

Required fields are shown with yellow backgrounds and asterisks.

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SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549  
Form 19b-4

File No. \* SR 2023 - \* 04

Amendment No. (req. for Amendments \*)

Filing by MIAX Emerald, LLC

Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

<b>Initial *</b> <input checked="" type="checkbox"/>	<b>Amendment *</b> <input type="checkbox"/>	<b>Withdrawal</b> <input type="checkbox"/>	<b>Section 19(b)(2) *</b> <input type="checkbox"/>	<b>Section 19(b)(3)(A) *</b> <input checked="" type="checkbox"/>	<b>Section 19(b)(3)(B) *</b> <input type="checkbox"/>
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<b>Pilot</b> <input type="checkbox"/>	<b>Extension of Time Period for Commission Action *</b> <input type="checkbox"/>	<b>Date Expires *</b> <input type="text"/>
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Rule

<input type="checkbox"/> 19b-4(f)(1)	<input type="checkbox"/> 19b-4(f)(4)
<input checked="" type="checkbox"/> 19b-4(f)(2)	<input type="checkbox"/> 19b-4(f)(5)
<input type="checkbox"/> 19b-4(f)(3)	<input type="checkbox"/> 19b-4(f)(6)

Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010  
Section 806(e)(1) \*

Section 806(e)(2) \*

Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934  
Section 3C(b)(2) \*

Exhibit 2 Sent As Paper Document

Exhibit 3 Sent As Paper Document

**Description**

Provide a brief description of the action (limit 250 characters, required when Initial is checked \*).

Proposal to amend the Fee Schedule to amend ToM and cToM data fees.

**Contact Information**

Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.

First Name \* Michael Last Name \* Slade

Title \* AVP, Associate Counsel

E-mail \* mslade@miami-holdings.com

Telephone \* (609) 897-8499 Fax

**Signature**

Pursuant to the requirements of the Securities Exchange of 1934, MIAX Emerald, LLC has duty caused this filing to be signed on its behalf by the undersigned thereunto duty authorized.

Date 02/23/2023

(Title \*)

By Michael Slade

AVP, Associate Counsel

(Name \*)

NOTE: Clicking the signature block at right will initiate digitally signing the form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.

Michael Slade Date: 2023.02.23 11:45:47 -05'00'

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SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EDFS website.

**Form 19b-4 Information \***

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SR-EMERALD-2023-04 - 19b4 ToM c

The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

**Exhibit 1 - Notice of Proposed Rule Change \***

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SR-EMERALD-2023-04 - Exhibit 1.do

The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 1A - Notice of Proposed Rule Change, Security-Based Swap Submission, or Advanced Notice by Clearing Agencies \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 2- Notices, Written Comments, Transcripts, Other Communications**

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Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

Exhibit Sent As Paper Document

**Exhibit 3 - Form, Report, or Questionnaire**

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Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

Exhibit Sent As Paper Document

**Exhibit 4 - Marked Copies**

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

**Exhibit 5 - Proposed Rule Text**

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SR-EMERALD-2023-04 - Exhibit 5.doc

The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change

**Partial Amendment**

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If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

## 1. **Text of the Proposed Rule Change**

(a) MIAX Emerald, LLC (“MIAX Emerald” 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 MIAX Emerald Options Exchange Fee Schedule (the “Fee Schedule”) to amend its fees for two market data products by (i) amending the fees for MIAX Emerald Top of Market (“ToM”); and (ii) establishing fees for MIAX Emerald Complex Top of Market (“cToM”).

A 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 proposed Fee Schedule is attached hereto as Exhibit 5.

(b) Inapplicable.

(c) Inapplicable.

## 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 MIAX Emerald Board of Directors on February 2, 2023. 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, Vice President, 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.

a. Purpose

The Exchange proposes to amend its fees for two market data products by (i) amending the fees for ToM; and (ii) establishing fees for cToM. The proposed fees will be immediately effective. The Exchange initially filed the proposal on December 28, 2022 (SR-EMERALD-2022-37) (the “Initial Proposal”).<sup>3</sup> The Exchange recently withdrew the Initial Proposal and replaced it with this current proposal (SR-EMERALD-2023-04).

The Exchange previously filed several proposals to adopt fees for cToM.<sup>4</sup> The Exchange notes that these prior proposals included an analysis of the costs underlying the compilation and dissemination of the proposed cToM fees. The Exchange previously included a cost analysis in the Initial Proposal. As described more fully below, the Exchange provides an updated cost analysis that includes, among other things, additional descriptions of how the Exchange allocated costs among it and its affiliated exchanges (MIAX PEARL, LLC (“MIAX Pearl”), separately among MIAX Pearl Options and MIAX Pearl Equities, and Miami International Securities Exchange, LLC (“MIAX,” together with MIAX Pearl, the “affiliated markets”)) to ensure no cost was allocated more than once, as well as additional detail supporting its cost allocation processes and explanations as to why a cost allocation in this proposal may differ from the same cost allocation in a similar proposal submitted by one of its affiliated markets. Although the

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<sup>3</sup> See Securities Exchange Act Release No. 96625 (January 10, 2023), 88 FR 2688 (January 17, 2023) (SR-EMERALD-2022-37).

<sup>4</sup> See Securities Exchange Act Release Nos. 92358 (July 9, 2021), 86 FR 37361 (July 15, 2021) (SR-EMERALD-2021-21); SR-EMERLAD-2021-32 (withdrawn without being noticed by the Commission); 93427 (October 26, 2021), 86 FR 60310 (November 1, 2021) (SR-EMERALD-2021-34); 93811 (December 17, 2021), 86 FR 73051 (December 23, 2021) (SR-EMERALD-2021-44); 94263 (February 15, 2022), 87 FR 9766 (February 22, 2022) (SR-EMERALD-2022-06); 94715 (April 14, 2022), 87 FR 23674 (April 20, 2022) (SR-EMERALD-2022-14); 94892 (May 11, 2022), 87 FR 29963 (May 17, 2022) (SR-EMERALD-2022-18).

baseline cost analysis used to justify the proposed fees was made in the Initial Proposal, the fees themselves have not changed since the Initial Proposal and the Exchange still proposes fees that are intended to cover the Exchange's cost of providing ToM and cToM, with a reasonable mark-up over those costs. The proposed fees are intended to cover the Exchange's cost of compiling and disseminating ToM and cToM with a reasonable mark-up over those costs, accounting for ongoing increases in expenses.<sup>5</sup> Before setting forth the additional details regarding the proposal as well as the updated Cost Analysis conducted by the Exchange, immediately below is a description of the proposed fees.

### **Proposed Market Data Pricing**

The Exchange offers ToM and cToM to subscribers. The Exchange notes that there is no requirement that any Member<sup>6</sup> or market participant subscribe to ToM or cToM or any other data feed offered by the Exchange. Instead, a Member may choose to maintain subscriptions to ToM or cToM based on their business model. The proposed fees will not apply differently based upon the size or type of firm, but rather based upon the subscriptions a firm has to ToM or cToM and their use thereof, which are based upon factors deemed relevant by each firm. The proposed pricing for ToM and cToM is set forth below.

### ***ToM***

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<sup>5</sup> For example, the New York Stock Exchange, Inc.'s ("NYSE") Secure Financial Transaction Infrastructure ("SFTI") network, which contributes to the Exchange's connectivity cost, increased its fees by approximately 9% since 2021. Similarly, since 2021, the Exchange, and its affiliates, experienced an increase in data center costs of approximately 17% and an increase in hardware and software costs of approximately 19%. These percentages are based on the Exchange's actual 2021 and proposed 2023 budgets.

<sup>6</sup> The term "Member" means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed "members" under the Exchange Act. See Exchange Rule 100.

ToM is an Exchange-only market data feed that contains top of book quotations based on options orders<sup>7</sup> and quotes<sup>8</sup> entered into the System<sup>9</sup> and resting on the Exchange's Simple Order Book<sup>10</sup> as well as administrative messages.<sup>11</sup> The Exchange currently charges Internal Distributors<sup>12</sup> \$1,250 per month and External Distributors \$1,750 per month for ToM. The Exchange does not currently charge, nor does it now propose to charge any additional fees based on a subscriber's use of the ToM and cToM data feeds, e.g., displayed versus non-displayed use, redistribution fees, or any individual per user fees. As discussed more fully below, the Exchange recently calculated its annual aggregate costs for producing ToM to subscribers to be \$317,753, or \$26,479 per month (rounded to the nearest dollar when dividing the annual cost by 12 months). The Exchange proposes to amend Section 6(a) of the Fee Schedule to now charge Internal Distributors \$2,000 per month and External Distributors \$3,000 per month for ToM in an effort to cover the Exchange's increasing costs with compiling and producing ToM to market participants as evidenced by the Exchange's Cost Analysis detailed below.

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<sup>7</sup> The term "order" means a firm commitment to buy or sell option contracts. See Exchange Rule 100.

<sup>8</sup> The term "quote" or "quotation" means a bid or offer entered by a Market Maker that is firm and may update the Market Maker's previous quote, if any. The Rules of the Exchange provide for the use of different types of quotes, including Standard quotes and eQuotes, as more fully described in Rule 517. A Market Maker may, at times, choose to have multiple types of quotes active in an individual option. See Exchange Rule 100.

<sup>9</sup> The term "System" means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

<sup>10</sup> The term "Simple Order Book" means "the Exchange's regular electronic book of orders and quotes." See Exchange Rule 518(a)(15).

<sup>11</sup> See Fee Schedule, Section 6(a).

<sup>12</sup> A "Distributor" of MIAX data is any entity that receives a feed or file of data either directly from MIAX or indirectly through another entity and then distributes it either internally (within that entity) or externally (outside that entity). All Distributors are required to execute a MIAX Distributor Agreement. See Fee Schedule, Section 6(a).

***cToM***

The Exchange previously adopted rules governing the trading of Complex Orders<sup>13</sup> on the MIAX Emerald System in 2018,<sup>14</sup> ahead of the Exchange's planned launch, which took place on March 1, 2019. Shortly thereafter, the Exchange adopted the market data product, cToM, and expressly waived fees for cToM to incentivize market participants to subscribe.<sup>15</sup> cToM was provided free of charge for four years and the Exchange absorbed all costs associated with compiling and disseminating cToM during that entire time. As discussed more fully below, the Exchange recently calculated its annual aggregate costs for producing cToM to subscribers to be \$347,543, or \$28,962 per month (rounded to the nearest dollar when dividing the annual cost by 12 months). The Exchange now proposes to amend Section 6(a) of the Fee Schedule to establish fees for cToM in order to recoup its ongoing costs going forward.

In summary, cToM provides subscribers with the same information as ToM as it relates to the Strategy Book,<sup>16</sup> *i.e.*, the Exchange's best bid and offer for a complex strategy, with aggregate size, based on displayable orders in the complex strategy on the Exchange. However, cToM provides subscribers with the following additional information that is not included in ToM: (i) the identification of the complex strategies currently trading on the Exchange; (ii)

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<sup>13</sup> See Exchange Rule 518(a)(5) for the definition of Complex Orders.

<sup>14</sup> See Securities Exchange Act Release Nos. 84891 (December 20, 2018), 83 FR 67421 (December 28, 2018) (In the Matter of the Application of MIAX EMERALD, LLC for Registration as a National Securities Exchange; Findings, Opinion, and Order of the Commission); and 85345 (March 18, 2019), 84 FR 10848 (March 22, 2019) (SR-EMERALD-2019-13) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Exchange Rule 518, Complex Orders).

<sup>15</sup> See Securities Exchange Act Release No. 85207 (February 27, 2019), 84 FR 7963 (March 5, 2019) (SR-EMERALD-2019-09) (providing a complete description of the cToM data feed).

<sup>16</sup> The "Strategy Book" is the Exchange's electronic book of complex orders and complex quotes. See Exchange Rule 518(a)(17).

complex strategy last sale information; and (iii) the status of securities underlying the complex strategy (e.g., halted, open, or resumed). cToM is therefore a distinct market data product from ToM in that it includes additional information that is not available to subscribers that receive only ToM. ToM subscribers are not required to subscribe to cToM, and cToM subscribers are not required to subscribe to ToM.

### ***cToM Proposed Fees***

The Exchange proposes to amend Section 6)a) of the Fee Schedule to charge Internal Distributors \$2,000 per month and External Distributors \$3,000 per month for the cToM data feed. The proposed fees are identical to the fees that the Exchange proposes to charge for ToM. The Exchange does not propose to adopt redistribution fees for the cToM data feed. However, the recipient of cToM data would be required to become a data subscriber and would be subject to the applicable data subscriber fees. The Exchange also does not propose to charge any additional fees based on a subscriber's use of the cToM data feed, e.g., displayed versus non-displayed use, and does not propose to impose any individual per user fees.

As it does today for ToM, the Exchange proposes to assess cToM fees to Internal and External Distributors in each month the Distributor is credentialed to use cToM in the production environment. Also, as the Exchange does today for ToM, market data fees for cToM will be reduced for new Distributors for the first month during which they subscribe to cToM, based on the number of trading days that have been held during the month prior to the date on which that subscriber has been credentialed to use cToM in the production environment. New cToM Distributors will be assessed a pro-rata percentage of the fees listed in the table in Section 6)a) of the Fee Schedule, which is the percentage of the number of trading days remaining in the affected calendar month as of the date on which they have been credentialed to use cToM in the

production environment, divided by the total number of trading days in the affected calendar month.

The Exchange also proposes to amend the paragraph below the table of fees for ToM and cToM in Section 6)a) of the Fee Schedule to make a minor, non-substantive correction by deleting the phrase “(as applicable)” in the first sentence following the table of fees for ToM and cToM. The purpose of this proposed change is to remove unnecessary text from the Fee Schedule.

