



SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-100042; File No. SR-EMERALD-2024-15]

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

April 26, 2024.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),¹ and Rule 19b-4 thereunder,² notice is hereby given that on April 18, 2024, 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 (i) amend the fees for the MIAX Emerald Top of Market (“ToM”) data feed; and (ii) establish fees for the MIAX Emerald Complex Top of Market (“cToM”) data feed.

The text of the proposed rule change is available on the Exchange’s website at <https://www.miaxglobal.com/markets/us-options/all-options-exchanges/rule-filings>, at MIAX Emerald’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

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

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

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: (i) amend the fees for ToM; and (ii) establish fees for cToM. The ToM data feed contains top of book quotations based on options orders³ and quotes⁴ resting on the Exchange’s Simple Order Book⁵ as well as administrative messages.⁶ The cToM data feed includes the same types of information as ToM, but for Complex Orders⁷ on the Exchange’s Strategy Book.⁸ This information includes the Exchange’s best bid and offer for a complex strategy,⁹ with aggregate size, based on displayable orders in the complex strategy. The cToM data feed also provides subscribers with the following information: (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).

³ The term “order” means a firm commitment to buy or sell option contracts. See Exchange Rule 100.

⁴ 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.

⁵ The term “Simple Order Book” means the Exchange’s regular electronic book of orders and quotes. See Exchange Rule 518(a)(15).

⁶ See Fee Schedule, Section 6(a).

⁷ In sum, a “Complex Order” is “any order involving the concurrent purchase and/or sale of two or more different options in the same underlying security (the ‘legs’ or ‘components’ of the complex order), for the same account” See Exchange Rule 518(a)(5).

⁸ The “Strategy Book” is the Exchange’s electronic book of complex orders and complex quotes. See Exchange Rule 518(a)(17).

⁹ The term “complex strategy” means a particular combination of components and their ratios to one another. New complex strategies can be created as the result of the receipt of a complex order or by the Exchange for a complex strategy that is not currently in the System. The Exchange may limit the number of new complex strategies that may be in the System at a particular time and will communicate this limitation to Members via Regulatory Circular. See Exchange Rule 518(a)(6)

ToM subscribers are not required to subscribe to cToM, and cToM subscribers are not required to subscribe to ToM.

The Exchange notes that there is no requirement that any Member¹⁰ or market participant subscribe to either the ToM or cToM data feeds. Instead, a Member may choose to maintain subscriptions to ToM or cToM based on their trading strategies and individual business decisions. Moreover, persons (including broker-dealers) who subscribe to any exchange proprietary data feed must also have equivalent access to consolidated Options Information¹¹ from the Options Price Reporting Authority (“OPRA”) for the same classes or series of options that are included in the proprietary data feed (including for exclusively listed products), and proprietary data feeds cannot be used to meet that particular requirement. The proposed fees described below would not apply differently based upon the size or type of firm, but rather based upon the type of subscription 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.¹²

ToM

¹⁰ 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.

¹¹ The term “consolidated Options Information” means “consolidated Last Sale Reports combined with either consolidated Quotation Information or the BBO furnished by OPRA...” Access to consolidated Options Information is deemed “equivalent” if both kinds of information are equally accessible on the same terminal or work station. See Limited Liability Company Agreement of Options Price Reporting Authority, LLC (“OPRA Plan”), Section 5.2(c)(iii). The Exchange notes that this requirement under the OPRA Plan is also reiterated under the Cboe Global Markets Global Data Agreement and Cboe Global Markets North American Data Policies, which subscribers to any exchange proprietary product must sign and are subject to, respectively. Additionally, the Exchange’s Data Order Form (used for requesting the Exchange’s market data products) requires confirmation that the requesting market participant receives data from OPRA.

¹² The Exchange first filed the proposed fee change on December 28, 2022. See Securities Exchange Act Release No. 96625 (January 10, 2023), 88 FR 2688 (January 17, 2023) (SR-EMERALD-2022-37). After several withdrawals and re-filings, the Commission Staff suspended the proposed fees on August 3, 2023. See Securities Exchange Act Release No. 98051 (August 3, 2023), 88 FR 53937 (August 9, 2023) (SR-EMERALD-2023-13). On January 17, 2024, the Exchange withdrew the suspended proposed fee change. See Securities Exchange Act Release No. 99407 (January 22, 2024), 89 FR 5273 (January 26, 2024).

The Exchange currently charges a monthly fee of \$1,250 to Internal Distributors¹³ and \$1,750 to External Distributors. The Exchange proposes to charge a monthly fee of \$2,000 to Internal Distributors and \$3,000 to External Distributors. The proposed fee increases are intended to cover the Exchange's increasing costs with compiling and producing the ToM data feed described in the Exchange's Cost Analysis detailed below. The Exchange does not currently charge, nor does it now propose to charge any additional fees based on a Distributor's use of the ToM and cToM data feeds (e.g., displayed versus non-displayed use), redistribution fees, or individual per user fees.

cToM

The Exchange previously adopted rules governing the trading of Complex Orders on the MIAX Emerald System in 2018,¹⁴ ahead of the Exchange's planned launch, which took place on March 1, 2019. Shortly thereafter, the Exchange adopted the cToM data feed product and expressly waived fees for cToM to incentivize market participants to subscribe.¹⁵ In the five years since the Exchange launched operations and adopted Complex Order functionality, the Exchange has grown its monthly complex market share from 0% to 3.53% of the total electronic complex non-index volume executed on exchanges offering electronic complex functionality based on the month of January 2024.¹⁶ During that same period, the Exchange experienced a steady increase in the number of cToM subscribers. Until the Exchange initially filed to adopt

¹³ 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. See Fee Schedule, Section 6)a).

