IS FURTHER ORDERED, pursuant to Section 36 of the Act,³⁸⁷ that IEX shall be exempted from the rule filing requirements of Section 19(b) of the Act³⁸⁸ with respect to the Cboe, FINRA, and NYSE rules that IEX proposes to incorporate by reference in IEX Rules 27.250 and 29.120, subject to the conditions specified in this order.

By the Commission.

Vanessa A Countryman,

Secretary.

³⁸⁷ <u>See</u> 15 U.S.C. 78mm.

³⁸⁸ 15 U.S.C. 78s(b).