

Required fields are shown with yellow backgrounds and asterisks.

Page 1 of * 71

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

File No. * SR 2021 - * 44

Amendment No. (req. for Amendments *)

Filing by MIAX Emerald, LLC

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

Initial * <input checked="" type="checkbox"/>	Amendment * <input type="checkbox"/>	Withdrawal <input type="checkbox"/>	Section 19(b)(2) * <input type="checkbox"/>	Section 19(b)(3)(A) * <input checked="" type="checkbox"/>	Section 19(b)(3)(B) * <input type="checkbox"/>
---	--	---	---	---	--

Pilot <input type="checkbox"/>	Extension of Time Period for Commission Action * <input type="checkbox"/>	Date Expires * <input type="text"/>
--	---	---

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 establish cToM 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 12/10/2021 (Title *)

By Michael Slade (Name *) AVP, Associate Counsel

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: 2021.12.10
15:58:45 -05'00'

Required fields are shown with yellow backgrounds and astericks.

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

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

Form 19b-4 Information *

Add Remove View

SR-EMERALD-2021-44 - 19b4 cToM.

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 *

Add Remove View

SR-EMERALD-2021-44 - 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 *

Add Remove View

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

Add Remove View

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

Add Remove View

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

Add Remove View

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

Add Remove View

SR-EMERALD-2021-44 - Exhibit 5 cToM.

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

Add Remove View

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”)¹ and Rule 19b-4 thereunder,² proposes to amend the MIAX Emerald Fee Schedule (the “Fee Schedule”) to establish fees for the market data product known as 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 Exchange Board of Directors on January 28, 2021. 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 Michael Slade, Assistant Vice President, Associate Counsel, at (609) 897-8499.

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

a. Purpose

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

The Exchange proposes to amend Section 6(a) of the Fee Schedule to establish fees for the cToM data product. The Exchange initially filed this proposal on June 30, 2021 with the proposed fees to be effective beginning July 1, 2021 (“First Proposed Rule Change”).³ The First Proposed Rule Change was published for comment in the Federal Register on July 15, 2021.⁴ Although the Commission did not receive any comment letters on the First Proposed Rule Change, on August 27, 2021, the Commission issued its Suspension of and Order Instituting Proceedings to Determine Whether to Approve or Disapprove Proposed Rule Changes to Establish Fees for the Exchanges’ cToM Market Data Products (relating to the First Proposed Rule Change and a similar filing by the Exchange’s affiliate, Miami International Securities Exchange, LLC (“MIAX”), to also adopt cToM fees).⁵ The Exchange withdrew the First Proposed Rule Change on September 30, 2021⁶ and re-submitted the proposal, with the proposed fee changes being immediately effective (“Second Proposed Rule Change”).⁷ The Second Proposed Rule Change provided additional justification for the proposed fee changes and addressed comments provided by the Commission Staff. On October 14, 2021, the Exchange withdrew the Second Proposed Rule Change and submitted its proposal to adopt cToM fees to again provide additional justification for the proposed fee changes and address comments

³ See Securities Exchange Act Release No. 92358 (July 9, 2021), 86 FR 37361 (July 15, 2021) (SR-EMERALD-2021-21).

⁴ Id.

⁵ See Securities Exchange Act Release No. 92789 (August 27, 2021), 86 FR 49364 (September 2, 2021) (SR-MIAX-2021-28, SR-EMERALD-2021-21) (the “Suspension Order”).

⁶ See Securities Exchange Act Release No. 93471 (October 29, 2021), 86 FR 60947 (November 4, 2021).

⁷ See SR-EMERALD-2021-32.

provided by the Commission Staff (“Third Proposed Rule Change”).⁸ The Third Proposed Rule Change was published for comment in the Federal Register on November 1, 2021.⁹ Although the Commission did not again receive any comment letters on the Third Proposed Rule Change, the Exchange withdrew the Third Proposed Rule Change on December 10, 2021 and now submits this proposal for immediate effectiveness (“Fourth Proposed Rule Change”). This Fourth Proposed Rule Change meaningfully attempts to provide additional justification and explanation for the proposed fee changes in response to a telephone conversation with Commission Staff on December 7, 2021 relating to the Third Proposed Rule Change.

Background

The Exchange previously adopted rules governing the trading of Complex Orders¹⁰ on the Emerald System¹¹ in 2018,¹² ahead of the Exchange’s planned launch, which took place on March 1, 2019. Shortly thereafter, the Exchange also adopted the market data product cToM and expressly waived fees for cToM to provide an incentive to prospective market participants to

⁸ Securities Exchange Act Release No. 93427 (October 26, 2021), 86 FR 60310 (November 1, 2021) (SR-EMERALD-2021-34).

⁹ Id.

¹⁰ See Exchange Rule 518(a)(5) for the definition of Complex Orders.

¹¹ The term “System” means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

¹² See Securities Exchange Act Release Nos. 84891 (December 20, 2018), 83 FR 67421 (December 28, 2018) (In the Matter of the Application of MIA X 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).

subscribe to that market data feed.¹³ The Exchange has not charged fees to cToM subscribers in the nearly three years since it was first available for subscription.

In summary, cToM provides subscribers with the same information as the MIAX Emerald Top of Market (“ToM”) data product as it relates to the Strategy Book¹⁴, i.e., the Exchange’s best bid and offer for a complex strategy, with aggregate size, based on displayable order and quoting interest 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 a distinct market data product from ToM. ToM subscribers are not required to subscribe to cToM, and cToM subscribers are not required to subscribe to ToM.¹⁵

Proposal

The Exchange now proposes to amend Section 6)a) of the Fee Schedule to charge monthly fees to Distributors¹⁶ of cToM. Specifically, the Exchange proposes to assess Internal Distributors \$1,250 per month and External Distributors \$1,750 per month for the cToM data

¹³ 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).

¹⁴ The “Strategy Book” is the Exchange’s electronic book of complex orders and complex quotes. See Exchange Rule 518(a)(17).

¹⁵ See supra note 13.

¹⁶ 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 Section 6)a) of the Fee Schedule.

feed.¹⁷ The Exchange notes that the proposed monthly cToM fees for Internal and External Distributor are the same prices that the Exchange charges for its ToM data product and are identical to the prices the Exchange's affiliate, MIAX, proposes to charge for its cToM product.

Like it does today for ToM, the Exchange proposes to assess cToM fees on Internal and External Distributors in each month the Distributor is credentialed to use cToM in the production environment. Also, like 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. Such new Distributors will be assessed a pro-rata percentage of the fees 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 believes that other exchange's fees for complex market data are useful examples and provides the below table for comparison purposes only to show how the Exchange's proposed fees compare to fees currently charged by other options exchanges for similar data. As shown by the below table, the Exchange's proposed fees similar to or less than fees charged for similar data products provided by other options exchanges.

Exchange	Monthly Fee
MIAX Emerald (as proposed)	\$1,250 – Internal Distributor

¹⁷ The Exchange also proposes to make a minor related change to remove the phrase “(as applicable)” from the explanatory paragraph in Section 6)a).

	\$1,750 – External Distributor
NYSE American, LLC (“Amex”) ¹⁸	\$1,500 Access Fee \$1,000 Redistribution Fee
NYSE Arca, Inc. (“Arca”) ¹⁹	\$1,500 Access Fee \$1,000 Redistribution Fee
NASDAQ PHLX LLC (“PHLX”) ²⁰	\$3,000 – Internal Distributor \$3,500 – External Distributor

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 corrective edit. In particular, the Exchange proposes to delete 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 also not the exclusive source for Complex Order information from the Exchange and market participants may choose to subscribe to the Exchange’s other data products to receive such information. It is a business decision of market participants whether to subscribe to the cToM data product or not. Market participants that choose not to subscribe to cToM can derive much, if not all, of the same information provided in the cToM feed from other Exchange

¹⁸ See NYSE American Options Proprietary Market Data Fees, American Options Complex Fees, at https://www.nyse.com/publicdocs/nyse/data/NYSE_American_Options_Market_Data_Fee_Schedule.pdf.

¹⁹ See NYSE Arca Options Proprietary Market Data Fees, Arca Options Complex Fees, at https://www.nyse.com/publicdocs/nyse/data/NYSE_Arca_Options_Proprietary_Data_Fee_Schedule.pdf.

²⁰ See PHLX Price List – U.S. Derivatives Data, PHLX Orders Fees, at <http://www.nasdaqtrader.com/Trader.aspx?id=DPPriceListOptions#PHLX>.

sources, including, for example, the MIAX Emerald Order Feed (“MOR”).²¹ The following cToM information is provided to subscribers of MOR: the Exchange’s best bid and offer for a complex strategy, with aggregate size, based on displayable order and quoting interest 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 the cToM information contained in MOR, complex strategy last sale information can be derived from the Exchange’s ToM feed. Specifically, market participants may deduce that last sale information for multiple trades in related options series that are disseminated via the ToM feed with the same timestamp are likely part of a Complex Order transaction and last sale.

Implementation

The proposed rule change is immediately effective.

b. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act²² in general, and furthers the objectives of Section 6(b)(4) of the Act²³ in particular, in that it is an equitable allocation of reasonable dues, fees and other charges among its members and issuers and other persons using its facilities. The Exchange also believes the

²¹ See MIAX website, Market Data & Offerings, at <https://www.miaxoptions.com/market-data-offerings> (last visited December 10, 2021). 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.