¹⁴ 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).

¹⁵ 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).

¹⁶ The Exchange notes that it receives complex market data for all U.S. options exchanges that offer complex functionality from direct feeds from OPRA.

cToM fees in July of 2021,¹⁷ the Exchange did not charge fees for subscriptions to the cToM data feed. The objective of this approach was to eliminate any fee-based barriers for Members when the Exchange first launched Complex Order functionality, which the Exchange believed was necessary to attract order flow as a relatively new exchange at that time. During that time, the Exchange absorbed all costs associated with compiling and disseminating the cToM data feed. The Exchange now proposes to establish fees for the cToM data feed to recoup its ongoing costs going forward, as described below.

The Exchange proposes to charge a monthly fee of \$2,000 to Internal Distributors and \$3,000 to External Distributors of the cToM data feed. The proposed fees are identical to those proposed herein for the ToM data feed. The Exchange proposes to assess Internal Distributors fees that are less than the fees assessed for External Distributors because External Distributors may monetize their receipt of the ToM and cToM data feeds by charging their customers fees for receipt of the Exchange's data. Internal Distributors do not have the same ability. Like the ToM data feed, the Exchange does not propose to adopt separate redistribution fees for the cToM data feed. However, the recipient of cToM data would be required to become a Distributor and would be subject to the applicable Distribution fees. Also like the ToM data feed, the Exchange does not propose to charge individual per user fees or any additional fees based on a subscriber's use of the cToM data feed (e.g., displayed versus non-displayed use).

The Exchange proposes to assess cToM fees to Internal and External Distributors in the same manner as it currently does for the ToM data feed. Each Distributor would be charged for each month it is credentialed to receive cToM in the Exchange's production environment. Also, fees for cToM will be reduced for new mid-month Distributors for the first month they subscribe. New mid-month cToM Distributors would be assessed a pro-rata percentage of the applicable

¹⁷ See Securities Exchange Act Release Nos. 92358 (July 9, 2021), 86 FR 37361 (July 15, 2021) (SR-EMERALD-2021-21); 98051 (August 3, 2023), 88 FR 53937 (August 9, 2023) (SR-EMERALD-2023-13) (Suspension of and Order Instituting Proceedings To Determine Whether To Approve or Disapprove Proposed Rule Change To Increase Fees for the ToM Market Data Product and Establish Fees for the cToM Market Data Product).

Distribution fee based on the percentage of the number of trading days remaining in the affected calendar month as of the date on which they have been first credentialed to receive cToM in the production environment, divided by the total number of trading days in the affected calendar month.

Minor, Non-Substantive Changes

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. This proposed change does not alter the operation of either fee.

Implementation

The proposed fee changes are immediately effective.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the provisions of Section 6(b)¹⁸ of the Act in general, and furthers the objectives of Section 6(b)(4)¹⁹ 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)²⁰ 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

¹⁸ 15 U.S.C. 78f.

¹⁹ 15 U.S.C. 78f(b)(4).

²⁰ 15 U.S.C. 78f(b)(5).

public interest, and, particularly, are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

In 2019, Commission staff published guidance suggesting the types of information that self-regulatory organizations (“SROs”) may use to demonstrate that their fee filings comply with the standards of the Exchange Act (the “Staff Guidance”).²¹ While the Exchange understands that the Staff Guidance does not create new legal obligations on SROs, the Staff 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. The Staff Guidance provides that in assessing the reasonableness of a fee, the Staff would consider whether the fee is constrained by significant competitive forces. To determine whether a proposed fee is constrained by significant competitive forces, the Staff Guidance further provides that the Staff would consider whether the evidence provided by an SRO in a Fee Filing proposal demonstrates (i) that there are reasonable substitutes for the product or service that is the subject of a proposed fee; (ii) that “platform” competition constrains the fee; and/or (iii) that the revenue and cost analysis provided by the SRO otherwise demonstrates that the proposed fee would not result in the SRO taking supra-competitive profits.²² The Exchange provides sufficient evidence below to support the findings that the proposed fees are reasonable because the projected revenue and cost analysis contained herein demonstrates that the proposed fees would not result in the Exchange taking supra-competitive profits.

As noted above, the Exchange also adopted the cToM data feed and expressly waived fees over two years to incentivize market participants to subscribe and make the Exchange’s cToM data more widely available.²³ In the five years since the Exchange launched operations and adopted Complex Order functionality, the Exchange has grown its monthly complex market

²¹ See Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), [available at https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees](https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees).

²² Id.

²³ See supra note 15.

share from 0% to 3.53% of the total electronic complex non-index volume executed on U.S. options exchanges offering complex functionality for the month of January 2024. 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.