***cToM Content is Available from Alternative Sources***

cToM is not the exclusive source for Complex Order information from the Exchange. It is a business decision of market participants whether to subscribe to cToM or not. Market participants that choose not to subscribe to cToM can derive much, if not all, of the same information from other Exchange sources, including, for example, the MIAX Emerald Order Feed (“MOR”).<sup>17</sup> The following cToM information is included in MOR: the Exchange’s best bid and offer for a complex strategy, with aggregate size, based on displayable orders in the complex strategy on the Exchange; the identification of the complex strategies currently trading on the Exchange; and the status of securities underlying the complex strategy (e.g., halted, open, or resumed). In addition to MOR, complex strategy last sale information can be derived from ToM. Specifically, market participants may deduce that last sale information for multiple trades

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<sup>17</sup> See MIAX website, Market Data & Offerings, available at <https://www.miaxoptions.com/market-data-offerings> (last visited December 20, 2022). In general, MOR provides real-time ultra-low latency updates on the following information: new Simple Orders added to the MIAX Emerald Order Book; updates to Simple Orders resting on the MIAX Emerald Order Book; new Complex Orders added to the Strategy Book (i.e., the book of Complex Orders); updates to Complex Orders resting on the Strategy Book; MIAX Emerald listed series updates; MIAX Emerald Complex Strategy definitions; the state of the MIAX Emerald System; and MIAX Emerald’s underlying trading state.

in related options series with the same timestamps disseminated via ToM are likely part of a Complex Order transaction and last sale.

### ***Additional Discussion – cToM Background***

In the six years since the Exchange adopted Complex Order functionality, the Exchange has grown its monthly complex market share from 0% to 3.03% of the total electronic complex non-index volume executed on exchanges offering electronic complex functionality for the month of November 2022.<sup>18</sup> During that same period, the Exchange has had a steady increase in the number of cToM subscribers. Until the Exchange initially filed to adopt cToM fees in July of 2021, the Exchange did not charge fees for cToM data provided by the Exchange.

The objective of this approach was to eliminate any fee-based barriers for Members when the Exchange launched with Complex Order functionality in 2019, which the Exchange believes has been helpful in its ability to attract order flow as a new exchange. As discussed more fully below, the Exchange recently calculated its annual aggregate costs for providing cToM at approximately \$347,543. In order to establish fees that are designed to recover the aggregate costs of providing cToM plus a reasonable mark-up, the Exchange is proposing to modify its Fee Schedule, as described above. In addition to the Cost Analysis, described below, the Exchange believes that its proposed approach to market data fees is reasonable based on a comparison to competitors.

### **Additional Discussion – Comparison with Other Exchanges**

#### ***ToM***

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<sup>18</sup> The Exchange notes that it receives complex market data for all U.S. options exchanges that offer complex functionality from direct feeds from The Options Price Reporting Authority (“OPRA”).

The proposed fees for ToM are comparable to the fees currently in place for the options exchanges, particularly Nasdaq ISE, LLC (“ISE”).<sup>19</sup> In November 2022, the Exchange had 3.11% market share of equity options volume; for that same month, ISE had 6.19% market share of equity options volume.<sup>20</sup> The Exchange’s proposed fees for ToM are equal to, and for Internal Distributors, lower than, the rates data recipients pay for comparable data feeds from ISE. The Exchange notes that other competitors maintain fees applicable to market data that are considerably higher than those proposed by the Exchange, including NYSE Arca, Inc. (“NYSE Arca”).<sup>21</sup> However, the Exchange has focused its comparison on ISE because it is the closest market in terms of market share and offers market data at prices lower than several other incumbent exchanges. The fees for the Nasdaq ISE Top Quote Feed, which like ToM, includes top of book, trades, and security status messages, consists of an internal distributor access fee of \$3,000 per month (50% higher than the Exchange’s proposed rate), and an external distributor

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<sup>19</sup> See ISE Options 7 Pricing Schedule, Section 10, H., available at <https://listingcenter.nasdaq.com/rulebook/ise/rules/ISE%20Options%207> (assessing Professional internal and external distributors \$3,000 per month, plus \$20 per month per controlled device for ISE’s Top Quote Feed).

<sup>20</sup> See Market at a Glance, U.S. Options Market Volume Summary, available at <https://www.miaxoptions.com/> (last visited December 20, 2022).

<sup>21</sup> Fees for the NYSE Arca Options Top Feed, which is the comparable product to ToM, are \$3,000 per month for access (internal use) and an additional \$2,000 per month for redistribution (external distribution), compared to the Exchange’s proposed fees of \$2,000 and \$3,000 for Internal and External Distributors, respectively. In addition, for its NYSE Arca Options Top Feed, NYSE Arca charges for three different categories of non-display usage, and user fees, both of which the Exchange does not propose to charge, causing the overall cost of NYSE Arca Options Top Feed to far exceed the Exchange’s proposed rates. See NYSE Arca Options Proprietary Market Data Fees, available at: [https://www.nyse.com/publicdocs/nyse/data/NYSE\\_Arca\\_Options\\_Proprietary\\_Data\\_Fee\\_Schedule.pdf](https://www.nyse.com/publicdocs/nyse/data/NYSE_Arca_Options_Proprietary_Data_Fee_Schedule.pdf).

access fee of \$3,000 per month (equal to the Exchange’s proposed rate).<sup>22</sup> ISE’s overall charge to receive the Nasdaq ISE Top Quote Feed may be even higher than the Exchange’s proposed rates because ISE charges additional per controlled device fees that can cause the distribution fee to reach up to \$5,000 per month.<sup>23</sup> The Exchange’s proposed rates do not include additional fees.

### *cToM*

The proposed fees for cToM are comparable to the fees currently in place for competing options exchanges, particularly NYSE American, LLC (“NYSE American”).<sup>24</sup> As noted above, for the month of November 2022, the Exchange had 3.11% of the total equity options market share and 3.03% of the total electronic complex non-index volume executed on exchanges offering electronic complex functionality. For that same month, NYSE American had 6.93% of the total equity options market share and 6.35% of the total electronic complex non-index volume.<sup>25</sup> The Exchange proposes fees for cToM that are comparable to the rates data recipients pay for comparable data feeds from NYSE American. The Exchange has focused its comparison on NYSE American because it is the closest market in terms of market share. The fees for the NYSE American Options Complex, which, like cToM, includes top of book, trades, and security status messages for complex orders, consists of an internal distributor access fee of \$1,500 per month (slightly lower than the Exchange’s proposed rate), and an external distributor access fee

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<sup>22</sup> See supra note 19.

<sup>23</sup> Id.

<sup>24</sup> See NYSE American Options Proprietary Market Data Fees, available at [https://www.nyse.com/publicdocs/nyse/data/NYSE\\_American\\_Options\\_Market\\_Data\\_Fee\\_Schedule.pdf](https://www.nyse.com/publicdocs/nyse/data/NYSE_American_Options_Market_Data_Fee_Schedule.pdf).

<sup>25</sup> See supra note 20.

of \$1,000 per month (resulting in a total external distribution fee of \$2,500 per month).<sup>26</sup>

However, NYSE American's overall charge to receive NYSE American Options Complex data may be even higher than the Exchange's proposed rates because NYSE American charges additional non-displayed usage fees (each are \$1,000 per month and a subscriber may pay multiple non-displayed usage fees), per user fees (\$20 per month for professional users and \$1.00 per month for non-professional users), and multiple data feed fees (\$200 per month), all of which the Exchange does not propose to charge. These additional charges by NYSE American can cause the total cost to receive NYSE American Complex data to far exceed the rates that the Exchange proposes to charge.

#### **Additional Discussion – Cost Analysis**

In general, the Exchange believes that exchanges, in setting fees of all types, should meet high standards of transparency to demonstrate why each new fee or fee increase meets the Exchange Act requirements that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among members and markets. In particular, the Exchange believes that each exchange should take extra care to be able to demonstrate that these fees are based on its costs and reasonable business needs.

Accordingly, in proposing to charge fees for market data, the Exchange is especially diligent in assessing those fees in a transparent way against its own aggregate costs of providing the related service, and in carefully and transparently assessing the impact on Members – both generally and in relation to other Members – to ensure the fees will not create a financial burden on any participant and will not have an undue impact in particular on smaller Members and competition among Members in general. The Exchange does not believe it needs to otherwise

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<sup>26</sup>

Id.

address questions about market competition in the context of this filing because the proposed fees are so clearly consistent with the Act based on its Cost Analysis. The Exchange also believes that this level of diligence and transparency is called for by the requirements of Section 19(b)(1) under the Act,<sup>27</sup> and Rule 19b-4 thereunder,<sup>28</sup> with respect to the types of information self-regulatory organizations (“SROs”) should provide when filing fee changes, and Section 6(b) of the Act,<sup>29</sup> which requires, among other things, that exchange fees be reasonable and equitably allocated,<sup>30</sup> not designed to permit unfair discrimination,<sup>31</sup> and that they not impose a burden on competition not necessary or appropriate in furtherance of the purposes of the Act.<sup>32</sup> This rule change proposal addresses those requirements, and the analysis and data in this section are designed to clearly and comprehensively show how they are met.<sup>33</sup>

As noted above, the Exchange has conducted and recently updated a study of its aggregate costs to produce the ToM and cToM data feeds – the Cost Analysis.<sup>34</sup> The Cost

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<sup>27</sup> 15 U.S.C. 78s(b)(1).

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

<sup>29</sup> 15 U.S.C. 78f(b).

<sup>30</sup> 15 U.S.C. 78f(b)(4).

<sup>31</sup> 15 U.S.C. 78f(b)(5).

<sup>32</sup> 15 U.S.C. 78f(b)(8).

<sup>33</sup> In 2019, Commission staff published guidance suggesting the types of information that SROs may use to demonstrate that their fee filings comply with the standards of the Exchange Act (“Fee Guidance”). While the Exchange understands that the Fee Guidance does not create new legal obligations on SROs, the Fee Guidance is consistent with the Exchange’s view about the type and level of transparency that exchanges should meet to demonstrate compliance with their existing obligations when they seek to charge new fees. See Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019) available at <https://www.sec.gov/tm/staff-guidancesro-rule-filings-fees>.

<sup>34</sup> The Exchange notes that its Cost Analysis is based on that conducted by MEMX, LLC (“MEMX”). See Securities Exchange Act Release Nos. 95936 (September 27, 2022), 87 FR 59845 (October 3, 2022) (SR-MEMX-2022-26); and 96430 (December 1, 2022), 87 FR 75083 (December 7, 2022) (SR-MEMX-2022-32). The Exchange notes that the

Analysis required a detailed analysis of the Exchange’s aggregate baseline costs, including a determination and allocation of costs for core services provided by the Exchange – transactions, market data, membership services, physical connectivity, and ports (which provide order entry, cancellation and modification functionality, risk functionality, ability to receive drop copies, and other functionality). The Exchange separately divided its costs between those costs necessary to deliver each of these core services, including infrastructure, software, human resources (i.e., personnel), and certain general and administrative expenses (collectively, “cost drivers”).

As an initial step, the Exchange determined the total cost for the Exchange and the affiliated markets. That total cost was then divided among the Exchange and each of its affiliated markets based on a number of factors, including server counts, additional hardware and software utilization, current or anticipated functional or non-functional development projects, capacity needs, end-of-life or end-of-service intervals, number of members, market model (e.g., price time or pro-rata), which may impact message traffic, individual system architectures that impact platform size,<sup>35</sup> storage needs, dedicated infrastructure versus shared infrastructure allocated per platform based on the resources required to support each platform, number of available connections, and employees allocated time. This will result in different allocation percentages among the Exchange and its affiliated markets. Meanwhile this allocation methodology ensures that no portion of any cost was allocated twice or double-counted between the Exchange and its affiliated markets.

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percentage allocations and cost levels are based on the Exchange’s 2023 estimated budget and may differ from those provided by MEMX for a number of reasons, including the Exchange’s ability to allocate costs among multiple exchanges while MEMX allocates cost to a single exchange.

<sup>35</sup> For example, the Exchange maintains 12 matching engines, MIAX Pearl Options maintains 12 matching engines, MIAX Pearl Equities maintains 24 matching engines, and MIAX maintains 24 matching engines.

Next, the Exchange adopted an allocation methodology with thoughtful and consistently principles to guide how much of a particular cost amount allocated to the Exchange pursuant to the above methodology should be allocated within the Exchange to each core service. For instance, fixed costs that are not driven by client activity (e.g., message rates), such as data center costs, were allocated more heavily to the provision of physical connectivity (61.9% of total expense amount allocated), with smaller allocations to additional Limited Service MEI Ports (8.8%), and the remainder to the provision of membership services, transaction execution and market data services (29.3%). This next level of the allocation methodology at the individual exchange level also took into account a number of factors similar to those set forth under the first allocation methodology described above, to determine the appropriate allocation to connectivity or market data versus what is to be allocated to providing other services. The allocation methodology was developed through an assessment of costs with senior management intimately familiar with each area of the Exchange's operations. After adopting this allocation methodology, the Exchange then applied an estimated allocation of each Cost Driver to each core service, resulting in the cost allocations described below. Each of the below cost allocations is unique to the Exchange and represents a percentage of overall cost that was allocated to the Exchange pursuant to the initial allocation described above.

By allocating segmented costs to each core service, the Exchange was able to estimate by core service the potential margin it might earn based on different fee models. The Exchange notes that as a non-listing venue it has five primary sources of revenue that it can potentially use to fund its operations: transaction, access, membership, regulatory, and market data fees. Accordingly, the Exchange generally must cover its expenses from these four primary sources of revenue. The Exchange also notes that as a general matter each of these sources of revenue is

based on services that are interdependent. For instance, the Exchange's system for executing transactions is dependent on physical hardware and connectivity; only Members and parties that they sponsor to participate directly on the Exchange may submit orders to the Exchange; many Members (but not all) consume market data from the Exchange in order to trade on the Exchange; and, the Exchange consumes market data from external sources in order to comply with regulatory obligations. Accordingly, given this interdependence, the allocation of costs to each service or revenue source required judgment of the Exchange and was weighted based on estimates of the Exchange that the Exchange believes are reasonable, as set forth below. While there is no standardized and generally accepted methodology for the allocation of an exchange's costs, the Exchange's methodology is the result of an extensive review and analysis and will be consistently applied going forward for any other potential fee proposals. In the absence of the Commission attempting to specify a methodology for the allocation of exchanges' interdependent costs, the Exchange will continue to be left with its best efforts to attempt to conduct such an allocation in a thoughtful and reasonable manner.

