

**1. Text of Proposed Rule Change**

(a) MIAX PEARL, LLC (“MIAX Pearl” or “Exchange”), pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act” or “Exchange Act”)<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> proposes to amend the fee schedule applicable to the options trading platform of MIAX PEARL, LLC (“Fee Schedule”) to establish a fee for market participants that choose to utilize the Exchange’s testing systems environment via a dedicated cross connection.<sup>3</sup>

Notice of the proposed rule change for publication in the Federal Register is attached hereto as Exhibit 1, and a copy of the applicable section of the Fee Schedule is attached hereto as Exhibit 5.

(b) Not applicable.

(c) Not applicable.

**2. Procedures of the Self-Regulatory Organization**

The proposed rule change was approved by the Chief Executive Officer of the Exchange or his designee pursuant to authority delegated by the Exchange Board of Directors on February 27, 2025. Exchange staff will advise the Board of Directors of any action taken pursuant to delegated authority. No other action by the Exchange is necessary for the filing of the proposed rule change.

Questions and comments on the proposed rule change may be directed to Chris Solgan, VP, Senior Counsel, at (609) 423-9414.

**3. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change**

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<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

<sup>3</sup> All references to the “Exchange” or “MIAX Pearl” in this filing refer to MIAX Pearl Options. Any references to the equities trading facility of MIAX PEARL, LLC will specifically be referred to as “MIAX Pearl Equities.”

a. Purpose

The Exchange proposes to establish a fee for market participants that choose to utilize the Exchange's testing systems environment via a dedicated cross connection. The testing systems environment is a virtual trading system environment that supplies mock trading data for Members<sup>4</sup> and non-Members to test (i) upcoming Exchange software and code releases, (ii) product enhancements, and (iii) firm-developed software, prior to implementation in the Exchange's production (e.g., live trading) environment.<sup>5</sup> Further, the testing systems environment allows unlimited testing of existing functionality, such as order types, order entry, order management, order throughput, acknowledgements, risk settings, mass cancelations, and purge requests. The testing systems environment is built to closely approximate the production environment to enable Members and non-Members the ability to test their systems and mimics the live trading environment.<sup>6</sup>

There are currently two methods by which Members and non-Members may access the Exchange's testing systems environment.<sup>7</sup> One, Members and non-Members may access the

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<sup>4</sup> The term "Member" means an individual or organization that is registered with the Exchange pursuant to Chapter II of Exchange Rules for purposes of trading on the Exchange as an "Electronic Exchange Member" or "Market Maker." Members are deemed "members" under the Exchange Act. See the Definitions section of the Fee Schedule and Exchange Rule 100.

<sup>5</sup> The Exchange maintains two areas of the testing systems environments: one to test existing source code and another to test future software releases. All Members and non-Members that connect to the testing systems environment are provided access to both areas.

<sup>6</sup> Business continuity and disaster recovery testing is performed separately and not within the testing systems environment that is the subject of this filing.

<sup>7</sup> The Exchange decommissioned access to the testing systems environment via 1Gb and 10Gb production connections on February 28, 2025. Accordingly, each Member and non-Member that access the testing systems environment must now utilize a dedicated connection or VPN. See Trading Alert, MIAx Options, MIAx Pearl Options and MIAx Emerald Options Exchanges - Final Reminder: New Extranet Access to Firm Test Beds (FTB1 and FTB2) and Decommissioning of Access via Production Connections by February 28, 2025, available at <https://www.miaxglobal.com/alert/2025/02/19/miax-options-miax-pearl-options-and-miax-emerald-options-exchanges-final-1?nav=all> (last visited March 4, 2025).

Exchange's testing systems environment via a virtual private network ("VPN") that operates over the internet and provides site-to-site access. VPN access is provided for free to all Members and non-Members.

The second method is via a dedicated cross connection that allows Members and non-Members to access the testing systems environment and is available as either a 1 gigabit ("Gb") or 10Gb connection. Members and non-Members that utilize a VPN or a dedicated cross connection to access the testing systems environment of the Exchange are also able to access the testing systems environments of each of the Exchange's affiliated options markets – MIAX Sapphire, LLC ("MIAX Sapphire"), Miami International Securities Exchange, LLC ("MIAX"), and MIAX Emerald, LLC ("MIAX Emerald").<sup>8</sup> This dedicated cross connection provides subscribers access to the testing systems environment of the Exchange, as well as each of its affiliate options exchanges, via a single connection.