²² 15 U.S.C. 78f(b).

²³ 15 U.S.C. 78f(b)(4) and (5).

proposal furthers the objectives of Section 6(b)(5) of the Act in that it is designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public interest and is not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

The Proposed Fees will not Result in a Supra-Competitive Profit

The Exchange believes that exchanges, in setting fees of all types, should meet very high standards of transparency to demonstrate why each new fee or fee increase meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange sets certain non-transaction fees, including market data fees. The Exchange believes that it is important to demonstrate that these fees are based on its costs to provide these products and reasonable business needs.

In its Guidance, the Commission Staff stated that, “[a]s an initial step in assessing the reasonableness of a fee, staff considers whether the fee is constrained by significant competitive forces.”²⁴ The Commission Staff Guidance further states that, “... even where an SRO cannot demonstrate, or does not assert, that significant competitive forces constrain the fee at issue, a cost-based discussion may be an alternative basis upon which to show consistency with the Exchange Act.”²⁵ In its Guidance, the Commission staff further states that, “[i]f an SRO seeks to support its claims that a proposed fee is fair and reasonable because it will permit recovery of the

²⁴ See Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), at <https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees> (the “Guidance”).

²⁵ Id.

SRO's costs, or will not result in excessive pricing or supracompetitive profit, specific information, including quantitative information, should be provided to support that argument."²⁶

The Exchange does not assert that the proposed fees are constrained by competitive forces.

Rather, the Exchange asserts that the proposed fees are reasonable because they will permit recovery of the Exchange's costs in providing cToM data and will not result in the Exchange generating a supra-competitive profit.

The Guidance defines "supra-competitive profit" as "profits that exceed the profits that can be obtained in a competitive market."²⁷ The Commission Staff further states in the Guidance that "the SRO should provide an analysis of the SRO's baseline revenues, costs, and profitability (before the proposed fee change) and the SRO's expected revenues, costs, and profitability (following the proposed fee change) for the product or service in question."²⁸ The Exchange provides this analysis below.

Based on this analysis, the Exchange believes the proposed fees are reasonable and do not result in a "supra-competitive"²⁹ profit. The Exchange believes that it is important to demonstrate that the proposed fees are based on its costs and reasonable business needs. The Exchange believes the proposed fees will allow the Exchange to offset expenses the Exchange has and will incur, and that the Exchange provides sufficient transparency (described below) into the costs and revenue underlying the proposed fees. Accordingly, the Exchange provides an analysis of its revenues, costs, and profitability associated with the proposed fees. This analysis includes information regarding its methodology for determining the costs and revenues

²⁶ Id.

²⁷ Id.

²⁸ Id.

²⁹ Id.

associated with the proposed fees. As a result of this analysis, the Exchange believes the proposed fees are fair and reasonable as a form of cost recovery plus present the possibility of a reasonable return for the Exchange's aggregate costs of offering cToM data, which has been offered for free for nearly three years.

The proposed fees are based on a cost-plus model. In determining the appropriate fees to charge, the Exchange considered its costs to provide cToM data, using what it believes to be a conservative methodology (i.e., that strictly considers only those costs that are most clearly directly related to the provision and maintenance of cToM data) to estimate such costs,³⁰ as well as the relative costs of providing and maintaining cToM data feeds, and set fees that are designed to cover its costs with a limited return in excess of such costs. However, as discussed more fully below, such fees may also result in the Exchange recouping less than all of its costs of providing and maintaining cToM data feeds because of the uncertainty of forecasting subscriber decision making with respect to firms' needs for cToM data and the likely potential for increased costs to procure the third-party services described below.

To determine the Exchange's costs to provide cToM data associated with the proposed fees, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the proposed fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports the cToM data product associated with the proposed fees.

³⁰ For example, the Exchange only included the costs associated with providing and supporting cToM data feeds and excluded from its cost calculations any cost not directly associated with providing and maintaining such cToM data feeds. Thus, the Exchange notes that this methodology underestimates the total costs of providing and maintaining cToM data feeds.

The Exchange also provides detailed information regarding the Exchange's cost allocation methodology – namely, information that explains the Exchange's rationale for determining that it was reasonable to allocate certain expenses described in this filing towards the cost to the Exchange to provide the services associated with the proposed fees. The Exchange conducted a thorough internal analysis to determine the portion (or percentage) of each expense to allocate to the support of services associated with the proposed fees. This analysis included discussions with each Exchange department head to determine the expenses that support services associated with the proposed fees. Once the expenses were identified, the Exchange department heads, with the assistance of the Exchange's internal finance department, reviewed such expenses holistically on an Exchange-wide level to determine what portion of that expense supports providing services for the proposed fees. The sum of all such portions of expenses represents the total cost to the Exchange to provide services associated with the proposed fees. For the avoidance of doubt, no expense amount was allocated twice.

To determine the Exchange's projected revenue associated with the proposed fees, the Exchange analyzed the number of Members and non-Members currently subscribing to the cToM data feeds and used a recent monthly billing cycle representative of 2021 monthly revenue. The Exchange also provided its baseline by analyzing June 2021, the monthly billing cycle prior to the proposed fees going into effect, and compared it to its expenses for that month. As discussed below, the Exchange does not believe it is appropriate to factor into its analysis future revenue growth or decline into its projections for purposes of these calculations, given the uncertainty of such projections due to the continually changing market data needs of market participants and potential increase in internal and third party expenses. The Exchange is presenting its revenue and expense associated with the proposed fees in this filing in a manner

that is consistent with how the Exchange presents its revenue and expense in its Audited Unconsolidated Financial Statements. The Exchange's most recent Audited Unconsolidated Financial Statement is for 2020. However, since the revenue and expense associated with the proposed fees were not in place in 2020 or for the first six months of 2021, the Exchange believes its 2020 Audited Unconsolidated Financial Statement is not representative of its current total annualized revenue and costs associated with the proposed fees. Accordingly, the Exchange believes it is more appropriate to analyze the proposed fees utilizing its 2021 revenue and costs, as described herein, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements. Based on this analysis, the Exchange believes that the proposed fees are reasonable because they will allow the Exchange to recover its costs associated with providing services related to the proposed fees and not result in excessive pricing or supra-competitive profit. Since 2019, when the Exchange launched operations with Complex Order functionality, the Exchange has spent time and resources building out various Complex Order functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex orders.³¹ The cToM data product allows market participants to better utilize the Exchange's Complex Order functionality by providing insights into the Exchange's Complex Order flow. The

³¹ See Securities Exchange Act Release Nos. 79405 (November 28, 2016), 81 FR 87086 (December 2, 2016) (SR-MIAX-2016-44) (amendment to clarify the manner in which the System allocates contracts at the end of a Complex Auction); 80089 (February 22, 2017), 82 FR 12153 (February 28, 2017) (SR-MIAX-2017-06) (adopting the Complex MIAX Options Price Collar, an additional price protection feature); 81229 (July 27, 2017), 82 FR 36023 (August 2, 2017) (SR-MIAX-2017-34) (amendment to ensure price and trade protections apply to Complex Orders); 89085 (June 17, 2020), 85 FR 37719 (June 23, 2020) (SR-MIAX-2020-16) (adopting new order type, Complex Attributable Order).

Exchange notes that no market participant ceased subscribing to the cToM feed since July 1, 2021, the date on which the fees became effective when proposed in the First Proposed Rule Change.

As outlined in more detail below, the Exchange projects that its annualized expense for 2021 to provide cToM data to be approximately \$202,657 per annum or an average of \$16,888 per month. The Exchange implemented the proposed fees on July 1, 2021 in the First Proposed Rule Change. For June 2021, prior to the proposed fees, Exchange Members and non-Members subscribed to a total of 14 cToM data feeds for which the Exchange charged \$0, as it has for the past three years. This resulted in a loss of approximately \$16,888 for that month. For the month of November 2021, which includes the proposed fees, Exchange Members and non-Members purchased 14 cToM data feeds, for which the Exchange charged approximately \$17,500 for that month. This resulted in a profit of \$612 for that month (a margin of approximately 3.5%). The Exchange cautions that this margin may fluctuate from month to month based on the uncertainty of predicting how many cToM data feeds may be purchased from month to month as Members and non-Members are able to add and drop subscriptions at any time based on their own business decisions. This margin may also decrease due to the significant inflationary pressure on capital items that the Exchange needs to purchase to maintain the Exchange's technology and systems.³² The Exchange has been subject to price increases upwards of 30% on network equipment due to supply chain shortages. This, in turn,

³² See "Supply chain chaos is already hitting global growth. And it's about to get worse", by Holly Ellyatt, CNBC, available at <https://www.cnbc.com/2021/10/18/supply-chain-chaos-is-hitting-global-growth-and-could-get-worse.html> (October 18, 2021); and "There will be things that people can't get, at Christmas, White House warns" by Jarrett Renshaw and Trevor Hunnicutt, Reuters, available at <https://www.reuters.com/world/us/americans-may-not-get-some-christmas-treats-white-house-officials-warn-2021-10-12/> (October 12, 2021).

results in higher overall costs for ongoing system maintenance, but also to purchase the items necessary to ensure ongoing system resiliency, performance, and determinism. These costs are expected to continue to go up as the U.S. economy continues to struggle with supply chain and inflation related issues.