Through the Exchange's extensive Cost Analysis, which was again recently updated to focus solely on the provision of ToM and cToM data feeds, the Exchange analyzed nearly every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the provision of ToM and cToM data feeds, and, if such expense did so relate, what portion (or percentage) of such expense actually supports the provision of ToM and cToM data feeds, and thus bears a relationship that is, "in nature and closeness," directly related to ToM and cToM data feeds. Based on its analysis, the Exchange calculated its aggregate annual costs for providing the ToM and cToM data feeds to be \$665,296. This results in an estimated monthly cost for providing ToM and cToM data feeds of \$55,441 (rounded to the nearest dollar when

dividing the aggregate annual cost by 12 months). In order to cover operating costs and earn a reasonable profit on its market data, the Exchange has determined it necessary to charge fees for its proprietary data products, and, as such, the Exchange is proposing to modify its Fee Schedule, as set forth above. With the proposed fee changes, the Exchange anticipates annual revenue for ToM and cToM to be \$804,000 (or \$67,000 per month combined).

### ***Costs Related to Offering ToM and cToM Data Feeds***

The following chart details the individual line-item (annual) costs considered by the Exchange to be related to offering the ToM and cToM data feeds to its Members and other customers, as well as the percentage of the Exchange's overall costs that such costs represent for such area (e.g., as set forth below, the Exchange allocated approximately 2.8% of its overall Human Resources cost to offering ToM and cToM data feeds).

<b>COST DRIVERS</b>	<b>COSTS</b>	<b>% OF ALL</b>
Human Resources	\$354,553	2.8%
Network Infrastructure (fiber connectivity)	\$9,428	1.7%
Data Center	\$20,630	1.7%
Hardware and Software Maintenance & Licenses	\$22,202	1.7%
Depreciation	\$21,167	0.7%
Allocated Shared Expenses	\$237,316	3.0%
<b>TOTAL</b>	<b>\$665,296</b>	<b>2.5%</b>

### ***Human Resources***

For personnel costs (Human Resources), the Exchange calculated an allocation of employee time for employees whose functions include directly providing services necessary to offer the ToM and cToM data feeds, including performance thereof, as well as personnel with ancillary functions related to establishing and providing such services (such as information security and finance personnel). The Exchange notes that it and its affiliated markets have approximately 184 employees (excluding employees at non-options exchange subsidiaries of

Miami International Holdings, Inc. (“MIH”), the holding company of the Exchange and its affiliates, MIAX Pearl and MIAX), and each department leader has direct knowledge of the time spent by each employee with respect to the various tasks necessary to operate the Exchange. Specifically, twice a year and as needed with additional new hires and new project initiatives, in consultation with employees as needed, managers and department heads assign a percentage of time to every employee and then allocate that time amongst the Exchange and its affiliated markets to determine that market’s individual Human Resources expense. Then, again managers and department heads assign a percentage of each employee’s time allocated to the Exchange into buckets including network connectivity, ports, market data, and other exchange services. This process ensures that every employee is 100% allocated, ensuring there is no double counting between the Exchange and its affiliated markets.

The estimates of Human Resources cost were therefore determined by consulting with such department leaders, determining which employees are involved in tasks related to providing the ToM and cToM data feeds, and confirming that the proposed allocations were reasonable based on an understanding of the percentage of their time such employees devote to tasks related to providing the ToM and cToM data feeds. The Exchange notes that senior level executives were allocated Human Resources costs to the extent the Exchange believed they are involved in overseeing tasks related to providing the ToM and cToM data feeds. The Exchange’s cost allocation for employees who perform work in support of generating and disseminating the ToM and cToM data feeds arrive at a full time equivalent (“FTE”) of 1.2 FTEs. The Human Resources cost was calculated using a blended rate of compensation reflecting salary, equity and bonus compensation, benefits, payroll taxes, and 401(k) matching contributions.

### *Network Infrastructure*

The Network Infrastructure cost includes cabling and switches required to generate and disseminate the ToM and cToM data feeds. The Network Infrastructure cost was narrowly estimated by focusing on the servers used at the Exchange's primary and back-up data centers specifically for the ToM and cToM data feeds. Further, as certain servers are only partially utilized to generate and disseminate the ToM and cToM data feeds, only the percentage of such servers devoted to generating and disseminating the ToM and cToM data feeds was included (i.e., the capacity of such servers allocated to the ToM and cToM data feeds).<sup>36</sup>

### ***Data Center***

The Exchange does not own the primary data center or the secondary data center, but instead leases space in data centers operated by third parties where the Exchange houses servers, switches and related equipment. Data Center costs include an allocation of the costs the Exchange incurs to provide the ToM and cToM data feeds in the third-party data centers where the Exchange maintains its equipment, as well as related costs. As the Data Center costs are primarily for space, power, and cooling of servers, the Exchange allocated 1.7% to the applicable Data Center costs for the ToM and cToM data feeds. The Exchange believes it is reasonable to apply the same proportionate percentage of Data Center costs to that of Network Infrastructure.

### ***Hardware and Software Maintenance and Licenses***

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<sup>36</sup> The Exchange understands that the Investors Exchange, Inc. ("IEX") and MEMX both allocated a percentage of their servers to the production and dissemination of market data to support proposed market data fees. See Securities Exchange Act Release No. 94630 (April 7, 2022), 87 FR 21945, at page 21949 (April 13, 2022) (SR-IEX-2022-02). See also supra note 34. The Exchange does not have insight into either MEMX's or IEX's technology infrastructure or what their determinations were based on. However, the Exchange reviewed its own technology infrastructure and believes based on its design, it is more appropriate for the Exchange to allocate a portion of its network infrastructure cost to market data based on a percentage of overall cost, not on a per server basis.

Hardware and Software Maintenance and Licenses includes those licenses used to operate and monitor physical assets necessary to offer the ToM and cToM data feeds. Because the hardware and software license fees are correlated to the servers used by the Exchange, the Exchange again applied an allocation of 1.7% of its costs for Hardware and Software Maintenance and Licenses to the ToM and cToM data feeds.<sup>37</sup>

### ***Monthly Depreciation***

The vast majority of the hardware and software the Exchange uses with respect to its operations, including the software used to generate and disseminate the ToM and cToM data feeds has been developed in-house and the cost of such development is depreciated over time. Accordingly, the Exchange included Depreciation costs related to depreciated hardware and software used to generate and disseminate the ToM and cToM data feeds. The Exchange also included in the Depreciation costs certain budgeted improvements that the Exchange intends to capitalize and depreciate with respect to the ToM and cToM data feeds in the near-term. As with the other allocated costs in the Exchange's updated Cost Analysis, the Depreciation cost was therefore narrowly tailored to depreciation related to the ToM and cToM data feeds. The Exchange also notes that this allocation differs from its affiliated markets due to a number of factors, such as the age of physical assets and software (e.g., older physical assets and software were previously depreciated and removed from the allocation), or certain system enhancements that required new physical assets and software, thus providing a higher contribution to the depreciated cost.

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<sup>37</sup> This expense may be less than the Exchange's affiliated markets, specifically MIAX Pearl, because, unlike the Exchange, MIAX Pearl (the options and equities markets) maintains an additional gateway to accommodate its member's access and connectivity needs. This added gateway contributes to the difference in allocations between the Exchange and MIAX Pearl.

### *Allocated Shared Expenses*

Finally, certain general shared expenses were allocated to the ToM and cToM data feeds. However, contrary to its prior cost analysis, rather than taking the whole amount of general shared expenses and applying an allocated percentage, the Exchange has narrowly selected specific general shared expenses relevant to the cToM data feed. The costs included in general shared expenses allocated to the ToM and cToM data feeds include office space and office expenses (e.g., occupancy and overhead expenses), utilities, recruiting and training, marketing and advertising costs, professional fees for legal, tax and accounting services (including external and internal audit expenses), and telecommunications costs. The cost of paying individuals to serve on the Exchange's Board of Directors or any committee was not allocated to providing ToM and cToM data feeds.

### *Cost Analysis – Additional Discussion*

In conducting its Cost Analysis, the Exchange did not allocate any of its expenses in full to any core service and did not double-count any expenses. Instead, as described above, the Exchange identified and allocated applicable Cost Drivers across its core services and used the same approach to analyzing costs to form the basis of separate proposals to amend fees for connectivity and port services<sup>38</sup> and this filing proposing fees for ToM and cToM. Thus, the Exchange's allocations of cost across core services were based on real costs of operating the Exchange and were not double-counted across the core services or their associated revenue streams. The proposed fees for ToM and cToM data feeds are designed to permit the Exchange

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<sup>38</sup> See MIAX Exchange Group Alert, "MIAX Options, Pearl Options and Emerald Options Exchanges – January 1, 2023 Non-Transaction Fee Changes," issued December 9, 2022, available at <https://www.miaxoptions.com/alerts/2022/12/09/miax-options-pearl-options-and-emerald-options-exchanges-january-1-2023-non-0>.

to cover the costs allocated to providing cToM data with a mark-up that the Exchange believes is modest (approximately 17%, which will decrease over time<sup>39</sup>), which the Exchange believes is fair and reasonable after taking into account the costs related to creating, generating, and disseminating the ToM and cToM data feeds and the fact that the Exchange will need to fund future expenditures (increased costs, improvements, etc.). The Exchange also reiterates that prior to July of 2021, the month in which it first proposed to adopt fees for cToM, the Exchange has not previously charged any fees for cToM and its allocation of costs to cToM was part of a holistic allocation that also allocated costs to other core services without double-counting any expenses.

The Exchange is owned by a holding company that is the parent company of four exchange markets and, therefore, the Exchange and its affiliated markets must allocate shared costs across all of those markets accordingly, pursuant to the above-described allocation methodology. In contrast, the Investors Exchange LLC (“IEX”) and MEMX, which are currently each operating only one exchange, in their recent non-transaction fee filings can allocate the entire amount of that same cost to a single exchange. This can result in lower profit margins for the non-transaction fees proposed by IEX and MEMX because the single allocated cost does not experience the efficiencies and synergies associated with shared costs across multiple platforms.<sup>40</sup> The Exchange and its affiliated markets must share a single cost, which

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<sup>39</sup> Assuming the U.S. inflation rate continues at its current rate, the projected profit margins in this proposal will decrease and may reach single to negative digit levels in approximately 18 to 24 months. See, e.g., <https://www.usinflationcalculator.com/inflation/current-inflation-rates/> (last visited February 15, 2023).

<sup>40</sup> The Exchange acknowledges that IEX included in its proposal to adopt market data fees after offering market data for free an analysis of what its projected revenue would be if all of its existing customers continued to subscribe versus what its projected revenue

results in cost efficiencies that cause a broader gap between the allocated cost amount and projected revenue, even though the fee levels being proposed are lower or similar to competing markets (as described above). To the extent that the application of a cost-based standard results in Commission Staff making determinations as to the appropriateness of certain profit margins, the Commission Staff must consider whether the proposed fee level is comparable to, or on parity with, the same fee charged by competing exchanges and how different cost allocation methodologies (such as across multiple markets) may result in different profit margins for comparable fee levels. If it is the case that the Commission Staff is making determinations as to appropriate profit margins, the Exchange believes that Staff should be clear to all market participants as to what they determine is an appropriate profit margin and should apply such determinations consistently and, in the case of certain legacy exchanges, retroactively, if such standards are to avoid having a discriminatory effect.

Further, the proposal reflects the Exchange's efforts to control its costs, which the Exchange does on an ongoing basis as a matter of good business practice. A potential profit margin should not be judged alone based on its size, but is also indicative of costs management and whether the ultimate fee reflects the value of the services provided. For example, a profit margin on one exchange should not be deemed excessive where that exchange has been successful in controlling its costs, but not excessive where on another exchange where that exchange is charging comparable fees but has a lower profit margin due to higher costs. Doing

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would be if a limited number of customers subscribed due to the new fees. See Securities Exchange Act Release No. 94630 (April 7, 2022), 87 FR 21945 (April 13, 2022) (SR-IEX-2022-02). MEMX did not include a similar analysis in either of its recent non-transaction fee proposals. See, e.g., supra note 34. The Exchange does not believe a similar analysis would be useful here because it is amending existing fees, not proposing to charge a new fee where existing subscribers may terminate connections because they are no longer enjoying the service at no cost.

so could have the perverse effect of not incentivizing cost control where higher costs alone could be used to justify fees increases.

Accordingly, while the Exchange believes in transparency around costs and potential margins, as well as periodic review of revenues and applicable costs (as discussed below), the Exchange does not believe that these estimates should form the sole basis of whether or not a proposed fee is reasonable or can be adopted. Instead, the Exchange believes that the information should be used solely to confirm that an Exchange is not earning supra-competitive profits, and the Exchange believes the Cost Analysis and related projections demonstrate this fact.

The Exchange notes that the Cost Analysis is based on the Exchange's 2023 fiscal year of operations and projections. It is possible, however, that such costs will either decrease or increase. To the extent the Exchange sees growth in use of ToM and cToM data feeds it will receive additional revenue to offset future cost increases. However, if use of ToM and cToM data feeds is static or decreases, the Exchange might not realize the revenue that it anticipates or needs in order to cover applicable costs. Accordingly, the Exchange is committing to conduct a one-year review after implementation of these fees. The Exchange expects that it may propose to adjust fees at that time, to increase fees in the event that revenues fail to cover costs and a reasonable mark-up of such costs.

Similarly, the Exchange expects that it would propose to decrease fees in the event that revenue materially exceeds current projections. In addition, the Exchange will periodically conduct a review to inform its decision making on whether a fee change is appropriate (e.g., to monitor for costs increasing/decreasing or subscribers increasing/decreasing, etc. in ways that suggest the then-current fees are becoming dislocated from the prior cost-based analysis) and expects that it would propose to increase fees in the event that revenues fail to cover its costs and

a reasonable mark-up, or decrease fees in the event that revenue or the mark-up materially exceeds current projections. In the event that the Exchange determines to propose a fee change, the results of a timely review, including an updated cost estimate, will be included in the rule filing proposing the fee change. More generally, the Exchange believes that it is appropriate for an exchange to refresh and update information about its relevant costs and revenues in seeking any future changes to fees, and the Exchange commits to do so.