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The Exchange now proposes to amend the Fee Schedule to establish a monthly fee for Members and non-Members that choose to access the testing systems environment via a dedicated cross connect. In particular, the Exchange proposes to establish a monthly fee of \$1,000 per dedicated cross connection to the testing systems environment for Members and non-Members. The proposed fee is the same whether a Member or non-Member chooses to connect to the testing systems environment via a 1Gb or 10Gb cross connect. The proposed fees would be set forth under new Sections 4)e) and 4)f) of the Fee Schedule. Proposed Sections 4)e) and 4)f) would also codify that VPN access to the test environment is provided for free for all

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<sup>8</sup> Members and non-Members that choose to utilize the testing systems environment of MIAX Pearl Equities, the equities trading facility of MIAX PEARL, LLC, must utilize a separate dedicated cross connection as MIAX Pearl Equities' testing systems environment operates on a separate network from the affiliated options markets.

Members and non-Members and specify that VPN and each dedicated cross connect both provide access to the testing systems environments of the Exchange and each of its affiliated options markets.

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Members and non-Members that access the testing systems environment through any one of the available access methods, including a dedicated cross connection, receive functionally the same testing experience. Like the access provided by VPN, access to the testing systems environment via a dedicated cross connect enables Members and non-Members to connect their software to the testing systems environment allowing their applications to communicate directly with the testing systems environment. Each Member or non-Member is free to decide how to access the testing systems environment based on their own needs, security concerns, and trading architecture or not utilize the testing systems environment at all.<sup>9</sup> Again, accessing the testing systems environment via a dedicated direct connection is entirely optional and no Member or non-Member is required by rule or regulation to make use of the testing systems environment via a dedicated direct connection. Regardless of access method, all Members and non-Members are able to perform all of the same functions.

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<sup>9</sup> The Exchange notes that Members and non-Members are, however, required to connect to the testing systems environment for certification purposes related to upcoming Exchange-initiated technology changes. Certification is to ensure that Members and non-Members' systems would operate properly once new Exchange technology is implemented. Doing so is intended to prevent potential systems disruptions and enhance ongoing system resiliency. To certify, a Member or non-Member may use VPN access for free to satisfy its certification requirements. No Member or non-Member is required to maintain that connection to the testing systems environment and may cease such connection once they certify. The Exchange's standard certification fee pursuant to Section 4 of the Fee Schedule would not apply because the certification was due to a change initiated by the Exchange, and not the Member or non-Member. See Fee Schedule, Sections 4)c)-d). The Exchange notes that Members and non-Members are also required to certify when they initiate technology changes to their own systems or software that impacts their interactions with the Exchange. In such case, Members and non-Members would be subject to the certification fee where the change was initiated by the Member or non-Member. This certification requirement does not apply to those that connect to the Exchange through an extranet provider or solely to receive market data.

### Implementation

The proposed fee change is immediately effective.<sup>10</sup>

#### b. Statutory Basis

The Exchange believes that the proposed rule change is consistent with Section 6(b) of the Act,<sup>11</sup> in general, and furthers the objectives of Section 6(b)(5) of the Act,<sup>12</sup> in particular, in that it is not designed to permit unfair discrimination among customers, brokers, or dealers. The Exchange also believes that its proposal is consistent with Section 6(b)(4) of the Act<sup>13</sup> because it represents an equitable allocation of reasonable dues, fees and other charges among market participants using any facility or system which the Exchange operates or controls.

### **Access to the Testing Systems Environment Via a Dedicated Cross Connection is Optional**

Each Member or non-Member has a choice to decide to access the testing systems environment and, if so, how to access the testing systems environment based on their own needs, security concerns, and trading architecture.<sup>14</sup> Other than the certification requirements discussed above,<sup>15</sup> each Member or non-Member may also decide not to utilize the testing systems environment at all. Again, accessing the testing systems environment via a dedicated cross connection is entirely optional and no Member or non-Member is required by rule or regulation to make use of the testing systems environment via a dedicated direct connection. Members and

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<sup>10</sup> The Exchange initially filed this proposal on November 29, 2024. See Securities Exchange Act Release No. 101897 (December 12, 2024), 89 FR 103013 (December 18, 2024) (SR-PEARL-2024-56). On January 14, 2025, the Exchange withdrew SR-PEARL-2024-56 and refiled the proposal. See Securities Exchange Act Release No. 102288 (January 27, 2025), 90 FR 8725 (January 31, 2025) (SR-PEARL-2025-02). On March 5, 2025, the Exchange withdrew SR-PEARL-2025-02 and refiled this proposal.