Further, the Exchange chose to provide cToM data for free for the past three years to attract order flow and encourage market participants to experience the determinism and resiliency of the Exchange's trading systems and market data products. This resulted in the Exchange forgoing revenue it could have generated from assessing any fees. The Exchange could have sought to charge some fees at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a free exchange product to the options industry, which resulted in no initial revenues, going on three years. The Exchange now proposes to amend its fee structure to enable it to continue to maintain and improve its overall market and systems while also providing a highly reliable and deterministic trading system to the marketplace, complete with robust market data products, including cToM.

As mentioned above, the Exchange projects that its annualized expense for 2021 to provide cToM data to be approximately \$202,657 per annum or an average of \$16,888 per month and that these costs are expected to increase not only due to anticipated significant inflationary pressure, but also periodic fee increases by third parties.³³ The Exchange notes that there are material costs associated with providing the infrastructure and headcount to fully-

³³ For example, on October 20, 2021, ICE Data Services announced a 3.5% price increase effective January 1, 2022 for most services. The price increase by ICE Data Services includes their Secure Financial Transaction Infrastructure ("SFTI") network, which is relied on by a majority of market participants, including the Exchange. See email from ICE Data Services to the Exchange, dated October 20, 2021. The Exchange further notes that on October 22, 2019, the Exchange was notified by ICE Data Services that it was raising its fees charged to the Exchange by approximately 11% for the SFTI network.

support access to the Exchange and various Exchange products. The Exchange incurs technology expense related to establishing and maintaining Information Security services, enhanced network monitoring and customer reporting, as well as Regulation SCI mandated processes, associated with its network technology. While some of the expense is fixed, much of the expense is not fixed, and thus increases the cost to the Exchange to provide services associated with the proposed fees. For example, new Members to the Exchange may require the purchase of additional hardware to support those Members as well as enhanced monitoring and reporting of customer performance that the Exchange and its affiliates provide. Further, as the total number Members increases, the Exchange and its affiliates may need to increase their data center footprint and consume more power, resulting in increased costs charged by their third-party data center provider. Accordingly, the cost to the Exchange and its affiliates to provide services and products to its Members is not fixed. The Exchange believes the proposed fees are a reasonable attempt to offset a portion of the costs to the Exchange associated with providing certain Exchange products.

The Exchange only has four primary sources of revenue and cost recovery mechanisms: transaction fees, access fees, regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2019.³⁴ This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency

³⁴ The Exchange has incurred a cumulative loss of \$22 million since its inception in 2019 to 2020, the last year for which the Exchange's Form 1 data is available. See Exchange's Form 1/A, Application for Registration or Exemption from Registration as a National Securities Exchange, filed July 28, 2021, available at <https://sec.report/Document/999999997-21-004557/>.

of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services and market data products or provide them at a very marginal cost, which has not been profitable to the Exchange, but beneficial to the overall options industry. This resulted in the Exchange forgoing revenue it could have generated from assessing any amount of fees.

The Exchange believes that the proposed fees are fair and reasonable because they will not result in excessive pricing or supra-competitive profit, when comparing the total annual expense that the Exchange projects to incur in connection with providing these services versus the total annual revenue that the Exchange projects to collect in connection with services associated with the proposed fees. As mentioned above, for 2021,³⁵ the total annual expense for providing the services associated with the proposed fees is projected to be approximately \$202,657, or approximately \$16,888 per month. This projected total annual expense is comprised of the following, all of which are directly related to the services associated with the proposed fees: (1) third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services; and (2) internal expense, relating to the internal costs of the Exchange to provide the services associated with the proposed fees.³⁶ As noted above, the Exchange believes it is more appropriate to analyze the proposed fees utilizing its 2021 revenue and costs, which utilize the same presentation methodology as set forth in the Exchange's

³⁵ The Exchange has not yet finalized its 2021 year end results.

³⁶ The percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates.

previously-issued Audited Unconsolidated Financial Statements.³⁷ The \$202,657 projected total annual expense is directly related to the services associated with the proposed fees, and not any other product or service offered by the Exchange. It does not include general costs of operating matching engines and other trading technology. No expense amount was allocated twice.

As discussed above, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger (this includes over 150 separate and distinct expense items) to determine whether each such expense relates to the services associated with the proposed fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports those services, and thus bears a relationship that is, "in nature and closeness," directly related to those services. The sum of all such portions of expenses represents the total cost of the Exchange to provide services associated with the proposed fees.

External Expense Allocations

For 2021, total third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services for the Exchange to be able to provide the services associated with the proposed fees, is projected to be \$4,160. This includes, but is not limited to, a portion of the fees paid to: (1) Equinix, for data center services, for the primary,

³⁷ For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled "Operating Expenses Incurred Directly or Allocated From Parent," in the Exchange's 2019 Form 1 Amendment containing its financial statements for 2018. See Securities Exchange Act Release No. 87877 (December 31, 2019), 85 FR 738 (January 7, 2020) (SR-EMERALD-2019-39). Accordingly, the third-party expense described in this filing is attributed to the same line item for the Exchange's 2021 Form 1 Amendment, which will be filed in 2022.

secondary, and disaster recovery locations of the Exchange's trading system infrastructure; (2) Zayo Group Holdings, Inc. ("Zayo") for network services (fiber and bandwidth products and services) linking the Exchange's office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; and (3) various other hardware and software providers (including Dell and Cisco, which support the production environment in which Members connect to the network to trade, receive market data, etc.). For clarity, only a portion of all fees paid to such third-parties is included in the third-party expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the services associated with the proposed fees.

For clarity, only a portion of all fees paid to such third-parties is included in the third-party expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the market data product associated with the proposed fees. Further, the Exchange notes that, with respect to the expenses included herein, those expenses only cover the MIAX market; expenses associated with MIAX PEARL, LLC ("MIAX Pearl") for its options and equities markets and MIAX, are accounted for separately and are not included within the scope of this filing. As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Further, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations, which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange to provide the services associated with the proposed fees. In particular, the Exchange believes it is reasonable to allocate the identified portion of the Equinix expense because Equinix operates the data centers (primary, secondary, and disaster recovery) that host the Exchange's network infrastructure. This includes, among other things, the necessary storage space, which continues to expand and increase in cost, power to operate the network infrastructure, and cooling apparatuses to ensure the Exchange's network infrastructure maintains stability. Without these services from Equinix, the Exchange would not be able to operate and support the network and provide the cToM product associated with the proposed fees to its Members, non-Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the cToM product associated with the proposed fees, only that portion which the Exchange identified as being specifically mapped to providing the cToM product associated with the proposed fees, approximately 0.20% of the total applicable Equinix expense. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM product associated with the proposed fees, and not any other service, as supported by its cost review.³⁸

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to

³⁸ As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Again, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

the network, linking the Exchange with its affiliates, MIAX Pearl and MIAX, as well as the data center and disaster recovery locations. As such, all of the trade data, including the billions of messages each day per exchange, flow through Zayo's infrastructure over the Exchange's network. Without these services from Zayo, the Exchange would not be able to operate and support the network and provide the cToM data associated with the proposed fees. The Exchange did not allocate all of the Zayo expense toward the cost of providing the cToM data associated with the proposed fees, only the portion which the Exchange identified as being specifically mapped to providing the cToM data associated with the proposed fees, approximately 0.20% of the total applicable Zayo expense. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM data associated with the proposed fees, and not any other service, as supported by its cost review.³⁹

The Exchange did not allocate any expense associated with the proposed fees towards SFTI and various other service providers' (including Thompson Reuters, NYSE, Nasdaq, and Internap) because the MIAX Emerald architecture takes advantage of an advance in design to eliminate the need for a market data distribution gateway layer. The computation and dissemination via an API is done solely within the match engine environment and is then delivered via the member and non-member connectivity infrastructure. This architecture delivers a market data system that is more efficient both in cost and performance. Accordingly, the Exchange determined not to allocate any expense associated with SFTI and various other service providers.

³⁹Id.

The Exchange believes it is reasonable to allocate the identified portion of the other hardware and software provider expense because this includes costs for dedicated hardware licenses for switches and servers, as well as dedicated software licenses for security monitoring and reporting across the network. Without this hardware and software, the Exchange would not be able to operate and support the network and provide cToM data to its Members, non-Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the cToM data associated with the proposed fees, only the portions which the Exchange identified as being specifically mapped to providing the cToM data associated with the proposed fees, approximately 0.20% of the total applicable hardware and software provider expense. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM data associated with the proposed fees.⁴⁰

Internal Expense Allocations

For 2021, total projected internal expense, relating to the internal costs of the Exchange to provide the cToM data associated with the proposed fees, is projected to be \$198,497. This includes, but is not limited to, costs associated with: (1) employee compensation and benefits for full-time employees that support the cToM data associated with the proposed fees, including staff in network operations, trading operations, development, system operations, and business that support those employees and functions; (2) depreciation and amortization of hardware and software used to provide the cToM data associated with the proposed fees, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support the network for trading; and (3) occupancy costs

⁴⁰ Id.

for leased office space for staff that provide the cToM data associated with the proposed fees. The breakdown of these costs is more fully-described below. For clarity, only a portion of all such internal expenses are included in the internal expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire costs contained in those items to the cToM data associated with the proposed fees.