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 address questions about market competition in the context of this filing because the proposed fees are 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,²⁴ and Rule 19b-4 thereunder,²⁵ with respect to the types of information SROs should provide when filing fee changes, and Section 6(b) of the Act,²⁶ which requires, among other

²⁴ 15 U.S.C. 78s(b)(1).

²⁵ 17 CFR 240.19b-4.

²⁶ 15 U.S.C. 78f(b).

things, that exchange fees be reasonable and equitably allocated,²⁷ not designed to permit unfair discrimination,²⁸ and that they do not impose a burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.²⁹ This proposal addresses those requirements, and the analysis and data in this section are designed to clearly and comprehensively show how they are met.

In 2019, the Exchange completed a study of its aggregate costs to produce market data and connectivity (the “Cost Analysis”).³⁰ The Cost 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 – transaction execution, market data, membership services, physical connectivity, and port access (which provide order entry, cancellation and modification functionality, risk functionality, the 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 (“cost drivers”).

As an initial step, the Exchange determined the total cost for the Exchange and its affiliated markets³¹ for each cost driver as part of its 2024 budget review process. The 2024 budget review is a company-wide process that occurs over the course of many months, includes meetings among senior management, department heads, and the Finance Team. Each department head is required to send a “bottom up” budget to the Finance Team allocating costs at the profit and loss account and vendor levels for the Exchange and its affiliated markets based on

²⁷ 15 U.S.C. 78f(b)(4).

²⁸ 15 U.S.C. 78f(b)(5).

²⁹ 15 U.S.C. 78f(b)(8).

³⁰ The Exchange frequently updates its Cost Analysis as strategic initiatives change, costs increase or decrease, and market participant needs and trading activity changes. The Exchange’s most recent Cost Analysis was conducted ahead of this filing.

³¹ The affiliated markets include Miami International Securities Exchange, LLC (“MIAX”); separately, the options and equities markets of MIAX PEARL, LLC (“MIAX Pearl”); and MIAX Emerald, LLC (“MIAX Emerald”).

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, simple only or simple and complex markets, auction functionality, etc.), which may impact message traffic, individual system architectures that impact platform size,³² 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. All of these factors result in different allocation percentages among the Exchange and its affiliated markets, i.e., the different percentages of the overall cost driver allocated to the Exchange and its affiliated markets will cause the dollar amount of the overall cost allocated among the Exchange and its affiliated markets to also differ. Because the Exchange's parent company currently owns and operates four separate and distinct marketplaces, the Exchange must determine the costs associated with each actual market – as opposed to the Exchange's parent company simply concluding that all cost drivers are the same at each individual marketplace and dividing total cost by four (4) (evenly for each marketplace). Rather, the Exchange's parent company determines an accurate cost for each marketplace, which results in different allocations and amounts across exchanges for the same cost drivers, due to the unique factors of each marketplace as described above. This allocation methodology also ensures that no cost would be allocated twice or double-counted between the Exchange and its affiliated markets. The Finance Team then consolidates the budget and sends it to senior management, including the Chief Financial Officer and Chief Executive Officer, for review and approval. Next, the budget is presented to the Board of Directors and the Finance and Audit Committees for each exchange for their approval. The above steps encompass the first step of the cost allocation process.

³² For example, MIAX maintains 24 matching engines, MIAX Pearl Options maintains 12 matching engines, MIAX Pearl Equities maintains 24 matching engines, and MIAX Emerald maintains 12 matching engines.

The next step involves determining what portion of the cost allocated to the Exchange pursuant to the above methodology is to be allocated to each core service, e.g., connectivity and ports, market data, and transaction services. The Exchange and its affiliated markets adopted an allocation methodology with thoughtful and consistently applied principles to guide how much of a particular cost amount allocated to the Exchange should be allocated within the Exchange to each core service. This is the final step in the cost allocation process and is applied to each of the cost drivers set forth below. 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 (for example, 61.9% of the data center total expense amount is allocated to 10Gb ULL connectivity), with smaller allocations to ToM and cToM (1.1% combined), and the remainder to the provision of other connectivity, ports, transaction execution, membership services and other market data services (37%). This next level of the allocation methodology at the individual exchange level also took into account factors similar to those set forth under the first step of the allocation methodology process described above, to determine the appropriate allocation to connectivity or market data versus allocations for other services. This 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 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 fees, fees for connectivity and port services, membership fees, regulatory fees, and market data fees. Accordingly, the Exchange must cover its expenses from

these five 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 cost-justified 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 further refined, 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. In turn, the Exchange allocated certain costs more to physical connectivity and others to ports, while certain costs were only allocated to such services at a very low percentage or not at all, using consistent allocation methodologies as described above. Based on this analysis, the Exchange estimates that the aggregate monthly cost to provide ToM and cToM data feeds is \$62,626 (the Exchange divided

the annual cost for each of ToM and cToM by 12 months, then added both numbers together), as further detailed below.

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 2.3% of its overall Human Resources cost to offering ToM and cToM data feeds).