<sup>11</sup> 15 U.S.C. 78f(b).

<sup>12</sup> 15 U.S.C. 78f(b)(5).

<sup>13</sup> 15 U.S.C. 78f(b)(4).

<sup>14</sup> See supra note 9.

<sup>15</sup> See supra note 9.

non-Members may select VPN access, which is provided for free and will continue to be free for all Members and non-Members. Members and non-Members may access the testing systems environment through either a VPN or a dedicated cross connection and will receive the same testing environment and are able to perform all of the same functions.<sup>16</sup> Each access method simply serves as a means to reach the same testing systems environment. The testing systems environment, whether accessed via a dedicated cross connection or VPN, provides Members and non-Members the same scope of abilities to test their systems and software in the Exchange's testing systems environment, which replicates the Exchange's production trading environment. In addition, like a dedicated cross connection, a VPN provides access to the testing systems environment of not only the Exchange, but also each of its affiliate options exchanges over the same single access point. Based on the above, accessing the testing systems environment via a dedicated cross connection provides no trading advantage to Members and non-Members compared to those market participants that elect to access the testing systems environment via a VPN for free.

Each Member or non-Member is free to decide how to access the testing systems environment based on their own needs and trading architecture. Again, accessing the testing systems environment via a dedicated direct connection is entirely optional and no Member or non-Member is required by rule or regulation to make use of the testing systems environment via a dedicated direct connection. Again, accessing the testing systems environment via the dedicated cross connection may not provide utility to all Members and non-Members based on their business models, security concerns, and needs, and such users may choose to access the

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<sup>16</sup> See supra notes 5 and 6 and accompanying text.

testing systems environment for free through the VPN and perform the same testing functions, depending on their own security risk appetite.

The Exchange notes that the testing systems environment provides mock trading data for the testing of functionality only and does not enable Members and non-Members to test performance or latency.<sup>17</sup> Members and non-Members who elect to connect to the testing systems environment via a 1Gb or 10Gb dedicated cross connection receive no latency benefit or advantage that would benefit or translate to trading over their connections to the Exchange's live trading environment.<sup>18</sup> Again, the testing systems environment provides for the testing of functionality only.

As such, the Exchange believes that the proposed fee for access to the testing systems environment via a dedicated cross connection is reasonable and Members and non-Members have the choice, but are not obligated to access the testing systems environment via a dedicated cross connection. Otherwise, a user may choose to access the test environment via a VPN for free to test system functionality. The following paragraph supports the premise that Members and Non-Members are free to select the access method the testing systems environment that best meets their connectivity needs.

As part of the decommissioning of access to the testing systems environment via productions connections by the Exchange and its affiliates, thirty-seven (37) firms that are Members and non-Members of the Exchange and/or one or more of its affiliated options exchanges needed to transition away from using their existing 1Gb or 10Gb ULL production

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<sup>17</sup> See supra note 6.

<sup>18</sup> For reference and as described in more detail below, seven Members and non-Members of the Exchange and/or its affiliates that previously accessed the testing systems environment via a 10Gb ULL production connection, which was recently discontinued, chose VPN access or a dedicated 1Gb connection to now connect to the testing systems environment.

connections to access the testing systems environment to either a VPN or dedicated cross connection. Of those thirty-seven (37) Members and non-Members, thirteen (13) chose not to maintain access the testing systems environment via VPN or dedicated connection for reasons including, but not limited to, those Member or non-Members only receive market data over their 1Gb or 10Gb ULL production connections or connect to the testing systems environment through a third party Extranet Provider. Six (6) Members and non-Members chose to access the testing systems environment through a VPN; nine (9) chose to utilize a dedicated 1Gb cross connect; and another nine (9) chose to utilize a dedicated 10Gb connect. Of the fifteen (15) Members and non-Members that chose VPN or a dedicated 1Gb connect to access the testing systems environment, seven (7) currently use 10Gb ULL connectivity to connect to the live trading environments of the Exchange and/or one or more of its affiliated options markets.