### **Implementation**

The proposed rule changes will be immediately effective.

#### **b. Statutory Basis**

The Exchange believes that the proposed rule change is consistent with the provisions of Section 6(b)<sup>41</sup> of the Act in general, and furthers the objectives of Section 6(b)(4)<sup>42</sup> of the Act, in particular, in that it is designed to provide for the equitable allocation of reasonable dues, fees and other charges among its Members and other persons using its facilities. Additionally, the Exchange believes that the proposed fees are consistent with the objectives of Section 6(b)(5)<sup>43</sup> of the Act in that they are designed 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 a free and open market and national market system, and, in general, to protect investors and the public interest, and, particularly, are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

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<sup>41</sup> 15 U.S.C. 78f.

<sup>42</sup> 15 U.S.C. 78f(b)(4).

<sup>43</sup> 15 U.S.C. 78f(b)(5).

The Exchange notes prior to addressing the specific reasons the Exchange believes the proposed fees and fee structure are reasonable, equitably allocated and not unreasonably discriminatory, that the proposed fees are consistent with the fee amounts charged by competing U.S. securities exchanges. For this reason, the Exchange believes that the proposed fees are consistent with the Act generally, and Section 6(b)(5)<sup>44</sup> of the Act in particular.

As noted above, in the four years since the Exchange launched operations with Complex Order functionality, the Exchange has grown its monthly complex market share from 0% to 3.03% of the total electronic complex non-index volume executed on U.S. options exchanges offering complex functionality for the month of November 2022.<sup>45</sup> One of the primary objectives of the Exchange is to provide competition and to reduce fixed costs imposed upon the industry. Consistent with this objective, the Exchange believes that this proposal reflects a simple, competitive, reasonable, and equitable pricing structure.

### **Reasonableness**

*Overall.* With regard to reasonableness, the Exchange understands that the Commission has traditionally taken a market-based approach to examine whether the SRO making the fee proposal was subject to significant competitive forces in setting the terms of the proposal. The Exchange understands that in general the analysis considers whether the SRO has demonstrated in its filing that (i) there are reasonable substitutes for the product or service; (ii) “platform” competition constrains the ability to set the fee; and/or (iii) revenue and cost analysis shows the fee would not result in the SRO taking supra-competitive profits. If the SRO demonstrates that the fee is subject to significant competitive forces, the Exchange understands that in general the

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<sup>44</sup> 15 U.S.C. 78f(b)(5).

<sup>45</sup> See supra note 20.

analysis will next consider whether there is any substantial countervailing basis to suggest the fee's terms fail to meet one or more standards under the Exchange Act. The Exchange further understands that if the filing fails to demonstrate that the fee is constrained by competitive forces, the SRO must provide a substantial basis, other than competition, to show that it is consistent with the Exchange Act, which may include production of relevant revenue and cost data pertaining to the product or service.

The Exchange has not determined its proposed overall market data fees based on assumptions about market competition, instead relying upon a cost-plus model to determine a reasonable fee structure that is informed by the Exchange's understanding of different uses of the products by different types of participants. In this context, the Exchange believes the proposed fees overall are fair and reasonable as a form of cost recovery plus the possibility of a reasonable return for the Exchange's aggregate costs of offering the ToM and cToM data feeds. The Exchange believes the proposed fees are reasonable because they are designed to generate annual revenue to recoup some or all of Exchange's annual costs of providing ToM and cToM data with a reasonable mark-up. As discussed in the Purpose section, the Exchange estimates this fee filing will result in annual revenue of approximately \$804,000, representing a potential mark-up of just 17% over the cost of providing ToM and cToM data. Accordingly, the Exchange believes that this fee methodology is reasonable because it allows the Exchange to recoup some or all of its expenses for providing the ToM and cToM data products (with any additional revenue representing no more than what the Exchange believes to be a reasonable rate of return). The Exchange also believes that the proposed fees are reasonable because they are generally less than the fees charged by competing options exchanges for comparable market data products, notwithstanding that the competing exchanges may have different system architectures that may result in different cost structures for the provision of market data.

The Exchange believes the proposed fees for the ToM and cToM data feeds are reasonable when compared to fees for comparable products, compared to which the Exchange's proposed fees are generally lower, as well as other comparable data feeds priced significantly higher than the Exchange's proposed fees for the ToM and cToM data feeds.<sup>46</sup>

*Internal Distribution Fees.* The Exchange believes that it is reasonable to charge fees to access the ToM and cToM data feeds for Internal Distribution because of the value of such data to subscribers in their profit-generating activities. The Exchange also believes that the proposed monthly Internal Distribution fee for cToM is reasonable as it is similar to the amount charged by at least one other exchange of comparable size for comparable data products, and lower than the fees charged by other exchange for comparable data products.<sup>47</sup>

*External Distribution Fees.* The Exchange believes that it is reasonable to charge External Distribution fees for the ToM and cToM data feeds because vendors receive value from redistributing the data in their business products provided to their customers. The Exchange believes that charging External Distribution fees is reasonable because the vendors that would be charged such fees profit by re-transmitting the Exchange's market data to their customers. These fees would be charged only once per month to each vendor account that redistributes any ToM and cToM data feeds, regardless of the number of customers to which that vendor redistributes the data.

For all of the foregoing reasons, the Exchange believes that the proposed fees for the ToM and cToM data feeds are reasonable.

### **Equitable Allocation**

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<sup>46</sup> See supra notes 19, 21, and 24, and accompanying text.

<sup>47</sup> See, e.g., supra notes 19, 21, and 24.

Overall. The Exchange believes that its proposed fees are reasonable, fair, and equitable, and not unfairly discriminatory because they are designed to align fees with services provided. The Exchange believes the proposed fees for the ToM and cToM data feeds are allocated fairly and equitably among the various categories of users of the feeds, and any differences among categories of users are justified and appropriate.

The Exchange believes that the proposed fees are equitably allocated because they will apply uniformly to all data recipients that choose to subscribe to the ToM and cToM data feeds. Any subscriber or vendor that chooses to subscribe to the ToM and cToM data feeds is subject to the same Fee Schedule, regardless of what type of business they operate, and the decision to subscribe to one or more ToM and cToM data feeds is based on objective differences in usage of ToM and cToM data feeds among different Members, which are still ultimately in the control of any particular Member. The Exchange believes the proposed pricing of the ToM and cToM data feeds is equitably allocated because it is based, in part, upon the amount of information contained in each data feed and the value of that information to market participants.

Internal Distribution Fees. The Exchange believes the proposed monthly fees for Internal Distribution of the ToM and cToM data feeds are equitably allocated because they would be charged on an equal basis to all data recipients that receive the ToM and cToM data feeds for internal distribution, regardless of what type of business they operate.

External Distribution Fees. The Exchange believes the proposed monthly fees for External Distribution of the ToM and cToM data feeds are equitably allocated because they would be charged on an equal basis to all data recipients that receive the ToM and cToM data feeds that choose to redistribute the feeds externally, regardless of what business they operate. The Exchange also believes that the proposed monthly fees for External Distribution are

equitably allocated when compared to lower proposed fees for Internal Distribution because data recipients that are externally distributing ToM and cToM data feeds are able to monetize such distribution and spread such costs amongst multiple third party data recipients, whereas the Internal Distribution fee is applicable to use by a single data recipient (and its affiliates).

The Exchange believes that it is reasonable, equitable and not unfairly discriminatory to assess Internal Distributors fees that are less than the fees assessed for External Distributors for subscriptions to the ToM and cToM data feeds because Internal Distributors have limited, restricted usage rights to the market data, as compared to External Distributors, which have more expansive usage rights. All Members and non-Members that decide to receive any market data feed of the Exchange (or its affiliates, MIAX Pearl and MIAX), must first execute, among other things, the MIAX Exchange Group Exchange Data Agreement (the “Exchange Data Agreement”).<sup>48</sup> Pursuant to the Exchange Data Agreement, Internal Distributors are restricted to the “internal use” of any market data they receive. This means that Internal Distributors may only distribute the Exchange’s market data to the recipient’s officers and employees and its affiliates.<sup>49</sup> External Distributors may distribute the Exchange’s market data to persons who are not officers, employees or affiliates of the External Distributor,<sup>50</sup> and may charge their own fees for the redistribution of such market data. External Distributors may monetize their receipt of the ToM and cToM data feeds by charging their customers fees for receipt of the Exchange’s cToM data. Internal Distributors do not have the same ability to monetize the Exchange’s ToM

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<sup>48</sup> See Exchange Data Agreement, available at [https://miaxweb2.pairsite.com/sites/default/files/page-files/MIAX\\_Exchange\\_Group\\_Data\\_Agreement\\_09032020.pdf](https://miaxweb2.pairsite.com/sites/default/files/page-files/MIAX_Exchange_Group_Data_Agreement_09032020.pdf).

<sup>49</sup> See *id.*

<sup>50</sup> See *id.*

and cToM data feeds. Accordingly, the Exchange believes it is fair, reasonable and not unfairly discriminatory to assess External Distributors a higher fee for the Exchange's ToM and cToM data feeds as External Distributors have greater usage rights to commercialize such market data and can adjust their own fee structures if necessary.

The Exchange also utilizes more resources to support External Distributors versus Internal Distributors, as External Distributors have reporting and monitoring obligations that Internal Distributors do not have, thus requiring additional time and effort of Exchange staff. For example, External Distributors have monthly reporting requirements under the Exchange's Market Data Policies.<sup>51</sup> Exchange staff must then, in turn, process and review information reported by External Distributors to ensure the External Distributors are redistributing cToM data in compliance with the Exchange's Market Data Agreement and Policies.

The Exchange believes the proposed cToM fees are equitable and not unfairly discriminatory because the fee level results in a reasonable and equitable allocation of fees amongst subscribers for similar services, depending on whether the subscriber is an Internal or External Distributor. Moreover, the decision as to whether or not to purchase market data is entirely optional to all market participants. Potential purchasers are not required to purchase the market data, and the Exchange is not required to make the market data available. Purchasers may request the data at any time or may decline to purchase such data. The allocation of fees among users is fair and reasonable because, if market participants decide not to subscribe to the data feed, firms can discontinue their use of the cToM data.

For all of the foregoing reasons, the Exchange believes that the proposed fees for the

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<sup>51</sup> See Section 6 of the Exchange's Market Data Policies, available at [https://www.miaxoptions.com/sites/default/files/page-files/MIAX\\_Exchange\\_Group\\_Market\\_Data\\_Policies\\_07202021.pdf](https://www.miaxoptions.com/sites/default/files/page-files/MIAX_Exchange_Group_Market_Data_Policies_07202021.pdf).

ToM and cToM data feeds are equitably allocated.

**The Proposed Fees Are Not Unfairly Discriminatory**

The Exchange believes the proposed fees for the ToM and cToM data feeds are not unfairly discriminatory because any differences in the application of the fees are based on meaningful distinctions between customers, and those meaningful distinctions are not unfairly discriminatory between customers.

*Overall.* The Exchange believes that the proposed fees are not unfairly discriminatory because they would apply to all data recipients that choose to subscribe to the same ToM and cToM data feeds. Any vendor or subscriber that chooses to subscribe to the ToM and cToM data feeds is subject to the same Fee Schedule, regardless of what type of business they operate. In sum, each vendor or subscriber has the ability to choose the best business solution for itself. The Exchange does not believe it is unfairly discriminatory to base pricing upon the amount of information contained in each data feed and the value of that information to market participants.

*Internal Distribution Fees.* The Exchange believes the proposed monthly fees for Internal Distribution of the ToM and cToM data feeds are not unfairly discriminatory because they would be charged on an equal basis to all data recipients that receive the same ToM and cToM data feeds for internal distribution, regardless of what type of business they operate.

*External Distribution Fees.* The Exchange believes the proposed monthly fees for redistributing the ToM and cToM data feeds are not unfairly discriminatory because they would be charged on an equal basis to all data recipients that receive the same ToM and cToM data feeds that choose to redistribute the feed(s) externally. The Exchange also believes that having higher monthly fees for External Distribution than Internal Distribution is not unfairly discriminatory because data recipients that are externally distributing ToM and cToM data feeds

are able to monetize such distribution and spread such costs amongst multiple third party data recipients, whereas the Internal Distribution fee is applicable to use by a single data recipient (and its affiliates).

For all of the foregoing reasons, the Exchange believes that the proposed fees for the Exchange Data Feeds are not unfairly discriminatory.

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

In accordance with Section 6(b)(8) of the Act,<sup>52</sup> the Exchange does not believe that the proposed rule change would impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

##### **Intra-Market Competition**

The Exchange does not believe that the proposed fees place certain market participants at a relative disadvantage to other market participants because, as noted above, the proposed fees are associated with usage of the data feed by each market participant based on whether the market participant internally or externally distributes the Exchange data, which are still ultimately in the control of any particular Member, and such fees do not impose a barrier to entry to smaller participants. Accordingly, the proposed fees do not favor certain categories of market participants in a manner that would impose a burden on competition; rather, the allocation of the proposed fees reflects the types of data consumed by various market participants and their usage thereof.

##### **Inter-Market Competition**

The Exchange does not believe the proposed fees place an undue burden on competition on other SROs that is not necessary or appropriate. In particular, market participants are not

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<sup>52</sup> 15 U.S.C. 78f(b)(8).

forced to subscribe to either data feed, as described above. Additionally, other exchanges have similar market data fees with comparable rates in place for their participants.<sup>53</sup> The proposed fees are based on actual costs and are designed to enable the Exchange to recoup its applicable costs with the possibility of a reasonable profit on its investment as described in the Purpose and Statutory Basis sections. Competing exchanges are free to adopt comparable fee structures subject to the Commission's rule filing process. Allowing the Exchange, or any new market entrant, to waive fees (as the Exchange did for cToM) for a period of time to allow it to become established encourages market entry and thereby ultimately promotes competition.

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

The Exchange neither solicited nor received written comments on the proposed rule change.