The Exchange believes it is reasonable to allocate such internal expense described above towards the total cost to the Exchange to provide the cToM data associated with the proposed fees. In particular, the Exchange's employee compensation and benefits expense relating to providing the cToM data associated with the proposed fees is projected to be approximately \$185,002, which is only a portion of the \$9.74 million total projected expense for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portion of such expense because this includes the time spent by employees of several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development (who create the business requirement documents that the Technology staff use to develop network features, products and enhancements), and Trade Operations. As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by nearly every employee on matters relating to cToM. Without these employees, the Exchange would not be able to provide the cToM product to its Members, non-Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of the cToM product, only the portion which the Exchange identified as being specifically mapped to providing the cToM product associated with the proposed fees, approximately 2.0% of the total applicable employee compensation and benefits expense. The Exchange believes this allocation is reasonable

because it represents the Exchange's actual cost to provide the cToM data associated with the proposed fees, and not any other service, as supported by its cost review.⁴¹

The Exchange's depreciation and amortization expense relating to providing the cToM data associated with the proposed fees is projected to be \$3,635, which is only a portion of the \$1.9 million total projected expense for depreciation and amortization. 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 and provide the cToM product. Without this equipment, the Exchange would not be able to operate the network and provide the cToM product to its Members, non-Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing the cToM product, only the portion which the Exchange identified as being specifically mapped to providing the cToM product, approximately 0.20% of the total applicable depreciation and amortization expense, as this product would not be possible without relying on such. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM product associated with the proposed fees, and not any other service, as supported by its cost review.⁴²

The Exchange's occupancy expense relating to providing the cToM product associated with the proposed fees is projected to be \$9,860, which is only a portion of the \$0.60 million total projected expense for occupancy. The Exchange believes it is reasonable to allocate the

⁴¹ Id.

⁴² Id.

identified portion of such expense because such expense represents the portion of the Exchange's cost to rent and maintain a physical location for the Exchange's staff who operate and support the network, including providing the cToM product. This amount consists primarily of rent for the Exchange's Princeton, New Jersey office, as well as various related costs, such as physical security, property management fees, property taxes, and utilities. The Exchange operates its Network Operations Center ("NOC") and Security Operations Center ("SOC") from its Princeton, New Jersey office location. A centralized office space is required to house the staff that operates and supports the network and Exchange products. The Exchange currently has approximately 200 employees. Approximately two-thirds of the Exchange's staff are in the Technology department, and the majority of those staff have some role in the operation and performance of the services associated with the proposed fees. Accordingly, the Exchange believes it is reasonable to allocate the identified portion of its occupancy expense because such amount represents the Exchange's actual cost to house the equipment and personnel who operate and support the Exchange's network infrastructure and the market data services associated with the proposed fees. The Exchange did not allocate all of the occupancy expense toward the cost of providing the market data services associated with the proposed fees, only the portion which the Exchange identified as being specifically mapped to operating and supporting the network, approximately 2.0% of the total applicable occupancy expense. The Exchange believes this allocation is reasonable because it represents the Exchange's cost to provide the market data services associated with the proposed fees, and not any other service, as supported by its cost review.⁴³

⁴³Id.

Based on the above, the Exchange believes that its provision of market data services associated with the proposed fees will not result in excessive pricing or supra-competitive profit. As discussed above, the Exchange projects that its annualized expense for 2021 to provide the cToM data associated with the proposed fees is projected to be approximately \$202,657, or approximately \$16,888 per month on average. The Exchange implemented the proposed fees on July 1, 2021 in the First Proposed Rule Change. For June 2021, prior to the proposed fees, Members and non-Members subscribed to a total of 14 cToM data feeds, for which the Exchange charged \$0, for the past three years. This resulted in a month over month loss of \$16,888. For the month of November 2021, which includes the proposed fees, Members and non-Members subscribed to 14 cToM data feeds, for which the Exchange charged approximately \$17,500 for that month. This resulted in a profit of \$612 for that month (a margin of approximately 3.5%). The Exchange believes this margin will allow it to begin to recoup its expenses and continue to invest in its technology infrastructure. Therefore, the Exchange also believes that this proposed margin is reasonable because it represents a reasonable rate of return.

Again, the Exchange cautions that this margin may fluctuate from month to month based in the uncertainty of predicting how many market data feeds may be purchased from month to month as Members and non-Members are free to add and drop subscriptions at any time based on their own business decisions. This margin may also decrease due to the significant inflationary pressure on capital items that it needs to purchase to maintain the Exchange's technology and systems. Accordingly, the Exchange believes its total projected revenue for the providing the market data services associated with the proposed fees will not result in excessive pricing or supra-competitive profit.

The Exchange believes it is reasonable, equitable and not unfairly discriminatory to allocate the respective percentages of each expense category described above towards the total cost to the Exchange of operating and supporting the network, including providing the market data services associated with the proposed fees because the Exchange performed a line-by-line item analysis of nearly every expense of the Exchange, and has determined the expenses that directly relate to providing market data services to the Exchange. Further, the Exchange notes that, without the specific third-party and internal expense items listed above, the Exchange would not be able to provide the market data services associated with the proposed fees to its Members, non-Members and their customers. Each of these expense items, including physical hardware, software, employee compensation and benefits, occupancy costs, and the depreciation and amortization of equipment, have been identified through a line-by-line item analysis to be integral to providing market data services. The proposed fees are intended to recover the costs of providing cToM data. Accordingly, the Exchange believes that the proposed fees are fair and reasonable because they do not result in excessive pricing or supra-competitive profit, when comparing the actual costs to the Exchange versus the projected annual revenue from the proposed fees.

No market participant is required by any rule or regulation to utilize the Exchange's Complex Order functionality or subscribe to the cToM data feed. Further, unlike orders on the Exchange's Simple Order Book, Complex Orders are not protected and will never trade through Priority Customer⁴⁴ orders, thus protecting the priority that is established in the Simple Order

⁴⁴ The term "Priority Customer" means a person or entity that (i) is not a broker or dealer in securities and (ii) does not place more than 390 orders in listed options per day on average during a calendar month for its own beneficial accounts(s). The term "Priority Customer Order" means an order for the account of a Priority Customer. See Exchange

Book.⁴⁵ Additionally, unlike the continuous quoting requirements of Market Makers in the simple order market, there are no continuous quoting requirements respecting Complex Orders. It is a business decision whether market participants utilize Complex Order strategies on the Exchange and whether to purchase cToM data to help effect those strategies.

The Proposed Fees are Reasonable when Compared to the Fees of other Options Exchanges with Similar Market Share

The Exchange does not have visibility into other options exchanges' costs to provide market data or their fee markup over those costs, and therefore cannot use other exchange's market data fees as a benchmark to determine a reasonable markup over the costs of providing market data. Nevertheless, the Exchange believes the other exchange's market data fees are a useful examples of alternative approaches to providing and charging for market data. To that end, the Exchange believes the proposed pricing is reasonable because the proposed rates are similar to or less than the fees charged by other options exchanges for similar data products.⁴⁶

Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2019.⁴⁷ This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services or Exchange products or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing any fees or higher fees. The Exchange could have sought to

Rule 100.

⁴⁵ The "Simple Order Book" is the Exchange's regular electronic book of orders and quotes. See Exchange Rule 518(a)(5).

⁴⁶ See supra notes 18, 19 and 20.

⁴⁷ See supra note 34.

charge higher fees at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a low cost exchange alternative to the options industry which resulted in lower initial revenues. An example of this is cToM, for which the Exchange only now seeks to adopt fees at a level similar to or lower than those of other options exchanges.

Since, the Exchange initially established the cToM data product when it launched trading operations on March 1, 2019, all Exchange Members and non-Members have had the ability to receive the Exchange's cToM data free of charge for the past three years.⁴⁸ Since 2019, when the Exchange launched operations with Complex Order functionality, the Exchange has spent time and resources building out various Complex Order functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex orders.⁴⁹ The cToM data product allows market participants to better utilize the Exchange's Complex Order functionality by providing insights into the Exchange's Complex Order flow. The Exchange currently has 14 subscribers (12 Members and 2 non-Members) for its cToM data product. Each one of these subscribers have not paid any cToM data fees (other than the five months in which the First, Second and Third Proposed Rule Changes were in effect) but have received the benefit of the Exchange building out its Complex Order functionality to better compete with other exchanges complex functionality. The Exchange notes that no market

⁴⁸ See supra note 13.

⁴⁹ See Securities Exchange Act Release Nos. 85345 (March 18, 2019), 84 FR 10848 (March 22, 2019) (SR-EMERALD-2019-13) (adopting complex stock-option order functionality); 85346 (March 18, 2019), 84 FR 10854 (March 22, 2019) (SR-EMERALD-2019-14) (adopting additional price protection during a Complex Auction and the Complex Liquidity Exposure Process to provide additional price discovery).

participant ceased subscribing to the cToM feed since July 1, 2021, the date on which the fees became effective when proposed in the First Proposed Rule Change.

The Proposed Pricing is not Unfairly Discriminatory and Provides for the Equitable Allocation of Fees, Dues, and other Charges

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 cToM data feed 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 determine to receive any market data feed of the Exchange (or its affiliates, MIA X Pearl and MIA X), must first execute, among other things, the MIA X Exchange Group Exchange Data Agreement (the “Exchange Data Agreement”).⁵⁰ 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.⁵¹ External Distributors may distribute the Exchange’s market data to persons who are not officers, employees or affiliates of the External Distributor,⁵² and may charge their own fees for the distribution of such market data. Accordingly, the Exchange believes it is fair, reasonable and not unfairly discriminatory to assess External Distributors a higher fee for the Exchange’s market data products as External Distributors have greater usage rights to commercialize such market data. The Exchange also utilizes more resources to support External Distributors versus Internal

⁵⁰ See Exchange Data Agreement, available at https://miaxweb2.pairsite.com/sites/default/files/page-files/MIA X Exchange Group Data Agreement_09032020.pdf.