**The Proposed Fee is Reasonable because it is Similar to or Lower than Like Fees Charged by other Exchanges**

The Exchange believes the proposed fees are reasonable as the proposed fees are similar to or lower than fees charged by competing exchanges for similar services and market share. Based on publicly-available information, no single exchange currently had more than approximately 13% equity options market share for the month of December 2024,<sup>19</sup> and the Exchange compared the fees proposed herein to the fees charged by competing exchanges with a similar market share. For the month of December 2024, the Exchange had approximately 3.18% equity options market share. For the same time period, Nasdaq BX, Inc. (“Nasdaq BX Options”) had approximately 1.63% equity options market share, lower than the Exchange.<sup>20</sup> Nasdaq BX

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<sup>19</sup> See the Market Share section of the Exchange’s website, U.S. Options, available at <https://www.miaxglobal.com/company/data/market-share> (last visited December 30, 2024).

<sup>20</sup> For the month of December 2024, the Exchange notes that Nasdaq BX Options and its affiliated options markets had approximately 30.29% overall equities options market share. See the “Market Share” section of the Exchange’s website, available at <https://www.miaxglobal.com/> (last visited March 3, 2025).



Options also offers similar connectivity to their own test environments as the Exchange and charges identical fees. Like the Exchange, Nasdaq BX Options also provides access to the testing facilities of its affiliates.<sup>21</sup> Nasdaq BX Options assesses a fee of \$1,000 per hand-off, per month for subscribers to the testing facility via either a 1Gb or 10Gb switch port plus a one-time installation fee of \$1,000 per hand-off.<sup>22</sup> The Exchange's proposed fee is, therefore, lower than the fee charged by Nasdaq BX Options because it does not charge a separate installation fee. Accordingly, the Exchange believes that comparable and competitive pricing are key factors in determining whether a proposed fee meets the requirements of the Act.

### **The Proposed Fee is Not Unfairly Discriminatory**

The Exchange also believes the proposed fee is equitable and not unfairly discriminatory as the fee would apply equally to all Members and non-Members who choose to subscribe. It is a business, operational and security access decision of each Member or non-Member that chooses to subscribe. The Exchange's proposed fee would not differentiate between Members

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Meanwhile, the Exchange and its affiliated options markets had approximately 16.79% overall equities options market share. *Id.* For purposes of the fee comparisons made in this proposal, the difference in market share is not relevant because testing is conducted at the exchange-level and not all Members and non-Members that connect or trade on one exchange connect to or trade on all other exchanges within that exchange family.

<sup>21</sup> Like the Exchange discussed above, *see supra* note 9, the Exchange believes Nasdaq BX Options and its affiliates also require their own members and non-members to connect to their testing facility for certification purposes.

<sup>22</sup> *See, e.g.*, Nasdaq BX, Options 7: Pricing Schedule, Section 9 Testing Facilities, *available at* <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/Nasdaq%20Options%207>. Nasdaq's affiliates, like Nasdaq PHLX LLC ("PHLX"), also charge the same fee. *See e.g.*, PHLX Options 7: Pricing Schedule, Section 9. Other Member Fees, E. Testing Facilities, *available at* <https://listingcenter.nasdaq.com/rulebook/phlx/rules/Phlx%20Options%207> (assessing a fee of \$1,000 per hand-off, per month for subscribers to the testing facility via either a 1Gb or 10Gb switch port and a one-time installation fee of \$1,000 per hand-off). *See also* Securities Exchange Act Release No. 76259 (October 26, 2015), 80 FR 66947 (October 30, 2015) (SR-NASDAQ-2015-117) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Options Testing Facility). Like the Exchange's testing environment, a single connection to Nasdaq's test environment provides access to the other test environments of its affiliate options markets, PHLX and Nasdaq BX, Inc.

and non-Members or connectivity types and is set at a modest level that would allow any interested Member and non-Member to subscribe based on their business and operational needs.

The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act<sup>23</sup> in that it is designed to promote just and equitable principles of trade, 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 and is not designed to permit unfair discrimination between customer, issuers, brokers and dealers. The Exchange does not believe that the proposed fee is unfairly discriminatory to subscribers to the test environment via a dedicated cross connection because, unlike the live trading environment where the capacity of connectivity to the Exchange may confer a competitive advantage to a market participant and therefore price differentiation is appropriate for the benefit conferred, there is no such benefit conferred in the testing systems environment.

The Exchange does not believe that the proposed fee is unfairly discriminatory among subscribers to the test environment because all Members and non-Members that subscribe to the service will be assessed the same fee. Because the proposed fee does not discriminate between 1Gb and 10Gb cross connection options, Members and non-Members are able to subscribe to the test environment without regard to the cost of their capacity election. Charging the same fee for either a 1Gb and 10Gb cross connection, along with providing a third option of free VPN access, is intended to provide Members and non-Members the choice to choose the access method that most closely aligns with their needs, security concerns, and trading architecture.<sup>24</sup> The Exchange believes that will allow participants to connect to the testing systems environment in the same

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<sup>23</sup> 15 U.S.C. 78f(b)(5).