**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>54</sup> and Rule 19b-4(f)(2) thereunder<sup>55</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**

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<sup>53</sup> See supra notes 19, 21, and 24, and accompanying text.

<sup>54</sup> 15 U.S.C. 78s(b)(3)(A)(ii).

<sup>55</sup> 17 CFR 240.19b-4.

Not applicable.

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

Not applicable.

**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.

**EXHIBIT 1**

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34- ; File No. SR-EMERALD-2023-04)

February \_\_, 2023

Self-Regulatory Organizations: Notice of Filing and Immediate Effectiveness of a Proposed Rule Change by MIAX Emerald, LLC to Amend Fees for the ToM market Data Product and Establish Fees for the cToM Market Data Product

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on February \_\_\_\_, 2023, MIAX Emerald, LLC (“MIAX Emerald” or “Exchange”), filed with the Securities and Exchange Commission (“Commission”) a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend the MIAX Emerald Fee Schedule (the “Fee Schedule”) to amend its fees for two market data products by (i) amending the fees for MIAX Emerald Top of Market (“ToM”); and (ii) establishing fees for MIAX Emerald Complex Top of Market (“cToM”).

The text of the proposed rule change is available on the Exchange’s website at <http://www.miaxoptions.com/rule-filings/emerald>, at MIAX’s principal office, and at the Commission’s Public Reference Room.

II. 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.

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend its fees for two market data products by (i) amending the fees for ToM; and (ii) establishing fees for cToM. The proposed fees will be immediately effective. The Exchange initially filed the proposal on December 28, 2022 (SR-EMERALD-2022-37) (the “Initial Proposal”).<sup>3</sup> The Exchange recently withdrew the Initial Proposal and replaced it with this current proposal (SR-EMERALD-2023-04).

The Exchange previously filed several proposals to adopt fees for cToM.<sup>4</sup> The Exchange notes that these prior proposals included an analysis of the costs underlying the compilation and dissemination of the proposed cToM fees. The Exchange previously included a cost analysis in the Initial Proposal. As described more fully below, the Exchange provides an updated cost analysis that includes, among other things, additional descriptions of how the Exchange allocated

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<sup>3</sup> See Securities Exchange Act Release No. 96625 (January 10, 2023), 88 FR 2688 (January 17, 2023) (SR-EMERALD-2022-37).

<sup>4</sup> See Securities Exchange Act Release Nos. 92358 (July 9, 2021), 86 FR 37361 (July 15, 2021) (SR-EMERALD-2021-21); SR-EMERLAD-2021-32 (withdrawn without being noticed by the Commission); 93427 (October 26, 2021), 86 FR 60310 (November 1, 2021) (SR-EMERALD-2021-34); 93811 (December 17, 2021), 86 FR 73051 (December 23, 2021) (SR-EMERALD-2021-44); 94263 (February 15, 2022), 87 FR 9766 (February 22, 2022) (SR-EMERALD-2022-06); 94715 (April 14, 2022), 87 FR 23674 (April 20, 2022) (SR-EMERALD-2022-14); 94892 (May 11, 2022), 87 FR 29963 (May 17, 2022) (SR-EMERALD-2022-18).

costs among it and its affiliated exchanges (MIAX PEARL, LLC (“MIAX Pearl”), separately among MIAX Pearl Options and MIAX Pearl Equities, and Miami International Securities Exchange, LLC (“MIAX,” together with MIAX Pearl, the “affiliated markets”)) to ensure no cost was allocated more than once, as well as additional detail supporting its cost allocation processes and explanations as to why a cost allocation in this proposal may differ from the same cost allocation in a similar proposal submitted by one of its affiliated markets. Although the baseline cost analysis used to justify the proposed fees was made in the Initial Proposal, the fees themselves have not changed since the Initial Proposal and the Exchange still proposes fees that are intended to cover the Exchange’s cost of providing ToM and cToM, with a reasonable mark-up over those costs. The proposed fees are intended to cover the Exchange’s cost of compiling and disseminating ToM and cToM with a reasonable mark-up over those costs, accounting for ongoing increases in expenses.<sup>5</sup> Before setting forth the additional details regarding the proposal as well as the updated Cost Analysis conducted by the Exchange, immediately below is a description of the proposed fees.

### **Proposed Market Data Pricing**

The Exchange offers ToM and cToM to subscribers. The Exchange notes that there is no requirement that any Member<sup>6</sup> or market participant subscribe to ToM or cToM or any other data feed offered by the Exchange. Instead, a Member may choose to maintain subscriptions to

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<sup>5</sup> For example, the New York Stock Exchange, Inc.’s (“NYSE”) Secure Financial Transaction Infrastructure (“SFTI”) network, which contributes to the Exchange’s connectivity cost, increased its fees by approximately 9% since 2021. Similarly, since 2021, the Exchange, and its affiliates, experienced an increase in data center costs of approximately 17% and an increase in hardware and software costs of approximately 19%. These percentages are based on the Exchange’s actual 2021 and proposed 2023 budgets.

<sup>6</sup> The term “Member” means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed “members” under the Exchange Act. See Exchange Rule 100.

ToM or cToM based on their business model. The proposed fees will not apply differently based upon the size or type of firm, but rather based upon the subscriptions a firm has to ToM or cToM and their use thereof, which are based upon factors deemed relevant by each firm. The proposed pricing for ToM and cToM is set forth below.

### *ToM*

ToM is an Exchange-only market data feed that contains top of book quotations based on options orders<sup>7</sup> and quotes<sup>8</sup> entered into the System<sup>9</sup> and resting on the Exchange's Simple Order Book<sup>10</sup> as well as administrative messages.<sup>11</sup> The Exchange currently charges Internal Distributors<sup>12</sup> \$1,250 per month and External Distributors \$1,750 per month for ToM. The Exchange does not currently charge, nor does it now propose to charge any additional fees based on a subscriber's use of the ToM and cToM data feeds, e.g., displayed versus non-displayed use, redistribution fees, or any individual per user fees. As discussed more fully below, the Exchange recently calculated its annual aggregate costs for producing ToM to subscribers to be \$317,753, or \$26,479 per month (rounded to the nearest dollar when dividing the annual cost by 12

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<sup>7</sup> The term "order" means a firm commitment to buy or sell option contracts. See Exchange Rule 100.

<sup>8</sup> The term "quote" or "quotation" means a bid or offer entered by a Market Maker that is firm and may update the Market Maker's previous quote, if any. The Rules of the Exchange provide for the use of different types of quotes, including Standard quotes and eQuotes, as more fully described in Rule 517. A Market Maker may, at times, choose to have multiple types of quotes active in an individual option. See Exchange Rule 100.

<sup>9</sup> The term "System" means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

<sup>10</sup> The term "Simple Order Book" means "the Exchange's regular electronic book of orders and quotes." See Exchange Rule 518(a)(15).

<sup>11</sup> See Fee Schedule, Section 6)a).

<sup>12</sup> A "Distributor" of MIAX data is any entity that receives a feed or file of data either directly from MIAX or indirectly through another entity and then distributes it either internally (within that entity) or externally (outside that entity). All Distributors are required to execute a MIAX Distributor Agreement. See Fee Schedule, Section 6)a).

months). The Exchange proposes to amend Section 6)a) of the Fee Schedule to now charge Internal Distributors \$2,000 per month and External Distributors \$3,000 per month for ToM in an effort to cover the Exchange's increasing costs with compiling and producing ToM to market participants as evidenced by the Exchange's Cost Analysis detailed below.

### *cToM*

The Exchange previously adopted rules governing the trading of Complex Orders<sup>13</sup> on the MIAX Emerald System in 2018,<sup>14</sup> ahead of the Exchange's planned launch, which took place on March 1, 2019. Shortly thereafter, the Exchange adopted the market data product, cToM, and expressly waived fees for cToM to incentivize market participants to subscribe.<sup>15</sup> cToM was provided free of charge for four years and the Exchange absorbed all costs associated with compiling and disseminating cToM during that entire time. As discussed more fully below, the Exchange recently calculated its annual aggregate costs for producing cToM to subscribers to be \$347,543, or \$28,962 per month (rounded to the nearest dollar when dividing the annual cost by 12 months). The Exchange now proposes to amend Section 6)a) of the Fee Schedule to establish fees for cToM in order to recoup its ongoing costs going forward.

In summary, cToM provides subscribers with the same information as ToM as it relates

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<sup>13</sup> See Exchange Rule 518(a)(5) for the definition of Complex Orders.

<sup>14</sup> See Securities Exchange Act Release Nos. 84891 (December 20, 2018), 83 FR 67421 (December 28, 2018) (In the Matter of the Application of MIAX EMERALD, LLC for Registration as a National Securities Exchange; Findings, Opinion, and Order of the Commission); and 85345 (March 18, 2019), 84 FR 10848 (March 22, 2019) (SR-EMERALD-2019-13) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Exchange Rule 518, Complex Orders).

<sup>15</sup> See Securities Exchange Act Release No. 85207 (February 27, 2019), 84 FR 7963 (March 5, 2019) (SR-EMERALD-2019-09) (providing a complete description of the cToM data feed).

to the Strategy Book,<sup>16</sup> *i.e.*, the Exchange's best bid and offer for a complex strategy, with aggregate size, based on displayable orders in the complex strategy on the Exchange. However, cToM provides subscribers with the following additional information that is not included in ToM: (i) the identification of the complex strategies currently trading on the Exchange; (ii) complex strategy last sale information; and (iii) the status of securities underlying the complex strategy (e.g., halted, open, or resumed). cToM is therefore a distinct market data product from ToM in that it includes additional information that is not available to subscribers that receive only ToM. ToM subscribers are not required to subscribe to cToM, and cToM subscribers are not required to subscribe to ToM.

#### ***cToM Proposed Fees***

The Exchange proposes to amend Section 6)a) of the Fee Schedule to charge Internal Distributors \$2,000 per month and External Distributors \$3,000 per month for the cToM data feed. The proposed fees are identical to the fees that the Exchange proposes to charge for ToM. The Exchange does not propose to adopt redistribution fees for the cToM data feed. However, the recipient of cToM data would be required to become a data subscriber and would be subject to the applicable data subscriber fees. The Exchange also does not propose to charge any additional fees based on a subscriber's use of the cToM data feed, e.g., displayed versus non-displayed use, and does not propose to impose any individual per user fees.

As it does today for ToM, the Exchange proposes to assess cToM fees to Internal and External Distributors in each month the Distributor is credentialed to use cToM in the production environment. Also, as the Exchange does today for ToM, market data fees for cToM will be reduced for new Distributors for the first month during which they subscribe to cToM, based on

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<sup>16</sup> The "Strategy Book" is the Exchange's electronic book of complex orders and complex quotes. See Exchange Rule 518(a)(17).

the number of trading days that have been held during the month prior to the date on which that subscriber has been credentialed to use cToM in the production environment. New cToM Distributors will be assessed a pro-rata percentage of the fees listed in the table in Section 6)a) of the Fee Schedule, which is the percentage of the number of trading days remaining in the affected calendar month as of the date on which they have been credentialed to use cToM in the production environment, divided by the total number of trading days in the affected calendar month.

The Exchange also proposes to amend the paragraph below the table of fees for ToM and cToM in Section 6)a) of the Fee Schedule to make a minor, non-substantive correction by deleting the phrase “(as applicable)” in the first sentence following the table of fees for ToM and cToM. The purpose of this proposed change is to remove unnecessary text from the Fee Schedule.

#### *cToM Content is Available from Alternative Sources*

cToM is not the exclusive source for Complex Order information from the Exchange. It is a business decision of market participants whether to subscribe to cToM or not. Market participants that choose not to subscribe to cToM can derive much, if not all, of the same information from other Exchange sources, including, for example, the MIAX Emerald Order Feed (“MOR”).<sup>17</sup> The following cToM information is included in MOR: the Exchange’s best

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<sup>17</sup> See MIAX website, Market Data & Offerings, available at <https://www.miaxoptions.com/market-data-offerings> (last visited December 20, 2022). In general, MOR provides real-time ultra-low latency updates on the following information: new Simple Orders added to the MIAX Emerald Order Book; updates to Simple Orders resting on the MIAX Emerald Order Book; new Complex Orders added to the Strategy Book (i.e., the book of Complex Orders); updates to Complex Orders resting on the Strategy Book; MIAX Emerald listed series updates; MIAX Emerald Complex Strategy definitions; the state of the MIAX Emerald System; and MIAX Emerald’s underlying trading state.

bid and offer for a complex strategy, with aggregate size, based on displayable orders in the complex strategy on the Exchange; the identification of the complex strategies currently trading on the Exchange; and the status of securities underlying the complex strategy (e.g., halted, open, or resumed). In addition to MOR, complex strategy last sale information can be derived from ToM. Specifically, market participants may deduce that last sale information for multiple trades in related options series with the same timestamps disseminated via ToM are likely part of a Complex Order transaction and last sale.

### ***Additional Discussion – cToM Background***

In the six years since the Exchange adopted Complex Order functionality, the Exchange has grown its monthly complex market share from 0% to 3.03% of the total electronic complex non-index volume executed on exchanges offering electronic complex functionality for the month of November 2022.<sup>18</sup> During that same period, the Exchange has had a steady increase in the number of cToM subscribers. Until the Exchange initially filed to adopt cToM fees in July of 2021, the Exchange did not charge fees for cToM data provided by the Exchange.

The objective of this approach was to eliminate any fee-based barriers for Members when the Exchange launched with Complex Order functionality in 2019, which the Exchange believes has been helpful in its ability to attract order flow as a new exchange. As discussed more fully below, the Exchange recently calculated its annual aggregate costs for providing cToM at approximately \$347,543. In order to establish fees that are designed to recover the aggregate costs of providing cToM plus a reasonable mark-up, the Exchange is proposing to modify its Fee Schedule, as described above. In addition to the Cost Analysis, described below, the Exchange

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<sup>18</sup> The Exchange notes that it receives complex market data for all U.S. options exchanges that offer complex functionality from direct feeds from The Options Price Reporting Authority (“OPRA”).

believes that its proposed approach to market data fees is reasonable based on a comparison to competitors.