⁵¹ See id.

⁵² See id.

Distributors, as External Distributors have reporting and monitoring obligations that Internal Distributors do not have, thus requiring additional time and effort of Exchange staff. 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 subscribers 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 deem the proposed fees to be unfair or inequitable, firms can discontinue their use of the cToM data.

Further, the Exchange believes that the proposal is equitable and not unfairly discriminatory because the proposed cToM fees will apply to all market participants of the Exchange on a uniform basis. The Exchange also notes that the proposed monthly cToM fees for Internal and External Distributors are the same prices that the Exchange charges for its ToM data product.

The Exchange believes the proposed change to delete certain text from Section 6)a) of the Fee Schedule promotes just and equitable principles of trade and removes impediments to and perfects the mechanism of a free and open market and a national market system because the proposed change is a non-substantive edit to the Fee Schedule to remove unnecessary text. The Exchange believes that this proposed change will provide greater clarity to Members and the public regarding the Exchange's Fee Schedule and that it is in the public interest for the Fee Schedule to be accurate and concise so as to eliminate the potential for confusion.

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

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Intra-Market Competition

The Exchange believes the proposed fees will not result in any burden on intra-market competition that is not necessary or appropriate in furtherance of the purposes of the Act because the proposed fees will allow the Exchange to recoup some of its costs in providing cToM to market participants. As described above, the Exchange has operated at a cumulative net annual loss since it launched operations in 2019⁵³ due to providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services and Exchange products or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing any fees or higher fees. The Exchange could have sought to charge higher fees at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a low cost exchange alternative to the options industry which resulted in lower initial revenues. An example of this is cToM, for which the Exchange only now seeks to adopt fees at a level similar to or lower than those of other options exchanges.

Since the Exchange initially launched operations with the cToM data product in 2019, all Exchange Members and non-Members have had the ability to receive the Exchange's cToM data

⁵³ See supra note 34.

free of charge for the past three years.⁵⁴ Since 2019, when the Exchange adopted Complex Order functionality, the Exchange has spent time and resources building out various Complex Order functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex orders.⁵⁵ The Exchange now seeks to recoup its costs for providing cToM to market participants and believes the proposed fees will not result in excessive pricing or supracompetitive profit.

Inter-Market Competition

The Exchange also does not believe the proposed fees would cause any unnecessary or in appropriate burden on intermarket competition as other exchanges are free to introduce their own comparable data product and lower their prices to better compete with the Exchange's offering. The Exchange does not believe the proposed rule change would cause any unnecessary or inappropriate burden on intramarket competition. Particularly, the proposed product and fees apply uniformly to any purchaser, in that it does not differentiate between subscribers that purchase cToM. The proposed fees are set at a modest level that would allow any interested Member or non-Member to purchase such data based on their business needs.

The Exchange does not believe that the proposed rule change to make a minor, non-substantive edit to Section 6(a) of the Fee Schedule by deleting unnecessary text will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. This proposed rule change is not being made for competitive reasons, but rather is designed to remedy a minor non-substantive issue and will provide added clarity to the Fee

⁵⁴ See supra note 13.

⁵⁵ See supra note 49.

Schedule. The Exchange believes that it is in the public interest for the Fee Schedule to be accurate and concise so as to eliminate the potential for confusion on the part of market participants. In addition, the Exchange does not believe the proposal will impose any burden on inter-market competition as the proposal does not address any competitive issues and is intended to protect investors by providing further transparency regarding the Exchange's Fee Schedule.

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

No written comments were either solicited or received.

6. Extension of Time Period for Commission Action

Not applicable.

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

Pursuant to Section 19(b)(3)(A)(ii) of the Act,⁵⁶ and Rule 19b-4(f)(2) thereunder⁵⁷ 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 self-regulatory organization, 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

No 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.

⁵⁶ 15 U.S.C. 78s(b)(3)(A)(ii).

⁵⁷ 17 CFR 240.19b-4.

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-2021-44)

December __, 2021

Self-Regulatory Organizations: Notice of Filing and Immediate Effectiveness of a Proposed Rule Change by MIAX Emerald, LLC to Amend Its Fee Schedule

Pursuant to the provisions of 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 December 10, 2021, 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 Exchange’s Fee Schedule (“Fee Schedule”) to establish fees for the market data product known as 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

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 amend Section 6(a) of the Fee Schedule to establish fees for the cToM data product. The Exchange initially filed this proposal on June 30, 2021 with the proposed fees to be effective beginning July 1, 2021 (“First Proposed Rule Change”).³ The First Proposed Rule Change was published for comment in the Federal Register on July 15, 2021.⁴ Although the Commission did not receive any comment letters on the First Proposed Rule Change, on August 27, 2021, the Commission issued its Suspension of and Order Instituting Proceedings to Determine Whether to Approve or Disapprove Proposed Rule Changes to Establish Fees for the Exchanges’ cToM Market Data Products (relating to the First Proposed Rule Change and a similar filing by the Exchange’s affiliate, Miami International Securities Exchange, LLC (“MIAX”), to also adopt cToM fees).⁵ The Exchange withdrew the First Proposed Rule Change on September 30, 2021⁶ and re-submitted the proposal, with the proposed fee changes being immediately effective (“Second Proposed Rule Change”).⁷ The Second

³ See Securities Exchange Act Release No. 92358 (July 9, 2021), 86 FR 37361 (July 15, 2021) (SR-EMERALD-2021-21).

⁴ Id.

⁵ See Securities Exchange Act Release No. 92789 (August 27, 2021), 86 FR 49364 (September 2, 2021) (SR-MIAX-2021-28, SR-EMERALD-2021-21) (the “Suspension Order”).

⁶ See Securities Exchange Act Release No. 93471 (October 29, 2021), 86 FR 60947 (November 4, 2021).

⁷ See SR-EMERALD-2021-32.

Proposed Rule Change provided additional justification for the proposed fee changes and addressed comments provided by the Commission Staff. On October 14, 2021, the Exchange withdrew the Second Proposed Rule Change and submitted its proposal to adopt cToM fees to again provide additional justification for the proposed fee changes and address comments provided by the Commission Staff (“Third Proposed Rule Change”).⁸ The Third Proposed Rule Change was published for comment in the Federal Register on November 1, 2021.⁹ Although the Commission did not again receive any comment letters on the Third Proposed Rule Change, the Exchange withdrew the Third Proposed Rule Change on December 10, 2021 and now submits this proposal for immediate effectiveness (“Fourth Proposed Rule Change”). This Fourth Proposed Rule Change meaningfully attempts to provide additional justification and explanation for the proposed fee changes in response to a telephone conversation with Commission Staff on December 7, 2021 relating to the Third Proposed Rule Change.

Background

The Exchange previously adopted rules governing the trading of Complex Orders¹⁰ on the Emerald System¹¹ in 2018,¹² ahead of the Exchange’s planned launch, which took place on March 1, 2019. Shortly thereafter, the Exchange also adopted the market data product cToM and

⁸ Securities Exchange Act Release No. 93427 (October 26, 2021), 86 FR 60310 (November 1, 2021) (SR-EMERALD-2021-34).

⁹ Id.

¹⁰ See Exchange Rule 518(a)(5) for the definition of Complex Orders.

¹¹ The term “System” means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

¹² 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).

expressly waived fees for cToM to provide an incentive to prospective market participants to subscribe to that market data feed.¹³ The Exchange has not charged fees to cToM subscribers in the nearly three years since it was first available for subscription.

In summary, cToM provides subscribers with the same information as the MIAX Emerald Top of Market (“ToM”) data product as it relates to the Strategy Book¹⁴, i.e., the Exchange’s best bid and offer for a complex strategy, with aggregate size, based on displayable order and quoting interest 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 a distinct market data product from ToM. ToM subscribers are not required to subscribe to cToM, and cToM subscribers are not required to subscribe to ToM.¹⁵

Proposal

The Exchange now proposes to amend Section 6(a) of the Fee Schedule to charge monthly fees to Distributors¹⁶ of cToM. Specifically, the Exchange proposes to assess Internal Distributors \$1,250 per month and External Distributors \$1,750 per month for the cToM data

¹³ 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).

¹⁴ The “Strategy Book” is the Exchange’s electronic book of complex orders and complex quotes. See Exchange Rule 518(a)(17).

¹⁵ See supra note 13.

¹⁶ 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 Section 6(a) of the Fee Schedule.

feed.¹⁷ The Exchange notes that the proposed monthly cToM fees for Internal and External Distributor are the same prices that the Exchange charges for its ToM data product and are identical to the prices the Exchange's affiliate, MIAX, proposes to charge for its cToM product.

Like it does today for ToM, the Exchange proposes to assess cToM fees on Internal and External Distributors in each month the Distributor is credentialed to use cToM in the production environment. Also, like 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. Such new Distributors will be assessed a pro-rata percentage of the fees 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 believes that other exchange's fees for complex market data are useful examples and provides the below table for comparison purposes only to show how the Exchange's proposed fees compare to fees currently charged by other options exchanges for similar data. As shown by the below table, the Exchange's proposed fees similar to or less than fees charged for similar data products provided by other options exchanges.