COST DRIVERS	ALLOCATED ANNUAL COST^a	ALLOCATED MONTHLY COST^b	% OF ALL
Human Resources	\$509,350	\$42,446	2.3%
Connectivity (external fees, cabling, switches, etc.)	\$1,011	\$84	1.1%
Internet Services and External Market Data	\$0.00	\$0.00	0.0%
Data Center	\$16,624	\$1,385	1.1%
Hardware and Software Maintenance & Licenses	\$18,958	\$1,580	1.1%
Depreciation	\$17,853	\$1,488	0.5%
Allocated Shared Expenses	\$187,711	\$15,643	2.1%
TOTAL	\$751,507	\$62,626	2.0%
<p>a. The Annual Cost includes figures rounded to the nearest dollar.</p> <p>b. The Monthly Cost was determined by dividing the Annual Cost for each line item by twelve (12) months and rounding up or down to the nearest dollar.</p>			

Below are additional details regarding each of the line-item costs considered by the Exchange to be related to offering ToM and cToM. While some costs were attempted to be allocated as equally as possible among the Exchange and its affiliated markets, the Exchange notes that some of its cost allocation percentages for certain cost drivers differ when compared to the same cost drivers for the Exchange’s affiliated market, MIAX, in its similar proposed fee change for ToM and cToM. This is because the Exchange’s cost allocation methodology utilizes the actual projected costs of the Exchange (which are specific to the Exchange and are independent of the costs projected and utilized by the Exchange’s affiliated markets) to determine its actual costs, which may vary across the Exchange and its affiliated markets based

on factors that are unique to each marketplace. The Exchange provides additional explanation below (including the reason for the deviation) for the significant differences, if any.

The Exchange also notes that expenses included in its 2024 fiscal year budget and this proposal are generally higher than its 2023 fiscal year budget and Cost Analysis included in prior filings. This is due to a number of factors, such as, critical vendors and suppliers increasing costs they charge the Exchange, significant exchange staff headcount increases, increased data center costs from the Exchange's data center providers in multiple locations and facilities, higher technology and communications costs, planned hardware refreshes, and system capacity upgrades that increase depreciation expense. Specifically, with regard to employee compensation, the 2024 fiscal year budget includes additional expenses related to increased headcount and new hires that are needed to support the Exchange as it continues to grow (the Exchange and its affiliated companies are projected to hire over 60 additional staff in 2024). Hardware and software expenses have also increased primarily due to price increases from critical vendors and equipment suppliers. Further, the Exchange budgeted for additional hardware and software needs to support the Exchange's continued growth and expansion. Depreciation and amortization have likewise increased due to recent and planned refreshes in Exchange hardware and software. This new equipment and software then becomes depreciable, as described below. Data center costs have also increased due the following: the Exchange expanding its footprint within its data center; and the data center vendor increasing the costs it charges the Exchange. Lastly, allocated shared expenses have increased due to the overall budgeted increase in costs from 2023 to 2024 necessary to operate and support the Exchange as described below.

Human Resources

The Exchange notes that it and its affiliated markets anticipate that by year-end 2024, there will be 289 employees (excluding employees at non-options/equities exchange subsidiaries of Miami International Holdings, Inc. ("MIH"), the holding company of the Exchange and its

affiliated markets), 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 each market's individual Human Resources expense. Then, 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.

For personnel costs (Human Resources), the Exchange calculated an allocation of employee time for employees whose functions include providing and maintaining ToM and cToM data feeds and performance thereof (primarily the Exchange's network infrastructure team, which spends a portion of their time performing functions necessary to provide market data). As described more fully above, the Exchange's parent company allocates costs to the Exchange and its affiliated markets and then a portion of the Human Resources costs allocated to the Exchange is then allocated to market data. From that portion allocated to the Exchange that applied to market data, the Exchange then allocated a weighted average of 2.1% of each employee's time from the above group to ToM and cToM data feeds (which excludes an allocation for the recently hired Head of Data Services for the Exchange and its affiliates).

The Exchange also allocated Human Resources costs to provide ToM and cToM to a limited subset of personnel with ancillary functions related to establishing and maintaining such market data feeds (such as information security, sales, membership, and finance personnel). The Exchange allocated cost on an employee-by-employee basis (i.e., only including those personnel who support functions related to providing market data feeds) and then applied a smaller allocation to such employees' time to ToM and cToM (less than 1.6%, which includes an

allocation for the Head of Data Services). This other group of personnel with a smaller allocation of Human Resources costs also have a direct nexus to providing ToM and cToM, whether it is a sales person selling a market data feed, finance personnel billing for market data feeds or providing budget analysis, or information security ensuring that such market data feeds are secure and adequately defended from an outside intrusion.

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 market data feeds, and confirming that the proposed allocations were reasonable based on an understanding of the percentage of time such employees devote to those tasks. This includes personnel from the Exchange departments that are predominately involved in providing ToM and cToM data feeds: Business Systems Development, Trading Systems Development, Systems Operations and Network Monitoring, Network and Data Center Operations, Listings, Trading Operations, and Project Management. Again, the Exchange allocated 2.1% of each of their employee's time assigned to the Exchange for ToM and cToM, as stated above. Employees from these departments perform numerous functions to support ToM and cToM data feeds, such as the configuration and maintenance of the hardware necessary to support the ToM and cToM data feeds. This hardware includes servers, routers, switches, firewalls, and monitoring devices. These employees also perform software upgrades, vulnerability assessments, remediation and patch installs, equipment configuration and hardening, as well as performance and capacity management. These employees also engage in research and development analysis for equipment and software supporting ToM and cToM data feeds and design, and support the development and on-going maintenance of internally-developed applications as well as data capture and analysis, and Member and internal Exchange reports related to network and system performance. The above list of employee functions is not exhaustive of all the functions performed by Exchange employees to support ToM and cToM, but illustrates the breath of functions those employees perform in support of the above cost and time allocations.