**Additional Discussion – Comparison with Other Exchanges**

***ToM***

The proposed fees for ToM are comparable to the fees currently in place for the options exchanges, particularly Nasdaq ISE, LLC (“ISE”).<sup>19</sup> In November 2022, the Exchange had 3.11% market share of equity options volume; for that same month, ISE had 6.19% market share of equity options volume.<sup>20</sup> The Exchange’s proposed fees for ToM are equal to, and for Internal Distributors, lower than, the rates data recipients pay for comparable data feeds from ISE. The Exchange notes that other competitors maintain fees applicable to market data that are considerably higher than those proposed by the Exchange, including NYSE Arca, Inc. (“NYSE Arca”).<sup>21</sup> However, the Exchange has focused its comparison on ISE because it is the closest market in terms of market share and offers market data at prices lower than several other incumbent exchanges. The fees for the Nasdaq ISE Top Quote Feed, which like ToM, includes

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<sup>19</sup> See ISE Options 7 Pricing Schedule, Section 10, H., available at <https://listingcenter.nasdaq.com/rulebook/ise/rules/ISE%20Options%207> (assessing Professional internal and external distributors \$3,000 per month, plus \$20 per month per controlled device for ISE’s Top Quote Feed).

<sup>20</sup> See Market at a Glance, U.S. Options Market Volume Summary, available at <https://www.miaxoptions.com/> (last visited December 20, 2022).

<sup>21</sup> Fees for the NYSE Arca Options Top Feed, which is the comparable product to ToM, are \$3,000 per month for access (internal use) and an additional \$2,000 per month for redistribution (external distribution), compared to the Exchange’s proposed fees of \$2,000 and \$3,000 for Internal and External Distributors, respectively. In addition, for its NYSE Arca Options Top Feed, NYSE Arca charges for three different categories of non-display usage, and user fees, both of which the Exchange does not propose to charge, causing the overall cost of NYSE Arca Options Top Feed to far exceed the Exchange’s proposed rates. See NYSE Arca Options Proprietary Market Data Fees, available at: [https://www.nyse.com/publicdocs/nyse/data/NYSE\\_Arca\\_Options\\_Proprietary\\_Data\\_Fee\\_Schedule.pdf](https://www.nyse.com/publicdocs/nyse/data/NYSE_Arca_Options_Proprietary_Data_Fee_Schedule.pdf).

top of book, trades, and security status messages, consists of an internal distributor access fee of \$3,000 per month (50% higher than the Exchange's proposed rate), and an external distributor access fee of \$3,000 per month (equal to the Exchange's proposed rate).<sup>22</sup> ISE's overall charge to receive the Nasdaq ISE Top Quote Feed may be even higher than the Exchange's proposed rates because ISE charges additional per controlled device fees that can cause the distribution fee to reach up to \$5,000 per month.<sup>23</sup> The Exchange's proposed rates do not include additional fees.

### *cToM*

The proposed fees for cToM are comparable to the fees currently in place for competing options exchanges, particularly NYSE American, LLC ("NYSE American").<sup>24</sup> As noted above, for the month of November 2022, the Exchange had 3.11% of the total equity options market share and 3.03% of the total electronic complex non-index volume executed on exchanges offering electronic complex functionality. For that same month, NYSE American had 6.93% of the total equity options market share and 6.35% of the total electronic complex non-index volume.<sup>25</sup> The Exchange proposes fees for cToM that are comparable to the rates data recipients pay for comparable data feeds from NYSE American. The Exchange has focused its comparison on NYSE American because it is the closest market in terms of market share. The fees for the NYSE American Options Complex, which, like cToM, includes top of book, trades, and security status messages for complex orders, consists of an internal distributor access fee of \$1,500 per

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<sup>22</sup> See supra note 19.

<sup>23</sup> Id.

<sup>24</sup> See NYSE American Options Proprietary Market Data Fees, available at [https://www.nyse.com/publicdocs/nyse/data/NYSE\\_American\\_Options\\_Market\\_Data\\_Fee\\_Schedule.pdf](https://www.nyse.com/publicdocs/nyse/data/NYSE_American_Options_Market_Data_Fee_Schedule.pdf).

<sup>25</sup> See supra note 20.

month (slightly lower than the Exchange's proposed rate), and an external distributor access fee of \$1,000 per month (resulting in a total external distribution fee of \$2,500 per month).<sup>26</sup>

However, NYSE American's overall charge to receive NYSE American Options Complex data may be even higher than the Exchange's proposed rates because NYSE American charges additional non-displayed usage fees (each are \$1,000 per month and a subscriber may pay multiple non-displayed usage fees), per user fees (\$20 per month for professional users and \$1.00 per month for non-professional users), and multiple data feed fees (\$200 per month), all of which the Exchange does not propose to charge. These additional charges by NYSE American can cause the total cost to receive NYSE American Complex data to far exceed the rates that the Exchange proposes to charge.

#### **Additional Discussion – Cost Analysis**

In general, the Exchange believes that exchanges, in setting fees of all types, should meet high standards of transparency to demonstrate why each new fee or fee increase meets the Exchange Act requirements that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among members and markets. In particular, the Exchange believes that each exchange should take extra care to be able to demonstrate that these fees are based on its costs and reasonable business needs.

Accordingly, in proposing to charge fees for market data, the Exchange is especially diligent in assessing those fees in a transparent way against its own aggregate costs of providing the related service, and in carefully and transparently assessing the impact on Members – both generally and in relation to other Members – to ensure the fees will not create a financial burden on any participant and will not have an undue impact in particular on smaller Members and

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Id.

competition among Members in general. The Exchange does not believe it needs to otherwise address questions about market competition in the context of this filing because the proposed fees are so clearly consistent with the Act based on its Cost Analysis. The Exchange also believes that this level of diligence and transparency is called for by the requirements of Section 19(b)(1) under the Act,<sup>27</sup> and Rule 19b-4 thereunder,<sup>28</sup> with respect to the types of information self-regulatory organizations (“SROs”) should provide when filing fee changes, and Section 6(b) of the Act,<sup>29</sup> which requires, among other things, that exchange fees be reasonable and equitably allocated,<sup>30</sup> not designed to permit unfair discrimination,<sup>31</sup> and that they not impose a burden on competition not necessary or appropriate in furtherance of the purposes of the Act.<sup>32</sup> This rule change proposal addresses those requirements, and the analysis and data in this section are designed to clearly and comprehensively show how they are met.<sup>33</sup>

As noted above, the Exchange has conducted and recently updated a study of its aggregate costs to produce the ToM and cToM data feeds – the Cost Analysis.<sup>34</sup> The Cost

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<sup>27</sup> 15 U.S.C. 78s(b)(1).

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

<sup>29</sup> 15 U.S.C. 78f(b).

<sup>30</sup> 15 U.S.C. 78f(b)(4).

<sup>31</sup> 15 U.S.C. 78f(b)(5).

<sup>32</sup> 15 U.S.C. 78f(b)(8).

<sup>33</sup> In 2019, Commission staff published guidance suggesting the types of information that SROs may use to demonstrate that their fee filings comply with the standards of the Exchange Act (“Fee Guidance”). While the Exchange understands that the Fee Guidance does not create new legal obligations on SROs, the Fee Guidance is consistent with the Exchange’s view about the type and level of transparency that exchanges should meet to demonstrate compliance with their existing obligations when they seek to charge new fees. See Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019) available at <https://www.sec.gov/tm/staff-guidancesro-rule-filings-fees>.

<sup>34</sup> The Exchange notes that its Cost Analysis is based on that conducted by MEMX, LLC (“MEMX”). See Securities Exchange Act Release Nos. 95936 (September 27, 2022), 87 FR 59845 (October 3, 2022) (SR-MEMX-2022-26); and 96430 (December 1, 2022), 87

Analysis required a detailed analysis of the Exchange’s aggregate baseline costs, including a determination and allocation of costs for core services provided by the Exchange – transactions, market data, membership services, physical connectivity, and ports (which provide order entry, cancellation and modification functionality, risk functionality, ability to receive drop copies, and other functionality). The Exchange separately divided its costs between those costs necessary to deliver each of these core services, including infrastructure, software, human resources (i.e., personnel), and certain general and administrative expenses (collectively, “cost drivers”).

As an initial step, the Exchange determined the total cost for the Exchange and the affiliated markets. That total cost was then divided among the Exchange and each of its affiliated markets based on a number of factors, including server counts, additional hardware and software utilization, current or anticipated functional or non-functional development projects, capacity needs, end-of-life or end-of-service intervals, number of members, market model (e.g., price time or pro-rata), which may impact message traffic, individual system architectures that impact platform size,<sup>35</sup> storage needs, dedicated infrastructure versus shared infrastructure allocated per platform based on the resources required to support each platform, number of available connections, and employees allocated time. This will result in different allocation percentages among the Exchange and its affiliated markets. Meanwhile this allocation methodology ensures that no portion of any cost was allocated twice or double-counted between the Exchange and its affiliated markets.

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FR 75083 (December 7, 2022) (SR-MEMX-2022-32). The Exchange notes that the percentage allocations and cost levels are based on the Exchange’s 2023 estimated budget and may differ from those provided by MEMX for a number of reasons, including the Exchange’s ability to allocate costs among multiple exchanges while MEMX allocates cost to a single exchange.

<sup>35</sup> For example, the Exchange maintains 12 matching engines, MIAX Pearl Options maintains 12 matching engines, MIAX Pearl Equities maintains 24 matching engines, and MIAX maintains 24 matching engines.

Next, the Exchange adopted an allocation methodology with thoughtful and consistently principles to guide how much of a particular cost amount allocated to the Exchange pursuant to the above methodology should be allocated within the Exchange to each core service. For instance, fixed costs that are not driven by client activity (e.g., message rates), such as data center costs, were allocated more heavily to the provision of physical connectivity (61.9% of total expense amount allocated), with smaller allocations to additional Limited Service MEI Ports (8.8%), and the remainder to the provision of membership services, transaction execution and market data services (29.3%). This next level of the allocation methodology at the individual exchange level also took into account a number of factors similar to those set forth under the first allocation methodology described above, to determine the appropriate allocation to connectivity or market data versus what is to be allocated to providing other services. The allocation methodology was developed through an assessment of costs with senior management intimately familiar with each area of the Exchange's operations. After adopting this allocation methodology, the Exchange then applied an estimated allocation of each Cost Driver to each core service, resulting in the cost allocations described below. Each of the below cost allocations is unique to the Exchange and represents a percentage of overall cost that was allocated to the Exchange pursuant to the initial allocation described above.

By allocating segmented costs to each core service, the Exchange was able to estimate by core service the potential margin it might earn based on different fee models. The Exchange notes that as a non-listing venue it has five primary sources of revenue that it can potentially use to fund its operations: transaction, access, membership, regulatory, and market data fees. Accordingly, the Exchange generally must cover its expenses from these four primary sources of revenue. The Exchange also notes that as a general matter each of these sources of revenue is based on services that are interdependent. For instance, the Exchange's system for executing

transactions is dependent on physical hardware and connectivity; only Members and parties that they sponsor to participate directly on the Exchange may submit orders to the Exchange; many Members (but not all) consume market data from the Exchange in order to trade on the Exchange; and, the Exchange consumes market data from external sources in order to comply with regulatory obligations. Accordingly, given this interdependence, the allocation of costs to each service or revenue source required judgment of the Exchange and was weighted based on estimates of the Exchange that the Exchange believes are reasonable, as set forth below. While there is no standardized and generally accepted methodology for the allocation of an exchange's costs, the Exchange's methodology is the result of an extensive review and analysis and will be consistently applied going forward for any other potential fee proposals. In the absence of the Commission attempting to specify a methodology for the allocation of exchanges' interdependent costs, the Exchange will continue to be left with its best efforts to attempt to conduct such an allocation in a thoughtful and reasonable manner.

Through the Exchange's extensive Cost Analysis, which was again recently updated to focus solely on the provision of ToM and cToM data feeds, the Exchange analyzed nearly every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the provision of ToM and cToM data feeds, and, if such expense did so relate, what portion (or percentage) of such expense actually supports the provision of ToM and cToM data feeds, and thus bears a relationship that is, "in nature and closeness," directly related to ToM and cToM data feeds. Based on its analysis, the Exchange calculated its aggregate annual costs for providing the ToM and cToM data feeds to be \$665,296. This results in an estimated monthly cost for providing ToM and cToM data feeds of \$55,441 (rounded to the nearest dollar when dividing the aggregate annual cost by 12 months). In order to cover operating costs and earn a reasonable profit on its market data, the Exchange has determined it necessary to charge fees for

its proprietary data products, and, as such, the Exchange is proposing to modify its Fee Schedule, as set forth above. With the proposed fee changes, the Exchange anticipates annual revenue for ToM and cToM to be \$804,000 (or \$67,000 per month combined).

***Costs Related to Offering ToM and cToM Data Feeds***

The following chart details the individual line-item (annual) costs considered by the Exchange to be related to offering the ToM and cToM data feeds to its Members and other customers, as well as the percentage of the Exchange’s overall costs that such costs represent for such area (e.g., as set forth below, the Exchange allocated approximately 2.8% of its overall Human Resources cost to offering ToM and cToM data feeds).

<b>COST DRIVERS</b>	<b>COSTS</b>	<b>% OF ALL</b>
Human Resources	\$354,553	2.8%
Network Infrastructure (fiber connectivity)	\$9,428	1.7%
Data Center	\$20,630	1.7%
Hardware and Software Maintenance & Licenses	\$22,202	1.7%
Depreciation	\$21,167	0.7%
Allocated Shared Expenses	\$237,316	3.0%
<b>TOTAL</b>	<b>\$665,296</b>	<b>2.5%</b>

***Human Resources***

For personnel costs (Human Resources), the Exchange calculated an allocation of employee time for employees whose functions include directly providing services necessary to offer the ToM and cToM data feeds, including performance thereof, as well as personnel with ancillary functions related to establishing and providing such services (such as information security and finance personnel). The Exchange notes that it and its affiliated markets have approximately 184 employees (excluding employees at non-options exchange subsidiaries of Miami International Holdings, Inc. (“MIH”), the holding company of the Exchange and its affiliates, MIAX Pearl and MIAX), and each department leader has direct knowledge of the time spent by each employee with respect to the various tasks necessary to operate the Exchange.