Exchange	Monthly Fee
MIAX Emerald (as proposed)	\$1,250 – Internal Distributor \$1,750 – External Distributor

¹⁷ The Exchange also proposes to make a minor related change to remove the phrase “(as applicable)” from the explanatory paragraph in Section 6)a).

NYSE American, LLC (“Amex”) ¹⁸	\$1,500 Access Fee \$1,000 Redistribution Fee
NYSE Arca, Inc. (“Arca”) ¹⁹	\$1,500 Access Fee \$1,000 Redistribution Fee
NASDAQ PHLX LLC (“PHLX”) ²⁰	\$3,000 – Internal Distributor \$3,500 – External Distributor

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 corrective edit. In particular, the Exchange proposes to delete 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 also not the exclusive source for Complex Order information from the Exchange and market participants may choose to subscribe to the Exchange’s other data products to receive such information. It is a business decision of market participants whether to subscribe to the cToM data product or not. Market participants that choose not to subscribe to cToM can derive much, if not all, of the same information provided in the cToM feed from other Exchange sources, including, for example, the MIAX Emerald Order Feed (“MOR”).²¹ The following

¹⁸ See NYSE American Options Proprietary Market Data Fees, American Options Complex Fees, at https://www.nyse.com/publicdocs/nyse/data/NYSE_American_Options_Market_Data_Fee_Schedule.pdf.

¹⁹ See NYSE Arca Options Proprietary Market Data Fees, Arca Options Complex Fees, at https://www.nyse.com/publicdocs/nyse/data/NYSE_Arca_Options_Proprietary_Data_Fee_Schedule.pdf.

²⁰ See PHLX Price List – U.S. Derivatives Data, PHLX Orders Fees, at <http://www.nasdaqtrader.com/Trader.aspx?id=DPPPriceListOptions#PHLX>.

²¹ See MIAX website, Market Data & Offerings, at <https://www.miaxoptions.com/market-data-offerings> (last visited December 10, 2021). 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

cToM information is provided to subscribers of MOR: the Exchange's best bid and offer for a complex strategy, with aggregate size, based on displayable order and quoting interest 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 the cToM information contained in MOR, complex strategy last sale information can be derived from the Exchange's ToM feed. Specifically, market participants may deduce that last sale information for multiple trades in related options series that are disseminated via the ToM feed with the same timestamp are likely part of a Complex Order transaction and last sale.

Implementation

The proposed rule change is immediately effective.

2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act²² in general, and furthers the objectives of Section 6(b)(4) of the Act²³ in particular, in that it is an equitable allocation of reasonable dues, fees and other charges among its members and issuers and other persons using its facilities. The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act in that it is designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public

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.

²² 15 U.S.C. 78f(b).

²³ 15 U.S.C. 78f(b)(4) and (5).

interest and is not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

The Proposed Fees will not Result in a Supra-Competitive Profit

The Exchange believes that exchanges, in setting fees of all types, should meet very high standards of transparency to demonstrate why each new fee or fee increase meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange sets certain non-transaction fees, including market data fees. The Exchange believes that it is important to demonstrate that these fees are based on its costs to provide these products and reasonable business needs.

In its Guidance, the Commission Staff stated that, “[a]s an initial step in assessing the reasonableness of a fee, staff considers whether the fee is constrained by significant competitive forces.”²⁴ The Commission Staff Guidance further states that, “... even where an SRO cannot demonstrate, or does not assert, that significant competitive forces constrain the fee at issue, a cost-based discussion may be an alternative basis upon which to show consistency with the Exchange Act.”²⁵ In its Guidance, the Commission staff further states that, “[i]f an SRO seeks to support its claims that a proposed fee is fair and reasonable because it will permit recovery of the SRO’s costs, or will not result in excessive pricing or supracompetitive profit, specific information, including quantitative information, should be provided to support that argument.”²⁶ The Exchange does not assert that the proposed fees are constrained by competitive forces.

²⁴ See Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), at <https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees> (the “Guidance”).

²⁵ Id.

²⁶ Id.

Rather, the Exchange asserts that the proposed fees are reasonable because they will permit recovery of the Exchange's costs in providing cToM data and will not result in the Exchange generating a supra-competitive profit.

The Guidance defines "supra-competitive profit" as "profits that exceed the profits that can be obtained in a competitive market."²⁷ The Commission Staff further states in the Guidance that "the SRO should provide an analysis of the SRO's baseline revenues, costs, and profitability (before the proposed fee change) and the SRO's expected revenues, costs, and profitability (following the proposed fee change) for the product or service in question."²⁸ The Exchange provides this analysis below.

Based on this analysis, the Exchange believes the proposed fees are reasonable and do not result in a "supra-competitive"²⁹ profit. The Exchange believes that it is important to demonstrate that the proposed fees are based on its costs and reasonable business needs. The Exchange believes the proposed fees will allow the Exchange to offset expenses the Exchange has and will incur, and that the Exchange provides sufficient transparency (described below) into the costs and revenue underlying the proposed fees. Accordingly, the Exchange provides an analysis of its revenues, costs, and profitability associated with the proposed fees. This analysis includes information regarding its methodology for determining the costs and revenues associated with the proposed fees. As a result of this analysis, the Exchange believes the proposed fees are fair and reasonable as a form of cost recovery plus present the possibility of a reasonable return for the Exchange's aggregate costs of offering cToM data, which has been offered for free for nearly three years.

²⁷ Id.

²⁸ Id.

²⁹ Id.

The proposed fees are based on a cost-plus model. In determining the appropriate fees to charge, the Exchange considered its costs to provide cToM data, using what it believes to be a conservative methodology (i.e., that strictly considers only those costs that are most clearly directly related to the provision and maintenance of cToM data) to estimate such costs,³⁰ as well as the relative costs of providing and maintaining cToM data feeds, and set fees that are designed to cover its costs with a limited return in excess of such costs. However, as discussed more fully below, such fees may also result in the Exchange recouping less than all of its costs of providing and maintaining cToM data feeds because of the uncertainty of forecasting subscriber decision making with respect to firms' needs for cToM data and the likely potential for increased costs to procure the third-party services described below.

To determine the Exchange's costs to provide cToM data associated with the proposed fees, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the proposed fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports the cToM data product associated with the proposed fees.

The Exchange also provides detailed information regarding the Exchange's cost allocation methodology – namely, information that explains the Exchange's rationale for determining that it was reasonable to allocate certain expenses described in this filing towards the cost to the Exchange to provide the services associated with the proposed fees. The

³⁰ For example, the Exchange only included the costs associated with providing and supporting cToM data feeds and excluded from its cost calculations any cost not directly associated with providing and maintaining such cToM data feeds. Thus, the Exchange notes that this methodology underestimates the total costs of providing and maintaining cToM data feeds.

Exchange conducted a thorough internal analysis to determine the portion (or percentage) of each expense to allocate to the support of services associated with the proposed fees. This analysis included discussions with each Exchange department head to determine the expenses that support services associated with the proposed fees. Once the expenses were identified, the Exchange department heads, with the assistance of the Exchange's internal finance department, reviewed such expenses holistically on an Exchange-wide level to determine what portion of that expense supports providing services for the proposed fees. The sum of all such portions of expenses represents the total cost to the Exchange to provide services associated with the proposed fees. For the avoidance of doubt, no expense amount was allocated twice.

To determine the Exchange's projected revenue associated with the proposed fees, the Exchange analyzed the number of Members and non-Members currently subscribing to the cToM data feeds and used a recent monthly billing cycle representative of 2021 monthly revenue. The Exchange also provided its baseline by analyzing June 2021, the monthly billing cycle prior to the proposed fees going into effect, and compared it to its expenses for that month. As discussed below, the Exchange does not believe it is appropriate to factor into its analysis future revenue growth or decline into its projections for purposes of these calculations, given the uncertainty of such projections due to the continually changing market data needs of market participants and potential increase in internal and third party expenses. The Exchange is presenting its revenue and expense associated with the proposed fees in this filing in a manner that is consistent with how the Exchange presents its revenue and expense in its Audited Unconsolidated Financial Statements. The Exchange's most recent Audited Unconsolidated Financial Statement is for 2020. However, since the revenue and expense associated with the proposed fees were not in place in 2020 or for the first six months of 2021, the Exchange believes its 2020 Audited Unconsolidated Financial Statement is not representative of its current

total annualized revenue and costs associated with the proposed fees. Accordingly, the Exchange believes it is more appropriate to analyze the proposed fees utilizing its 2021 revenue and costs, as described herein, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements. Based on this analysis, the Exchange believes that the proposed fees are reasonable because they will allow the Exchange to recover its costs associated with providing services related to the proposed fees and not result in excessive pricing or supra-competitive profit. Since 2019, when the Exchange launched operations with Complex Order functionality, the Exchange has spent time and resources building out various Complex Order functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex orders.³¹ The cToM data product allows market participants to better utilize the Exchange's Complex Order functionality by providing insights into the Exchange's Complex Order flow. The Exchange notes that no market participant ceased subscribing to the cToM feed since July 1, 2021, the date on which the fees became effective when proposed in the First Proposed Rule Change.