Lastly, the Exchange notes that senior level executives' time was only allocated to the ToM and cToM related Human Resources costs to the extent that they are involved in overseeing tasks related to providing market data. 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.

Connectivity (external fees, cabling, switches, etc.)³³

The Connectivity cost driver includes cabling and switches required to generate and disseminate the ToM and cToM data feeds and operate the Exchange. The Connectivity cost driver is more narrowly focused on technology used to complete Member subscriptions to ToM and cToM and 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).³⁴

Internet Services and External Market Data

The next cost driver consists of internet services and external market data. Internet services includes third-party service providers that provide the internet, fiber and bandwidth connections between the Exchange's networks, primary and secondary data centers, and office locations in Princeton and Miami. External market data includes fees paid to third parties,

³³ This cost driver was titled "Network Infrastructure" in prior proposals. The Exchange has updated this section to now be in line with its similar cost analysis and cost driver descriptions for other non-transaction fee filings. See, e.g., Securities Exchange Act Release No. 99475 (February 5, 2024), 89 FR 9223 (February 9, 2024) (SR-EMERALD-2024-03).

³⁴ The Exchange understands that the Investors Exchange, Inc. ("IEX") and MEMX LLC ("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 Nos. 94630 (April 7, 2022), 87 FR 21945, at page 21949 (April 13, 2022) (SR-IEX-2022-02) and 97130 (March 13, 2023), 88 FR 16491 (March 17, 2023) (SR-MEMX-2023-04). 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 Connectivity cost driver to market data based on a percentage of overall cost, not on a per server basis.

including other exchanges, to receive market data. The Exchange allocate any costs associated with internet services or external market data to the ToM and cToM data feeds.

Data Center

Data Center costs includes an allocation of the costs the Exchange incurs to provide ToM and cToM in the third-party data centers where it maintains its equipment (such as dedicated space, security services, cooling and power). 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. As the Data Center costs are primarily for space, power, and cooling of servers, the Exchange allocated 1.1% 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 the Connectivity cost driver.

Hardware and Software Maintenance and Licenses

Hardware and Software Maintenance and Licenses includes hardware and software licenses used to operate and monitor physical assets necessary to offer the ToM and cToM data feeds.³⁵ Because the hardware and software license fees are correlated to the servers used by the Exchange, the Exchange again applied an allocation of 1.1% of its costs for Hardware and Software Maintenance and Licenses to the ToM and cToM data feeds. The Exchange notes that this allocation is less than MIAX as MIAX allocated 1.3% of its Hardware and Software Maintenance and License expense to ToM and cToM, while MIAX Emerald allocated 1.1% of its Hardware and Software Maintenance and License expense to ToM and cToM. MIAX's allocation results in a slightly higher dollar amount of \$8,000 per year (or approximately \$667 per month, when dividing the annual cost difference by 12 months and rounding to the nearest dollar) compared to the annual cost of MIAX Emerald for its Hardware and Software

³⁵ This expense may be less than the Exchange's affiliated markets, specifically MIAX. This is because each market may maintain and utilize a different amount of hardware and software based on its market model and infrastructure needs. The Exchange allocated a percentage of the overall cost based on actual amounts of hardware and software utilized by that market, which resulted in different cost allocations and dollar amounts.

Maintenance and License cost driver. This is because MIAX is in the process of replacing and upgrading various hardware and software used to operate its options trading platform in order to maintain premium network performance, including dissemination of ToM and cToM. At the time of this filing, MIAX is undergoing a major hardware refresh, replacing older hardware with new hardware. This hardware includes servers, network switches, cables, optics, protocol data units, and cabinets, to maintain a state-of-the-art technology platform. Because of the timing of the hardware refresh with the timing of this filing, MIAX has a slightly higher expense than MIAX Emerald.

Depreciation

All physical assets, software, and hardware used to provide ToM and cToM, which also includes assets used for testing and monitoring of Exchange infrastructure to provide market data, were valued at cost, and depreciated or leased over periods ranging from three to five years. Thus, the depreciation cost primarily relates to servers necessary to operate the Exchange, some of which are owned by the Exchange and some of which are leased by the Exchange in order to allow efficient periodic technology refreshes. The vast majority of the software the Exchange uses for its operations to generate and disseminate the ToM and cToM data feeds has been developed in-house over an extended period. This software development also requires quality assurance and thorough testing to ensure the software works as intended. The Exchange also included in the Depreciation cost driver certain budgeted improvements that the Exchange intends to capitalize and depreciate with respect to ToM and cToM 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 ToM and cToM. As noted above, the Exchange allocated 0.5% of its allocated depreciation costs to providing ToM and cToM.