Specifically, twice a year and as needed with additional new hires and new project initiatives, in consultation with employees as needed, managers and department heads assign a percentage of time to every employee and then allocate that time amongst the Exchange and its affiliated markets to determine that market's individual Human Resources expense. Then, again managers and department heads assign a percentage of each employee's time allocated to the Exchange into buckets including network connectivity, ports, market data, and other exchange services. This process ensures that every employee is 100% allocated, ensuring there is no double counting between the Exchange and its affiliated markets.

The estimates of Human Resources cost were therefore determined by consulting with such department leaders, determining which employees are involved in tasks related to providing the ToM and cToM data feeds, and confirming that the proposed allocations were reasonable based on an understanding of the percentage of their time such employees devote to tasks related to providing the ToM and cToM data feeds. The Exchange notes that senior level executives were allocated Human Resources costs to the extent the Exchange believed they are involved in overseeing tasks related to providing the ToM and cToM data feeds. The Exchange's cost allocation for employees who perform work in support of generating and disseminating the ToM and cToM data feeds arrive at a full time equivalent ("FTE") of 1.2 FTEs. The Human Resources cost was calculated using a blended rate of compensation reflecting salary, equity and bonus compensation, benefits, payroll taxes, and 401(k) matching contributions.

### *Network Infrastructure*

The Network Infrastructure cost includes cabling and switches required to generate and disseminate the ToM and cToM data feeds. The Network Infrastructure cost was narrowly estimated by focusing on the servers used at the Exchange's primary and back-up data centers specifically for the ToM and cToM data feeds. Further, as certain servers are only partially

utilized to generate and disseminate the ToM and cToM data feeds, only the percentage of such servers devoted to generating and disseminating the ToM and cToM data feeds was included (i.e., the capacity of such servers allocated to the ToM and cToM data feeds).<sup>36</sup>

### ***Data Center***

The Exchange does not own the primary data center or the secondary data center, but instead leases space in data centers operated by third parties where the Exchange houses servers, switches and related equipment. Data Center costs include an allocation of the costs the Exchange incurs to provide the ToM and cToM data feeds in the third-party data centers where the Exchange maintains its equipment, as well as related costs. As the Data Center costs are primarily for space, power, and cooling of servers, the Exchange allocated 1.7% to the applicable Data Center costs for the ToM and cToM data feeds. The Exchange believes it is reasonable to apply the same proportionate percentage of Data Center costs to that of Network Infrastructure.

### ***Hardware and Software Maintenance and Licenses***

Hardware and Software Maintenance and Licenses includes those licenses used to operate and monitor physical assets necessary to offer the ToM and cToM data feeds. Because the hardware and software license fees are correlated to the servers used by the Exchange, the Exchange again applied an allocation of 1.7% of its costs for Hardware and Software

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<sup>36</sup> The Exchange understands that the Investors Exchange, Inc. (“IEX”) and MEMX both allocated a percentage of their servers to the production and dissemination of market data to support proposed market data fees. See Securities Exchange Act Release No. 94630 (April 7, 2022), 87 FR 21945, at page 21949 (April 13, 2022) (SR-IEX-2022-02). See also supra note 34. The Exchange does not have insight into either MEMX’s or IEX’s technology infrastructure or what their determinations were based on. However, the Exchange reviewed its own technology infrastructure and believes based on its design, it is more appropriate for the Exchange to allocate a portion of its network infrastructure cost to market data based on a percentage of overall cost, not on a per server basis.

Maintenance and Licenses to the ToM and cToM data feeds.<sup>37</sup>

### ***Monthly Depreciation***

The vast majority of the hardware and software the Exchange uses with respect to its operations, including the software used to generate and disseminate the ToM and cToM data feeds has been developed in-house and the cost of such development is depreciated over time. Accordingly, the Exchange included Depreciation costs related to depreciated hardware and software used to generate and disseminate the ToM and cToM data feeds. The Exchange also included in the Depreciation costs certain budgeted improvements that the Exchange intends to capitalize and depreciate with respect to the ToM and cToM data feeds in the near-term. As with the other allocated costs in the Exchange's updated Cost Analysis, the Depreciation cost was therefore narrowly tailored to depreciation related to the ToM and cToM data feeds. The Exchange also notes that this allocation differs from its affiliated markets due to a number of factors, such as the age of physical assets and software (e.g., older physical assets and software were previously depreciated and removed from the allocation), or certain system enhancements that required new physical assets and software, thus providing a higher contribution to the depreciated cost.

### ***Allocated Shared Expenses***

Finally, certain general shared expenses were allocated to the ToM and cToM data feeds. However, contrary to its prior cost analysis, rather than taking the whole amount of general shared expenses and applying an allocated percentage, the Exchange has narrowly selected

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<sup>37</sup> This expense may be less than the Exchange's affiliated markets, specifically MIAX Pearl, because, unlike the Exchange, MIAX Pearl (the options and equities markets) maintains an additional gateway to accommodate its member's access and connectivity needs. This added gateway contributes to the difference in allocations between the Exchange and MIAX Pearl.

specific general shared expenses relevant to the cToM data feed. The costs included in general shared expenses allocated to the ToM and cToM data feeds include office space and office expenses (e.g., occupancy and overhead expenses), utilities, recruiting and training, marketing and advertising costs, professional fees for legal, tax and accounting services (including external and internal audit expenses), and telecommunications costs. The cost of paying individuals to serve on the Exchange's Board of Directors or any committee was not allocated to providing ToM and cToM data feeds.

### ***Cost Analysis – Additional Discussion***

In conducting its Cost Analysis, the Exchange did not allocate any of its expenses in full to any core service and did not double-count any expenses. Instead, as described above, the Exchange identified and allocated applicable Cost Drivers across its core services and used the same approach to analyzing costs to form the basis of separate proposals to amend fees for connectivity and port services<sup>38</sup> and this filing proposing fees for ToM and cToM. Thus, the Exchange's allocations of cost across core services were based on real costs of operating the Exchange and were not double-counted across the core services or their associated revenue streams. The proposed fees for ToM and cToM data feeds are designed to permit the Exchange to cover the costs allocated to providing cToM data with a mark-up that the Exchange believes is modest (approximately 17%, which will decrease over time<sup>39</sup>), which the Exchange believes is

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<sup>38</sup> See MIAX Exchange Group Alert, "MIAX Options, Pearl Options and Emerald Options Exchanges – January 1, 2023 Non-Transaction Fee Changes," issued December 9, 2022, available at <https://www.miaxoptions.com/alerts/2022/12/09/miax-options-pearl-options-and-emerald-options-exchanges-january-1-2023-non-0>.

<sup>39</sup> Assuming the U.S. inflation rate continues at its current rate, the projected profit margins in this proposal will decrease and may reach single to negative digit levels in approximately 18 to 24 months. See, e.g., <https://www.usinflationcalculator.com/inflation/current-inflation-rates/> (last visited February 15, 2023).

fair and reasonable after taking into account the costs related to creating, generating, and disseminating the ToM and cToM data feeds and the fact that the Exchange will need to fund future expenditures (increased costs, improvements, etc.). The Exchange also reiterates that prior to July of 2021, the month in which it first proposed to adopt fees for cToM, the Exchange has not previously charged any fees for cToM and its allocation of costs to cToM was part of a holistic allocation that also allocated costs to other core services without double-counting any expenses.

The Exchange is owned by a holding company that is the parent company of four exchange markets and, therefore, the Exchange and its affiliated markets must allocate shared costs across all of those markets accordingly, pursuant to the above-described allocation methodology. In contrast, the Investors Exchange LLC (“IEX”) and MEMX, which are currently each operating only one exchange, in their recent non-transaction fee filings can allocate the entire amount of that same cost to a single exchange. This can result in lower profit margins for the non-transaction fees proposed by IEX and MEMX because the single allocated cost does not experience the efficiencies and synergies associated with shared costs across multiple platforms.<sup>40</sup> The Exchange and its affiliated markets must share a single cost, which results in cost efficiencies that cause a broader gap between the allocated cost amount and projected revenue, even though the fee levels being proposed are lower or similar to competing

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<sup>40</sup> The Exchange acknowledges that IEX included in its proposal to adopt market data fees after offering market data for free an analysis of what its projected revenue would be if all of its existing customers continued to subscribe versus what its projected revenue would be if a limited number of customers subscribed due to the new fees. See Securities Exchange Act Release No. 94630 (April 7, 2022), 87 FR 21945 (April 13, 2022) (SR-IEX-2022-02). MEMX did not include a similar analysis in either of its recent non-transaction fee proposals. See, e.g., supra note 34. The Exchange does not believe a similar analysis would be useful here because it is amending existing fees, not proposing to charge a new fee where existing subscribers may terminate connections because they are no longer enjoying the service at no cost.

markets (as described above). To the extent that the application of a cost-based standard results in Commission Staff making determinations as to the appropriateness of certain profit margins, the Commission Staff must consider whether the proposed fee level is comparable to, or on parity with, the same fee charged by competing exchanges and how different cost allocation methodologies (such as across multiple markets) may result in different profit margins for comparable fee levels. If it is the case that the Commission Staff is making determinations as to appropriate profit margins, the Exchange believes that Staff should be clear to all market participants as to what they determine is an appropriate profit margin and should apply such determinations consistently and, in the case of certain legacy exchanges, retroactively, if such standards are to avoid having a discriminatory effect.

Further, the proposal reflects the Exchange's efforts to control its costs, which the Exchange does on an ongoing basis as a matter of good business practice. A potential profit margin should not be judged alone based on its size, but is also indicative of costs management and whether the ultimate fee reflects the value of the services provided. For example, a profit margin on one exchange should not be deemed excessive where that exchange has been successful in controlling its costs, but not excessive where on another exchange where that exchange is charging comparable fees but has a lower profit margin due to higher costs. Doing so could have the perverse effect of not incentivizing cost control where higher costs alone could be used to justify fees increases.

Accordingly, while the Exchange believes in transparency around costs and potential margins, as well as periodic review of revenues and applicable costs (as discussed below), the Exchange does not believe that these estimates should form the sole basis of whether or not a proposed fee is reasonable or can be adopted. Instead, the Exchange believes that the information should be used solely to confirm that an Exchange is not earning supra-competitive profits, and

the Exchange believes the Cost Analysis and related projections demonstrate this fact.

The Exchange notes that the Cost Analysis is based on the Exchange's 2023 fiscal year of operations and projections. It is possible, however, that such costs will either decrease or increase. To the extent the Exchange sees growth in use of ToM and cToM data feeds it will receive additional revenue to offset future cost increases. However, if use of ToM and cToM data feeds is static or decreases, the Exchange might not realize the revenue that it anticipates or needs in order to cover applicable costs. Accordingly, the Exchange is committing to conduct a one-year review after implementation of these fees. The Exchange expects that it may propose to adjust fees at that time, to increase fees in the event that revenues fail to cover costs and a reasonable mark-up of such costs.

Similarly, the Exchange expects that it would propose to decrease fees in the event that revenue materially exceeds current projections. In addition, the Exchange will periodically conduct a review to inform its decision making on whether a fee change is appropriate (e.g., to monitor for costs increasing/decreasing or subscribers increasing/decreasing, etc. in ways that suggest the then-current fees are becoming dislocated from the prior cost-based analysis) and expects that it would propose to increase fees in the event that revenues fail to cover its costs and a reasonable mark-up, or decrease fees in the event that revenue or the mark-up materially exceeds current projections. In the event that the Exchange determines to propose a fee change, the results of a timely review, including an updated cost estimate, will be included in the rule filing proposing the fee change. More generally, the Exchange believes that it is appropriate for an exchange to refresh and update information about its relevant costs and revenues in seeking any future changes to fees, and the Exchange commits to do so.

### **Implementation**

The proposed rule changes will be immediately effective.

## 2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the provisions of Section 6(b)<sup>41</sup> of the Act in general, and furthers the objectives of Section 6(b)(4)<sup>42</sup> of the Act, in particular, in that it is designed to provide for the equitable allocation of reasonable dues, fees and other charges among its Members and other persons using its facilities. Additionally, the Exchange believes that the proposed fees are consistent with the objectives of Section 6(b)(5)<sup>43</sup> of the Act in that they are designed 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 a free and open market and national market system, and, in general, to protect investors and the public interest, and, particularly, are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Exchange notes prior to addressing the specific reasons the Exchange believes the proposed fees and fee structure are reasonable, equitably allocated and not unreasonably discriminatory, that the proposed fees are consistent with the fee amounts charged by competing U.S. securities exchanges. For this reason, the Exchange believes that the proposed fees are consistent with the Act generally, and Section 6(b)(5)<sup>44</sup> of the Act in particular.

As noted above, in the four years since the Exchange launched operations with Complex Order functionality, the Exchange has grown its monthly complex market share from 0% to 3.03% of the total electronic complex non-index volume executed on U.S. options exchanges

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<sup>41</sup> 15 U.S.C. 78f.

<sup>42</sup> 15 U.S.C. 78f(b)(4).

<sup>43</sup> 15 U.S.C. 78f(b)(5).

<sup>44</sup> 15 U.S.C. 78f(b)(5).

offering complex functionality for the month of November 2022.<sup>45</sup> One of the primary objectives of the Exchange is to provide competition and to reduce fixed costs imposed upon the industry. Consistent with this objective, the Exchange believes that this proposal reflects a simple, competitive, reasonable, and equitable pricing structure.

### **Reasonableness**

*Overall.* With regard to reasonableness, the Exchange understands that the Commission has traditionally taken a market-based approach to examine whether the SRO making the fee proposal was subject to significant competitive forces in setting the terms of the proposal. The Exchange understands that in general the analysis considers whether the SRO has demonstrated in its filing that (i) there are reasonable substitutes for the product or service; (ii) “platform” competition constrains the ability to set the fee; and/or (iii) revenue and cost analysis shows the fee would not result in the SRO taking supra-competitive profits. If the SRO demonstrates that the fee is subject to significant competitive forces, the Exchange understands that in general the analysis will next consider whether there is any substantial countervailing basis to suggest the fee’s terms fail to meet one or more standards under the Exchange Act. The Exchange further understands that if the filing fails to demonstrate that the fee is constrained by competitive forces, the SRO must provide a substantial basis, other than competition, to show that it is consistent with the Exchange Act, which may include production of relevant revenue and cost data pertaining to the product or service.