As outlined in more detail below, the Exchange projects that its annualized expense for 2021 to provide cToM data to be approximately \$202,657 per annum or an average of \$16,888 per month. The Exchange implemented the proposed fees on July 1, 2021 in the First Proposed

³¹ See Securities Exchange Act Release Nos. 79405 (November 28, 2016), 81 FR 87086 (December 2, 2016) (SR-MIAX-2016-44) (amendment to clarify the manner in which the System allocates contracts at the end of a Complex Auction); 80089 (February 22, 2017), 82 FR 12153 (February 28, 2017) (SR-MIAX-2017-06) (adopting the Complex MIAX Options Price Collar, an additional price protection feature); 81229 (July 27, 2017), 82 FR 36023 (August 2, 2017) (SR-MIAX-2017-34) (amendment to ensure price and trade protections apply to Complex Orders); 89085 (June 17, 2020), 85 FR 37719 (June 23, 2020) (SR-MIAX-2020-16) (adopting new order type, Complex Attributable Order).

Rule Change. For June 2021, prior to the proposed fees, Exchange Members and non-Members subscribed to a total of 14 cToM data feeds for which the Exchange charged \$0, as it has for the past three years. This resulted in a loss of approximately \$16,888 for that month. For the month of November 2021, which includes the proposed fees, Exchange Members and non-Members purchased 14 cToM data feeds, for which the Exchange charged approximately \$17,500 for that month. This resulted in a profit of \$612 for that month (a margin of approximately 3.5%). The Exchange cautions that this margin may fluctuate from month to month based on the uncertainty of predicting how many cToM data feeds may be purchased from month to month as Members and non-Members are able to add and drop subscriptions at any time based on their own business decisions. This margin may also decrease due to the significant inflationary pressure on capital items that the Exchange needs to purchase to maintain the Exchange's technology and systems.³² The Exchange has been subject to price increases upwards of 30% on network equipment due to supply chain shortages. This, in turn, results in higher overall costs for ongoing system maintenance, but also to purchase the items necessary to ensure ongoing system resiliency, performance, and determinism. These costs are expected to continue to go up as the U.S. economy continues to struggle with supply chain and inflation related issues.

Further, the Exchange chose to provide cToM data for free for the past three years to attract order flow and encourage market participants to experience the determinism and

³² See "Supply chain chaos is already hitting global growth. And it's about to get worse", by Holly Ellyatt, CNBC, available at <https://www.cnbc.com/2021/10/18/supply-chain-chaos-is-hitting-global-growth-and-could-get-worse.html> (October 18, 2021); and "There will be things that people can't get, at Christmas, White House warns" by Jarrett Renshaw and Trevor Hunnicutt, Reuters, available at <https://www.reuters.com/world/us/americans-may-not-get-some-christmas-treats-white-house-officials-warn-2021-10-12/> (October 12, 2021).

resiliency of the Exchange's trading systems and market data products. This resulted in the Exchange forgoing revenue it could have generated from assessing any fees. The Exchange could have sought to charge some fees at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a free exchange product to the options industry, which resulted in no initial revenues, going on three years. The Exchange now proposes to amend its fee structure to enable it to continue to maintain and improve its overall market and systems while also providing a highly reliable and deterministic trading system to the marketplace, complete with robust market data products, including cToM.

As mentioned above, the Exchange projects that its annualized expense for 2021 to provide cToM data to be approximately \$202,657 per annum or an average of \$16,888 per month and that these costs are expected to increase not only due to anticipated significant inflationary pressure, but also periodic fee increases by third parties.³³ The Exchange notes that there are material costs associated with providing the infrastructure and headcount to fully-support access to the Exchange and various Exchange products. The Exchange incurs technology expense related to establishing and maintaining Information Security services, enhanced network monitoring and customer reporting, as well as Regulation SCI mandated processes, associated with its network technology. While some of the expense is fixed, much of the expense is not fixed, and thus increases the cost to the Exchange to provide services associated with the proposed fees. For example, new Members to the Exchange may require

³³ For example, on October 20, 2021, ICE Data Services announced a 3.5% price increase effective January 1, 2022 for most services. The price increase by ICE Data Services includes their Secure Financial Transaction Infrastructure ("SFTI") network, which is relied on by a majority of market participants, including the Exchange. See email from ICE Data Services to the Exchange, dated October 20, 2021. The Exchange further notes that on October 22, 2019, the Exchange was notified by ICE Data Services that it was raising its fees charged to the Exchange by approximately 11% for the SFTI network.

the purchase of additional hardware to support those Members as well as enhanced monitoring and reporting of customer performance that the Exchange and its affiliates provide. Further, as the total number Members increases, the Exchange and its affiliates may need to increase their data center footprint and consume more power, resulting in increased costs charged by their third-party data center provider. Accordingly, the cost to the Exchange and its affiliates to provide services and products to its Members is not fixed. The Exchange believes the proposed fees are a reasonable attempt to offset a portion of the costs to the Exchange associated with providing certain Exchange products.

The Exchange only has four primary sources of revenue and cost recovery mechanisms: transaction fees, access fees, regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2019.³⁴ This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services and market data products or provide them at a very marginal cost, which has not been profitable to the Exchange, but beneficial to the overall options industry. This resulted in the Exchange forgoing revenue it could have generated from assessing any amount of fees.

³⁴ The Exchange has incurred a cumulative loss of \$22 million since its inception in 2019 to 2020, the last year for which the Exchange's Form 1 data is available. See Exchange's Form 1/A, Application for Registration or Exemption from Registration as a National Securities Exchange, filed July 28, 2021, [available at https://sec.report/Document/999999997-21-004557/](https://sec.report/Document/999999997-21-004557/).

The Exchange believes that the proposed fees are fair and reasonable because they will not result in excessive pricing or supra-competitive profit, when comparing the total annual expense that the Exchange projects to incur in connection with providing these services versus the total annual revenue that the Exchange projects to collect in connection with services associated with the proposed fees. As mentioned above, for 2021,³⁵ the total annual expense for providing the services associated with the proposed fees is projected to be approximately \$202,657, or approximately \$16,888 per month. This projected total annual expense is comprised of the following, all of which are directly related to the services associated with the proposed fees: (1) third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services; and (2) internal expense, relating to the internal costs of the Exchange to provide the services associated with the proposed fees.³⁶ As noted above, the Exchange believes it is more appropriate to analyze the proposed fees utilizing its 2021 revenue and costs, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements.³⁷ The \$202,657 projected total annual expense is directly related to the services associated with the proposed fees, and not any other product or service offered by the Exchange. It does not include general costs of

³⁵ The Exchange has not yet finalized its 2021 year end results.

³⁶ The percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates.

³⁷ For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled "Operating Expenses Incurred Directly or Allocated From Parent," in the Exchange's 2019 Form 1 Amendment containing its financial statements for 2018. See Securities Exchange Act Release No. 87877 (December 31, 2019), 85 FR 738 (January 7, 2020) (SR-EMERALD-2019-39). Accordingly, the third-party expense described in this filing is attributed to the same line item for the Exchange's 2021 Form 1 Amendment, which will be filed in 2022.

operating matching engines and other trading technology. No expense amount was allocated twice.

As discussed above, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger (this includes over 150 separate and distinct expense items) to determine whether each such expense relates to the services associated with the proposed fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports those services, and thus bears a relationship that is, "in nature and closeness," directly related to those services. The sum of all such portions of expenses represents the total cost of the Exchange to provide services associated with the proposed fees.

External Expense Allocations

For 2021, total third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services for the Exchange to be able to provide the services associated with the proposed fees, is projected to be \$4,160. This includes, but is not limited to, a portion of the fees paid to: (1) Equinix, for data center services, for the primary, secondary, and disaster recovery locations of the Exchange's trading system infrastructure; (2) Zayo Group Holdings, Inc. ("Zayo") for network services (fiber and bandwidth products and services) linking the Exchange's office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; and (3) various other hardware and software providers (including Dell and Cisco, which support the production environment in which Members connect to the network to trade, receive market data, etc.). For clarity, only a portion of all fees paid to such third-parties is included in the third-party expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the services associated with the proposed fees.

For clarity, only a portion of all fees paid to such third-parties is included in the third-party expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the market data product associated with the proposed fees. Further, the Exchange notes that, with respect to the expenses included herein, those expenses only cover the MIAX market; expenses associated with MIAX PEARL, LLC (“MIAX Pearl”) for its options and equities markets and MIAX, are accounted for separately and are not included within the scope of this filing. As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Further, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations, which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange to provide the services associated with the proposed fees. In particular, the Exchange believes it is reasonable to allocate the identified portion of the Equinix expense because Equinix operates the data centers (primary, secondary, and disaster recovery) that host the Exchange’s network infrastructure. This includes, among other things, the necessary storage space, which continues to expand and increase in cost, power to operate the network infrastructure, and cooling apparatuses to ensure the Exchange’s network infrastructure maintains stability. Without these services from Equinix, the Exchange would not be able to operate and support the network and provide the cToM product associated with the proposed fees to its Members, non-Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the cToM product

associated with the proposed fees, only that portion which the Exchange identified as being specifically mapped to providing the cToM product associated with the proposed fees, approximately 0.20% of the total applicable Equinix expense. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM product associated with the proposed fees, and not any other service, as supported by its cost review.³⁸

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking the Exchange with its affiliates, MIAX Pearl and MIAX, as well as the data center and disaster recovery locations. As such, all of the trade data, including the billions of messages each day per exchange, flow through Zayo's infrastructure over the Exchange's network. Without these services from Zayo, the Exchange would not be able to operate and support the network and provide the cToM data associated with the proposed fees. The Exchange did not allocate all of the Zayo expense toward the cost of providing the cToM data associated with the proposed fees, only the portion which the Exchange identified as being specifically mapped to providing the cToM data associated with the proposed fees, approximately 0.20% of the total applicable Zayo expense. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM

³⁸ As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Again, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

data associated with the proposed fees, and not any other service, as supported by its cost review.³⁹

The Exchange did not allocate any expense associated with the proposed fees towards SFTI and various other service providers' (including Thompson Reuters, NYSE, Nasdaq, and Internap) because the MIAX Emerald architecture takes advantage of an advance in design to eliminate the need for a market data distribution gateway layer. The computation and dissemination via an API is done solely within the match engine environment and is then delivered via the member and non-member connectivity infrastructure. This architecture delivers a market data system that is more efficient both in cost and performance. Accordingly, the Exchange determined not to allocate any expense associated with SFTI and various other service providers.