The Exchange notes that this allocation differs from its affiliated market, MIAX, 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. For example, the Exchange notes that the percentages it and its affiliate, MIA X, allocated to the depreciation of software and hardware used to generate and disseminate their respective ToM and cToM data feeds are similar (0.8% for MIA X and 0.5% for MIA X Emerald). However, MIA X's dollar amount is greater than that of MIA X Emerald by approximately \$17,000 per year (albeit a relatively small amount of approximately \$1,415 per month, when rounding to the nearest dollar). This is due to two primary factors. First, MIA X has undergone a technology refresh since the time MIA X Emerald launched in February 2019, leading to it having more hardware and software that is subject to depreciation. Second, MIA X maintains 24 matching engines while MIA X Emerald maintains only 12 matching engines. This also results in more of MIA X's hardware and software being subject to depreciation than MIA X Emerald's hardware and software due to the greater amount of equipment and software necessary to support the greater number of matching engines on MIA X.

Allocated Shared Expenses

Finally, as with other exchange products and services, a portion of general shared expenses was allocated to the provision of ToM and cToM data feeds. These general shared costs are integral to exchange operations, including its ability to provide ToM and cToM. Costs included in general shared expenses 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. Similarly, the cost of paying directors to serve on the Exchange's Board of Directors is also included in the Exchange's general shared expense cost driver.³⁶ These general shared expenses are incurred by the Exchange's parent company, MIH,

³⁶ The Exchange notes that MEMX allocated a precise amount of 10% of the overall cost for directors in a similar non-transaction fee filing. See Securities Exchange Act Release No. 97130 (March 13, 2023), 88 FR 16491 (March 17, 2023) (SR-MEMX-2023-04). The Exchange does not calculate its expenses at that granular a level. Instead, director costs are included as part of the overall general allocation.

as a direct result of operating the Exchange and its affiliated markets.

The Exchange employed a process to determine a reasonable percentage to allocate general shared expenses to ToM and cToM pursuant to its multi-layered allocation process. First, general expenses were allocated among the Exchange and affiliated markets as described above. Then, the general shared expense assigned to the Exchange was allocated across core services of the Exchange, including market data. Then, these costs were further allocated to sub-categories within the final categories, i.e., ToM and cToM as sub-categories of market data. In determining the percentage of general shared expenses allocated to market data that ultimately apply to ToM and cToM, the Exchange looked at the percentage allocations of each of the cost drivers and determined a reasonable allocation percentage. The Exchange also held meetings with senior management, department heads, and the Finance Team to determine the proper amount of the shared general expense to allocate to ToM and cToM. The Exchange, therefore, believes it is reasonable to assign an allocation, in the range of allocations for other cost drivers, while continuing to ensure that this expense is only allocated once. Again, the general shared expenses are incurred by the Exchange's parent company as a result of operating the Exchange and its affiliated markets and it is therefore reasonable to allocate a percentage of those expenses to the Exchange and ultimately to specific product offerings such as ToM and cToM.

Again, a portion of all shared expenses were allocated to the Exchange (and its affiliated markets) which, in turn, allocated a portion of that overall allocation to all market data products offered by the Exchange. The Exchange then allocated 2.1% of the portion allocated to market data to ToM and cToM. The Exchange believes this allocation percentage is reasonable because, while the overall dollar amount may be higher than other cost drivers, the 2.1% is based on and in line with the percentage allocations of each of the Exchange's other cost drivers. The percentage allocated to ToM and cToM also reflects its importance to the Exchange's strategy and necessity towards the nature of the Exchange's overall operations, which is to provide a resilient, highly deterministic trading system that relies on faster market data feeds than the

Exchange's competitors to maintain premium performance. This allocation reflects the Exchange's focus on providing and maintaining high performance market data services, of which ToM and cToM are main contributors.

The Exchange notes that this allocation differs from its affiliated market, MIAX, due to a number of factors, such as the increase in overall headcount, thus providing a higher contribution on MIAX to the depreciated cost. The Exchange notes that the percentages it and its affiliate, MIAX, allocated to this cost driver are similar (2.5% for MIAX and 2.1% for MIAX Emerald). However, MIAX's dollar amount is greater than that of MIAX Emerald by \$38,096 per year (albeit a relatively small amount of approximately \$3,174 per month, when rounding to the nearest dollar). This is due primarily to significant exchange staff headcount increases.³⁷ As mentioned above, the 2024 fiscal year budget includes additional expenses related to increased headcount and new hires that are needed to support the Exchange as it continues to grow (with a projected 60 additional staff in 2024). Lastly, allocated shared expenses have increased due to the overall budgeted increase in costs from 2023 to 2024 necessary to operate and support the Exchange and its affiliated markets.

* * * * *

Approximate Cost for ToM and cToM Per Month

After determining the approximate allocated monthly cost related to ToM and cToM combined, the total monthly cost for ToM and cToM of \$62,626 was divided by the number of total subscribers to ToM and cToM that the Exchange maintained in August 2023 (29 Internal Distributors + 5 External Distributors = 34 total Distributors),³⁸ to arrive at a cost of

³⁷ The Exchange notes that this reference to increased headcount is used here to explain why MIAX's dollar amount of its allocated shared expense is greater than that of MIAX Emerald. A similar reference is not included in the above discussion of the Human Resources cost driver because the description of that cost driver does not include a similar comparison.