The Exchange has not determined its proposed overall market data fees based on assumptions about market competition, instead relying upon a cost-plus model to determine a reasonable fee structure that is informed by the Exchange’s understanding of different uses of the

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<sup>45</sup> See supra note 20.

products by different types of participants. In this context, the Exchange believes the proposed fees overall are fair and reasonable as a form of cost recovery plus the possibility of a reasonable return for the Exchange's aggregate costs of offering the ToM and cToM data feeds. The Exchange believes the proposed fees are reasonable because they are designed to generate annual revenue to recoup some or all of Exchange's annual costs of providing ToM and cToM data with a reasonable mark-up. As discussed in the Purpose section, the Exchange estimates this fee filing will result in annual revenue of approximately \$804,000, representing a potential mark-up of just 17% over the cost of providing ToM and cToM data. Accordingly, the Exchange believes that this fee methodology is reasonable because it allows the Exchange to recoup some or all of its expenses for providing the ToM and cToM data products (with any additional revenue representing no more than what the Exchange believes to be a reasonable rate of return). The Exchange also believes that the proposed fees are reasonable because they are generally less than the fees charged by competing options exchanges for comparable market data products, notwithstanding that the competing exchanges may have different system architectures that may result in different cost structures for the provision of market data.

The Exchange believes the proposed fees for the ToM and cToM data feeds are reasonable when compared to fees for comparable products, compared to which the Exchange's proposed fees are generally lower, as well as other comparable data feeds priced significantly higher than the Exchange's proposed fees for the ToM and cToM data feeds.<sup>46</sup>

*Internal Distribution Fees.* The Exchange believes that it is reasonable to charge fees to access the ToM and cToM data feeds for Internal Distribution because of the value of such data to subscribers in their profit-generating activities. The Exchange also believes that the proposed

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<sup>46</sup> See supra notes 19, 21, and 24, and accompanying text.

monthly Internal Distribution fee for cToM is reasonable as it is similar to the amount charged by at least one other exchange of comparable size for comparable data products, and lower than the fees charged by other exchange for comparable data products.<sup>47</sup>

External Distribution Fees. The Exchange believes that it is reasonable to charge External Distribution fees for the ToM and cToM data feeds because vendors receive value from redistributing the data in their business products provided to their customers. The Exchange believes that charging External Distribution fees is reasonable because the vendors that would be charged such fees profit by re-transmitting the Exchange's market data to their customers. These fees would be charged only once per month to each vendor account that redistributes any ToM and cToM data feeds, regardless of the number of customers to which that vendor redistributes the data.

For all of the foregoing reasons, the Exchange believes that the proposed fees for the ToM and cToM data feeds are reasonable.

### **Equitable Allocation**

Overall. The Exchange believes that its proposed fees are reasonable, fair, and equitable, and not unfairly discriminatory because they are designed to align fees with services provided. The Exchange believes the proposed fees for the ToM and cToM data feeds are allocated fairly and equitably among the various categories of users of the feeds, and any differences among categories of users are justified and appropriate.

The Exchange believes that the proposed fees are equitably allocated because they will apply uniformly to all data recipients that choose to subscribe to the ToM and cToM data feeds. Any subscriber or vendor that chooses to subscribe to the ToM and cToM data feeds is subject to

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<sup>47</sup> See, e.g., supra notes 19, 21, and 24.

the same Fee Schedule, regardless of what type of business they operate, and the decision to subscribe to one or more ToM and cToM data feeds is based on objective differences in usage of ToM and cToM data feeds among different Members, which are still ultimately in the control of any particular Member. The Exchange believes the proposed pricing of the ToM and cToM data feeds is equitably allocated because it is based, in part, upon the amount of information contained in each data feed and the value of that information to market participants.

*Internal Distribution Fees.* The Exchange believes the proposed monthly fees for Internal Distribution of the ToM and cToM data feeds are equitably allocated because they would be charged on an equal basis to all data recipients that receive the ToM and cToM data feeds for internal distribution, regardless of what type of business they operate.

*External Distribution Fees.* The Exchange believes the proposed monthly fees for External Distribution of the ToM and cToM data feeds are equitably allocated because they would be charged on an equal basis to all data recipients that receive the ToM and cToM data feeds that choose to redistribute the feeds externally, regardless of what business they operate. The Exchange also believes that the proposed monthly fees for External Distribution are equitably allocated when compared to lower proposed fees for Internal Distribution because data recipients that are externally distributing ToM and cToM data feeds are able to monetize such distribution and spread such costs amongst multiple third party data recipients, whereas the Internal Distribution fee is applicable to use by a single data recipient (and its affiliates).

The Exchange believes that it is reasonable, equitable and not unfairly discriminatory to assess Internal Distributors fees that are less than the fees assessed for External Distributors for subscriptions to the ToM and cToM data feeds because Internal Distributors have limited, restricted usage rights to the market data, as compared to External Distributors, which have more expansive usage rights. All Members and non-Members that decide to receive any market data

feed of the Exchange (or its affiliates, MIAX Pearl and MIAX), must first execute, among other things, the MIAX Exchange Group Exchange Data Agreement (the “Exchange Data Agreement”).<sup>48</sup> Pursuant to the Exchange Data Agreement, Internal Distributors are restricted to the “internal use” of any market data they receive. This means that Internal Distributors may only distribute the Exchange’s market data to the recipient’s officers and employees and its affiliates.<sup>49</sup> External Distributors may distribute the Exchange’s market data to persons who are not officers, employees or affiliates of the External Distributor,<sup>50</sup> and may charge their own fees for the redistribution of such market data. External Distributors may monetize their receipt of the ToM and cToM data feeds by charging their customers fees for receipt of the Exchange’s cToM data. Internal Distributors do not have the same ability to monetize the Exchange’s ToM and cToM data feeds. Accordingly, the Exchange believes it is fair, reasonable and not unfairly discriminatory to assess External Distributors a higher fee for the Exchange’s ToM and cToM data feeds as External Distributors have greater usage rights to commercialize such market data and can adjust their own fee structures if necessary.

The Exchange also utilizes more resources to support External Distributors versus Internal Distributors, as External Distributors have reporting and monitoring obligations that Internal Distributors do not have, thus requiring additional time and effort of Exchange staff. For example, External Distributors have monthly reporting requirements under the Exchange’s

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<sup>48</sup> See Exchange Data Agreement, available at [https://miaxweb2.pairsite.com/sites/default/files/page-files/MIAX\\_Exchange\\_Group\\_Data\\_Agreement\\_09032020.pdf](https://miaxweb2.pairsite.com/sites/default/files/page-files/MIAX_Exchange_Group_Data_Agreement_09032020.pdf).

<sup>49</sup> See *id.*

<sup>50</sup> See *id.*

Market Data Policies.<sup>51</sup> Exchange staff must then, in turn, process and review information reported by External Distributors to ensure the External Distributors are redistributing cToM data in compliance with the Exchange's Market Data Agreement and Policies.

The Exchange believes the proposed cToM fees are equitable and not unfairly discriminatory because the fee level results in a reasonable and equitable allocation of fees amongst subscribers for similar services, depending on whether the subscriber is an Internal or External Distributor. Moreover, the decision as to whether or not to purchase market data is entirely optional to all market participants. Potential purchasers are not required to purchase the market data, and the Exchange is not required to make the market data available. Purchasers may request the data at any time or may decline to purchase such data. The allocation of fees among users is fair and reasonable because, if market participants decide not to subscribe to the data feed, firms can discontinue their use of the cToM data.

For all of the foregoing reasons, the Exchange believes that the proposed fees for the ToM and cToM data feeds are equitably allocated.

### **The Proposed Fees Are Not Unfairly Discriminatory**

The Exchange believes the proposed fees for the ToM and cToM data feeds are not unfairly discriminatory because any differences in the application of the fees are based on meaningful distinctions between customers, and those meaningful distinctions are not unfairly discriminatory between customers.

*Overall.* The Exchange believes that the proposed fees are not unfairly discriminatory because they would apply to all data recipients that choose to subscribe to the same ToM and

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<sup>51</sup> See Section 6 of the Exchange's Market Data Policies, available at [https://www.miaxoptions.com/sites/default/files/page-files/MIAX\\_Exchange\\_Group\\_Market\\_Data\\_Policies\\_07202021.pdf](https://www.miaxoptions.com/sites/default/files/page-files/MIAX_Exchange_Group_Market_Data_Policies_07202021.pdf).

cToM data feeds. Any vendor or subscriber that chooses to subscribe to the ToM and cToM data feeds is subject to the same Fee Schedule, regardless of what type of business they operate. In sum, each vendor or subscriber has the ability to choose the best business solution for itself. The Exchange does not believe it is unfairly discriminatory to base pricing upon the amount of information contained in each data feed and the value of that information to market participants.

*Internal Distribution Fees.* The Exchange believes the proposed monthly fees for Internal Distribution of the ToM and cToM data feeds are not unfairly discriminatory because they would be charged on an equal basis to all data recipients that receive the same ToM and cToM data feeds for internal distribution, regardless of what type of business they operate.

*External Distribution Fees.* The Exchange believes the proposed monthly fees for redistributing the ToM and cToM data feeds are not unfairly discriminatory because they would be charged on an equal basis to all data recipients that receive the same ToM and cToM data feeds that choose to redistribute the feed(s) externally. The Exchange also believes that having higher monthly fees for External Distribution than Internal Distribution is not unfairly discriminatory because data recipients that are externally distributing ToM and cToM data feeds are able to monetize such distribution and spread such costs amongst multiple third party data recipients, whereas the Internal Distribution fee is applicable to use by a single data recipient (and its affiliates).

For all of the foregoing reasons, the Exchange believes that the proposed fees for the Exchange Data Feeds are not unfairly discriminatory.

B. Self-Regulatory Organization's Statement on Burden on Competition

In accordance with Section 6(b)(8) of the Act,<sup>52</sup> the Exchange does not believe that the

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<sup>52</sup> 15 U.S.C. 78f(b)(8).

proposed rule change would impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

### **Intra-Market Competition**

The Exchange does not believe that the proposed fees place certain market participants at a relative disadvantage to other market participants because, as noted above, the proposed fees are associated with usage of the data feed by each market participant based on whether the market participant internally or externally distributes the Exchange data, which are still ultimately in the control of any particular Member, and such fees do not impose a barrier to entry to smaller participants. Accordingly, the proposed fees do not favor certain categories of market participants in a manner that would impose a burden on competition; rather, the allocation of the proposed fees reflects the types of data consumed by various market participants and their usage thereof.

### **Inter-Market Competition**

The Exchange does not believe the proposed fees place an undue burden on competition on other SROs that is not necessary or appropriate. In particular, market participants are not forced to subscribe to either data feed, as described above. Additionally, other exchanges have similar market data fees with comparable rates in place for their participants.<sup>53</sup> The proposed fees are based on actual costs and are designed to enable the Exchange to recoup its applicable costs with the possibility of a reasonable profit on its investment as described in the Purpose and Statutory Basis sections. Competing exchanges are free to adopt comparable fee structures subject to the Commission's rule filing process. Allowing the Exchange, or any new market entrant, to waive fees (as the Exchange did for cToM) for a period of time to allow it to become

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<sup>53</sup> See supra notes 19, 21, and 24, and accompanying text.

established encourages market entry and thereby ultimately promotes competition.

C. 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.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(ii) of the Act,<sup>54</sup> and Rule 19b-4(f)(2)<sup>55</sup> thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act.

Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>);

or

- Send an e-mail [to rule-comments@sec.gov](mailto:to-rule-comments@sec.gov). Please include File Number SR-

EMERALD-2023-04 on the subject line.

Paper comments:

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<sup>54</sup> 15 U.S.C. 78s(b)(3)(A)(ii).

<sup>55</sup> 17 CFR 240.19b-4(f)(2).

- Send paper comments in triplicate to Vanessa Countryman, Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-EMERALD-2023-04. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>).

Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly.

All submissions should refer to File Number SR-EMERALD-2023-04 and should be submitted on or before [insert date 21 days from publication in the Federal Register]. For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>56</sup>

Vanessa Countryman  
Secretary

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<sup>56</sup> 17 CFR 200.30-3(a)(12).

**Exhibit 5**

New text is underlined;  
 Deleted text is in [brackets]

**MIAX Emerald Options Exchange Fee Schedule**

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**6) Market Data Fees****a) MIAX Emerald Top of Market (“ToM”) and Complex Top of Market (“cToM”)**

<b>Distributor Type</b>	<b>ToM Monthly Fee</b>	<b>cToM Monthly Fee</b>
Internal Distributor	[\$1,250.00] <u>\$2,000.00</u>	[Fee waived for the Waiver Period] <u>\$2,000.00</u>
External Distributor	[\$1,750.00] <u>\$3,000.00</u>	[Fee waived for the Waiver Period] <u>\$3,000.00</u>

MIAX Emerald will assess Market Data Fees[ (as applicable)] to ToM and cToM on Internal and External Distributors in each month the Distributor is credentialed to use ToM or cToM in the production environment. A Distributor of MIAX Emerald data is any entity that receives a feed or file of data either directly from MIAX Emerald or indirectly through another entity and then distributes it either internally (within that entity) or externally (outside that entity). All Distributors are required to execute a MIAX Emerald Distributor Agreement. Market Data Fees for ToM and/or cToM, as applicable, will be reduced for new Distributors for the first month during which they subscribe to ToM and/or cToM, as applicable, based on the number of trading days that have been held during the month prior to the date on which they have been credentialed to use ToM and/or cToM, as applicable, in the production environment. Such new Distributors will be assessed a pro-rata percentage of the fees described above, which is the percentage of the number of trading days remaining in the affected calendar month as of the date on which they have been credentialed to use ToM and/or cToM in the production environment, divided by the total number of trading days in the affected calendar month.

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