<sup>24</sup> See supra note 9.

manner as they do to the live trading environment, if they choose to do so, and thereby help the testing systems environment more closely mirror the live trading environment. Providing a more useful and accurate testing systems environment will serve to improve live trading on the Exchange and the national market system by permitting Members and non-Members the ability to accurately test changes prior to implementing them in the live trading environment, thereby reducing the likelihood of a potentially disruptive system failure in the live trading environment, which has the potential to affect all market participants.

### **The Proposed Fee is Equitably Allocated**

The Exchange believes that the proposed fee is equitably allocated because all Members and non-Members that choose to connect to the test environment will be assessed a uniform fee for those services. The Exchange believes that offering subscribers the option to subscribe to either a 1Gb or 10Gb dedicated cross connection for the same fee is an equitable allocation of fees because, unlike the live trading environment, there is no competitive advantage to possessing a higher capacity connection in the test environment. The test environment is designed to closely mirror the live trading environment for Members and non-Members, including matching the capacity of the live trading environment connection of each Member and non-Member. In the absence of any competitive advantage, charging a uniform fee for both a 1Gb or 10Gb dedicated cross connection is an equitable allocation of fees.

#### **4. Self-Regulatory Organization's Statement on Burden on Competition**

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange made access to the test environment via a dedicated cross connection available to keep pace with technological changes in the industry and evolving customer needs and demands, and

believes the product will contribute to robust competition among national securities exchanges. As a result, the Exchange believes this proposed rule change permits fair competition among national securities exchanges.

The Exchange believes the proposed fee would not cause any unnecessary or inappropriate burden on intermarket competition as other exchanges are free to introduce their own comparable access methods to their testing environments for free or at lower prices, which several competing exchanges already provide.<sup>25</sup> The Exchange operates in a highly competitive environment, and its ability to price access to the test environment is constrained by the optional nature of accessing the test environment via a dedicated cross connect. Providing access to the testing systems environment via dedicated cross connection is provided purely for convenience, and, again, would be entirely optional. The Exchange notes that use of accessing the test environment via a dedicated cross connection would be completely voluntary and is simply an additional optional means to access the test environment. Members who do not prefer to access the test environment via a dedicated cross connection and pay the applicable fee will be able to continue to perform the same testing functions when accessing the test environment via the existing VPN internet access for free.<sup>26</sup> The Exchange must consider this in its pricing discipline in order to attract subscribers. The Exchange believes that if it were to propose a fee that is excessively high, it would simply serve to reduce demand for the Exchange's product, which as discussed, Members and non-Members are under no obligation to utilize.

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<sup>25</sup> See supra note 22.

<sup>26</sup> Again, the Exchange's standard certification fee would not apply because the certification was due to a change initiated by the Exchange, and not the Member or non-Member. See Fee Schedule, Sections 4)c)-d).

The Exchange does not believe the proposed rule change would cause any unnecessary or inappropriate burden on intramarket competition. Particularly, the proposed fee applies uniformly to any purchaser in that the Exchange does not differentiate between subscribers that wish to access the testing systems environment via a dedicated cross connect via either a 1Gb or 10Gb connection. The proposed fee is set at a modest level that would allow any interested market participant to purchase access to the test environment based on their business needs.

5. **Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others**

Written comments were neither solicited nor received.

6. **Extension of Time Period for Commission Action**

Not Applicable.

7. **Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2)**

Pursuant to Section 19(b)(3)(A)(ii) of the Act,<sup>27</sup> and Rule 19b-4(f)(2) thereunder<sup>28</sup> the Exchange has designated this proposal as establishing or changing a due, fee, or other charge imposed on any person, whether or not the person is a member of the SRO, which renders the proposed rule change effective upon filing.

8. **Proposed Rule Change Based on rules of Another Self-Regulatory Organization or of the Commission**

Not applicable.

9. **Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act**

Not applicable.

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<sup>27</sup> 15 U.S.C. 78s(b)(3)(A)(ii).

<sup>28</sup> 17 CFR 240.19b-4.

**10. Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act**

Not applicable.

**11. Exhibits**

1. Completed notice of proposed rule change for publication in the Federal Register.
5. Copy of the applicable section of the Fee Schedule.