³⁸ The used August 2023 subscription data because that was the last full month the fees proposed herein for ToM and cToM were charged, before the Exchange's prior filing to adopt the same fees was suspended by the Commission. See *supra* note 12. While there has been no material overall change to the number of subscriptions since August 2023, the Exchange notes that the number of subscriptions may fluctuate and demand may change when fees are removed and reinstated. Accordingly, the Exchange believes that, in

approximately \$1,842 per month per subscription (rounded to the nearest dollar). Due to the nature of this particular cost, this allocation methodology results in an allocation among the Exchange and its affiliated markets based on set quantifiable criteria, i.e., actual number of ToM and cToM subscribers.

Cost Analysis – Additional Discussion

In conducting its Cost Analysis, the Exchange did not allocate any of its expenses in full to any core service (including market data) and did not double-count any expenses. Instead, as described above, the Exchange allocated applicable cost drivers across its core services and used the same Cost Analysis to form the basis of this proposal and the filings the Exchange recently submitted proposing fees for certain connectivity and ports offered by the Exchange. For instance, in calculating the Human Resources expenses to be allocated to market data based upon the above described methodology, the Exchange has a team of employees dedicated to network infrastructure and with respect to such employees the Exchange allocated network infrastructure personnel with a commensurate percentage of the cost of such personnel (5.9%) given their focus on functions necessary to provide market data. The salaries of those same personnel were allocated only 2.1% to ToM and cToM and the remaining 97.9% was allocated to other market data products offered by the Exchange (MOR, AIS, etc.), connectivity services, port services, transaction services, and membership services. The Exchange did not allocate any other Human Resources expense for providing market data to any other employee group, outside of a smaller allocation of 1.6% for ToM and cToM of the cost associated with certain specified personnel who work closely with and support network infrastructure personnel.

In total, the Exchange allocated 2.3% of its personnel costs (Human Resources) to providing ToM and cToM. In turn, the Exchange allocated the remaining 97.7% of its Human Resources expense to membership services, transaction services, connectivity services, port

order to obtain an accurate measure of actual demand for fee-liable subscriptions, the Exchange looked to the last month that the fees were in place prior to suspension, which was August 2023.

services and other market data products. Thus, again, 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.

As another example, the Exchange allocated depreciation expense to all core services, including market data, but in different amounts. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the network. Without this equipment, the Exchange would not be able to operate the network and provide ToM and cToM data feeds to its Members and their customers. However, the Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing ToM and cToM, but instead allocated approximately 0.5% of the Exchange's overall depreciation and amortization expense to ToM and cToM combined. The Exchange allocated the remaining depreciation and amortization expense (99.5%) toward the cost of providing transaction services, membership services, connectivity services, port services, and other market data products.

The Exchange notes that its revenue estimates are based on projections across all potential revenue streams and will only be realized to the extent such revenue streams actually produce the revenue estimated. The Exchange does not yet know whether such expectations will be realized. For instance, in order to generate the revenue expected from ToM and cToM, the Exchange will have to be successful in retaining existing clients that wish to maintain subscriptions to those market data feeds or in obtaining new clients that will purchase such services. Similarly, the Exchange will have to be successful in retaining a positive net capture on transaction fees in order to realize the anticipated revenue from transaction pricing.

The Exchange notes that the Cost Analysis is based on the Exchange's 2024 fiscal year of operations and projections. It is possible, however, that actual costs may be higher or lower. To

the extent the Exchange sees growth in use of market data services it will receive additional revenue to offset future cost increases. However, if use of market data services 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 may propose to decrease fees in the event that revenue materially exceeds our 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 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 our 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.

Projected Revenue³⁹

The proposed fees will allow the Exchange to cover certain costs incurred by the Exchange associated with 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 routinely works to improve the performance of the network's hardware and software. The costs associated with maintaining and enhancing a state-

³⁹ For purposes of calculating projected annualized 2024 revenue for ToM and cToM, the Exchange used monthly revenues for August 2023, the last month the Exchange billed at the proposed rates before the Commission suspended the earlier filing. *Id.*

of-the-art exchange network is a significant expense for the Exchange, and thus the Exchange believes that it is reasonable and appropriate to help offset those costs by amending fees for market data subscribers. Subscribers, particularly those of ToM and cToM, expect the Exchange to provide this level of support so they continue to receive the performance they expect. This differentiates the Exchange from its competitors. As detailed above, the Exchange has five primary sources of revenue that it can potentially use to fund its operations: transaction fees, fees for connectivity services, membership and regulatory fees, and market data fees. Accordingly, the Exchange must cover its expenses from these five primary sources of revenue.

The Exchange's Cost Analysis estimates the annual cost to provide ToM and cToM will equal \$751,507. Based on current ToM and cToM subscribers, the Exchange would generate annual revenue of approximately \$872,880 for ToM and cToM combined.⁴⁰ The Exchange believes this represents a modest profit of 13.9% when compared to the cost of providing ToM and cToM data feeds.

Based on the above discussion, the Exchange believes that even if the Exchange earns the above revenue or incrementally more or less, the proposed fees are fair and reasonable because they will not result in pricing that deviates from that of other exchanges or a supra-competitive profit, when comparing the total expense of the Exchange associated with providing ToM and cToM data feeds versus the total projected revenue of the Exchange associated with ToM and cToM.

The Exchange also notes that the resultant profit margin differs slightly from the profit margins set forth in a similar fee filing by its affiliated market, MIAX. This is not atypical among exchanges and is due to a number of factors that differ between these two markets, including: different market models, market structures, and product offerings (price-time, pro-

⁴⁰ The Exchange notes that the total revenue number of \$872,880 does not equal the full monthly fee multiplied by the total number of Distributors, due to a new Distributor first purchasing a ToM and cToM data feed mid-month and having their first month's fee(s) pro-rated for External Distribution, pursuant to Section 6(a) of the Exchange Fee Schedule.

rata, simple, and complex); different pricing models; different number of market participants and connectivity subscribers; different maintenance and operations costs, as described in the cost allocation methodology above; different technical architecture (e.g., the number of matching engines per exchange, i.e., MIAX maintains 24 matching engines while MIAX Emerald maintains only 12 matching engines); and different maturity phase of MIAX and its affiliated markets (i.e., start-up versus growth versus more mature). All of these factors contribute to a unique and differing level of profit margin per exchange.

Further, MIAX and MIAX Emerald propose to charge the same rates for their respective ToM and cToM data feeds, which are comparable to, or lower than, similar fees for similar products charged by competing exchanges. For example, for Internal Distributors of ToM and cToM, the Exchange proposes a lower fee than the fee charged by ISE for ISE's Top Quote Feed (\$2,000 for the Exchange vs. \$3,000 for ISE).⁴¹ NYSE Arca charges even higher fees for the NYSE Arca Options Top Feed than the Exchange's proposed fees (\$2,000 for the Exchange vs. \$3,000 per month plus an additional \$2,000 for redistribution on NYSE Arca).⁴² Accordingly, the Exchange believes that comparable and competitive pricing are key factors in determining whether a proposed fee meets the requirements of the Act, regardless of whether that same fee across the Exchange's affiliated markets leads to slightly different profit margins due to factors outside of the Exchange's control (i.e., more subscribers to ToM and/or cToM on MIAX or MIAX Emerald and vice versa).

⁴¹ 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).

⁴² 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.

The Exchange also reiterates that prior to July of 2021, the month in which it first proposed to adopt fees for cToM, the Exchange did not charge 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, IEX and MEMX, which are currently each operating only one exchange, in their recent non-transaction fee filings 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 that result from sharing costs across multiple platforms.⁴³ The Exchange and its affiliated markets often share a single cost, which results in cost efficiencies that can cause a broader gap between the allocated cost amount and projected revenue, even though the fee levels being proposed are lower or competitive with 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 should consider whether the proposed fee level is comparable to, or competitive 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 Commission Staff is making determinations as to appropriate profit margins, the Exchange believes that the Commission should be clear to all market participants as to what they have determined is an appropriate profit margin and should apply such

⁴³ 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.

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 are used to justify fees increases.

Accordingly, while the Exchange is supportive of transparency around costs and potential margins (applied across all exchanges), 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 – or seeking to earn – supra-competitive profits, the standard set forth in the Staff Guidance. The Exchange believes the Cost Analysis and related projections in this filing demonstrate this fact.

Reasonableness

Overall. With regard to reasonableness, the Exchange understands that the Commission has traditionally taken a market-based approach to examine whether the exchange 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 exchange 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 exchange taking supra-competitive profits. If the exchange

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 exchange 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 \$872,880, representing a potential mark-up of just 13.9% 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 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.

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.⁴⁴

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

⁴⁴ See *supra* notes 41 and 42.

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 and not unfairly discriminatory 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 and not unfairly discriminatory 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”).⁴⁵ 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.⁴⁶ External Distributors may distribute the Exchange’s market data to persons who are not officers, employees or affiliates of the External Distributor,⁴⁷ 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 ToM and 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

⁴⁵ See Exchange Data Agreement, available at <https://www.miaxglobal.com/markets/us-options/all-options/market-data-vendor-agreements>.

⁴⁶ See id.

⁴⁷ See id.

Market Data Policies.⁴⁸ 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.

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

In accordance with Section 6(b)(8) of the Act,⁴⁹ 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

⁴⁸ See Section 6 of the Exchange's Market Data Policies, available at https://www.miaxglobal.com/sites/default/files/page-files/MIAX_Exchange_Group_Market_Data_Policies_07202021.pdf.

⁴⁹ 15 U.S.C. 78f(b)(8).

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 exchanges 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.⁵⁰ 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.

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,⁵¹ and Rule 19b-4(f)(2)⁵² 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,

⁵⁰ See *supra* notes 41 and 42.

⁵¹ 15 U.S.C. 78s(b)(3)(A)(ii).

⁵² 17 CFR 240.19b-4(f)(2).

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 (<https://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include file number SR-EMERALD-2024-15 on the subject line.

Paper Comments:

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

All submissions should refer to file number SR-EMERALD-2024-15. This file number should be included on the subject line if email 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 website (<https://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 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office

of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to file number SR-EMERALD-2024-15 and should be submitted on or before [INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.⁵³

Sherry R. Haywood,

Assistant Secretary.

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