The Exchange believes it is reasonable to allocate the identified portion of the other hardware and software provider expense because this includes costs for dedicated hardware licenses for switches and servers, as well as dedicated software licenses for security monitoring and reporting across the network. Without this hardware and software, the Exchange would not be able to operate and support the network and provide cToM data to its Members, non-Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the cToM data associated with the proposed fees, only the portions which the Exchange identified as being specifically mapped to providing the cToM data associated with the proposed fees, approximately 0.20% of the total applicable hardware and software provider expense. The Exchange believes this allocation is reasonable because it

³⁹

Id.

represents the Exchange's actual cost to provide the cToM data associated with the proposed fees.⁴⁰

Internal Expense Allocations

For 2021, total projected internal expense, relating to the internal costs of the Exchange to provide the cToM data associated with the proposed fees, is projected to be \$198,497. This includes, but is not limited to, costs associated with: (1) employee compensation and benefits for full-time employees that support the cToM data associated with the proposed fees, including staff in network operations, trading operations, development, system operations, and business that support those employees and functions; (2) depreciation and amortization of hardware and software used to provide the cToM data associated with the proposed fees, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support the network for trading; and (3) occupancy costs for leased office space for staff that provide the cToM data associated with the proposed fees. The breakdown of these costs is more fully-described below. For clarity, only a portion of all such internal expenses are included in the internal expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire costs contained in those items to the cToM data associated with the proposed fees.

The Exchange believes it is reasonable to allocate such internal expense described above towards the total cost to the Exchange to provide the cToM data associated with the proposed fees. In particular, the Exchange's employee compensation and benefits expense relating to providing the cToM data associated with the proposed fees is projected to be approximately \$185,002, which is only a portion of the \$9.74 million total projected expense

⁴⁰

Id.

for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portion of such expense because this includes the time spent by employees of several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development (who create the business requirement documents that the Technology staff use to develop network features, products and enhancements), and Trade Operations. As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by nearly every employee on matters relating to cToM. Without these employees, the Exchange would not be able to provide the cToM product to its Members, non-Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of the cToM product, only the portion which the Exchange identified as being specifically mapped to providing the cToM product associated with the proposed fees, approximately 2.0% of the total applicable employee compensation and benefits expense. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM data associated with the proposed fees, and not any other service, as supported by its cost review.⁴¹

The Exchange's depreciation and amortization expense relating to providing the cToM data associated with the proposed fees is projected to be \$3,635, which is only a portion of the \$1.9 million total projected expense for depreciation and amortization. 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

⁴¹ Id.

and provide the cToM product. Without this equipment, the Exchange would not be able to operate the network and provide the cToM product to its Members, non-Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing the cToM product, only the portion which the Exchange identified as being specifically mapped to providing the cToM product, approximately 0.20% of the total applicable depreciation and amortization expense, as this product would not be possible without relying on such. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM product associated with the proposed fees, and not any other service, as supported by its cost review.⁴²

The Exchange's occupancy expense relating to providing the cToM product associated with the proposed fees is projected to be \$9,860, which is only a portion of the \$0.60 million total projected expense for occupancy. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense represents the portion of the Exchange's cost to rent and maintain a physical location for the Exchange's staff who operate and support the network, including providing the cToM product. This amount consists primarily of rent for the Exchange's Princeton, New Jersey office, as well as various related costs, such as physical security, property management fees, property taxes, and utilities. The Exchange operates its Network Operations Center ("NOC") and Security Operations Center ("SOC") from its Princeton, New Jersey office location. A centralized office space is required to house the staff that operates and supports the network and Exchange products. The Exchange currently has approximately 200 employees. Approximately two-thirds of the Exchange's staff are in the Technology department, and the majority of those staff have some

⁴²Id.

role in the operation and performance of the services associated with the proposed fees. Accordingly, the Exchange believes it is reasonable to allocate the identified portion of its occupancy expense because such amount represents the Exchange's actual cost to house the equipment and personnel who operate and support the Exchange's network infrastructure and the market data services associated with the proposed fees. The Exchange did not allocate all of the occupancy expense toward the cost of providing the market data services associated with the proposed fees, only the portion which the Exchange identified as being specifically mapped to operating and supporting the network, approximately 2.0% of the total applicable occupancy expense. The Exchange believes this allocation is reasonable because it represents the Exchange's cost to provide the market data services associated with the proposed fees, and not any other service, as supported by its cost review.⁴³

Based on the above, the Exchange believes that its provision of market data services associated with the proposed fees will not result in excessive pricing or supra-competitive profit. As discussed above, the Exchange projects that its annualized expense for 2021 to provide the cToM data associated with the proposed fees is projected to be approximately \$202,657, or approximately \$16,888 per month on average. The Exchange implemented the proposed fees on July 1, 2021 in the First Proposed Rule Change. For June 2021, prior to the proposed fees, Members and non-Members subscribed to a total of 14 cToM data feeds, for which the Exchange charged \$0, for the past three years. This resulted in a month over month loss of \$16,888. For the month of November 2021, which includes the proposed fees, Members and non-Members subscribed to 14 cToM data feeds, for which the Exchange charged approximately \$17,500 for that month. This resulted in a profit of \$612 for that month

⁴³Id.

(a margin of approximately 3.5%). The Exchange believes this margin will allow it to begin to recoup its expenses and continue to invest in its technology infrastructure. Therefore, the Exchange also believes that this proposed margin is reasonable because it represents a reasonable rate of return.

Again, the Exchange cautions that this margin may fluctuate from month to month based in the uncertainty of predicting how many market data feeds may be purchased from month to month as Members and non-Members are free to add and drop subscriptions at any time based on their own business decisions. This margin may also decrease due to the significant inflationary pressure on capital items that it needs to purchase to maintain the Exchange's technology and systems. Accordingly, the Exchange believes its total projected revenue for the providing the market data services associated with the proposed fees will not result in excessive pricing or supra-competitive profit.

The Exchange believes it is reasonable, equitable and not unfairly discriminatory to allocate the respective percentages of each expense category described above towards the total cost to the Exchange of operating and supporting the network, including providing the market data services associated with the proposed fees because the Exchange performed a line-by-line item analysis of nearly every expense of the Exchange, and has determined the expenses that directly relate to providing market data services to the Exchange. Further, the Exchange notes that, without the specific third-party and internal expense items listed above, the Exchange would not be able to provide the market data services associated with the proposed fees to its Members, non-Members and their customers. Each of these expense items, including physical hardware, software, employee compensation and benefits, occupancy costs, and the depreciation and amortization of equipment, have been identified through a line-by-line item analysis to be integral to providing market data services. The proposed fees are intended to

recover the costs of providing cToM data. Accordingly, the Exchange believes that the proposed fees are fair and reasonable because they do not result in excessive pricing or supra-competitive profit, when comparing the actual costs to the Exchange versus the projected annual revenue from the proposed fees.

No market participant is required by any rule or regulation to utilize the Exchange's Complex Order functionality or subscribe to the cToM data feed. Further, unlike orders on the Exchange's Simple Order Book, Complex Orders are not protected and will never trade through Priority Customer⁴⁴ orders, thus protecting the priority that is established in the Simple Order Book.⁴⁵ Additionally, unlike the continuous quoting requirements of Market Makers in the simple order market, there are no continuous quoting requirements respecting Complex Orders. It is a business decision whether market participants utilize Complex Order strategies on the Exchange and whether to purchase cToM data to help effect those strategies.

The Proposed Fees are Reasonable when Compared to the Fees of other Options Exchanges with Similar Market Share

The Exchange does not have visibility into other options exchanges' costs to provide market data or their fee markup over those costs, and therefore cannot use other exchange's market data fees as a benchmark to determine a reasonable markup over the costs of providing market data. Nevertheless, the Exchange believes the other exchange's market data fees are a useful examples of alternative approaches to providing and charging for market data. To that

⁴⁴ The term "Priority Customer" means a person or entity that (i) is not a broker or dealer in securities and (ii) does not place more than 390 orders in listed options per day on average during a calendar month for its own beneficial accounts(s). The term "Priority Customer Order" means an order for the account of a Priority Customer. See Exchange Rule 100.

⁴⁵ The "Simple Order Book" is the Exchange's regular electronic book of orders and quotes. See Exchange Rule 518(a)(5).

end, the Exchange believes the proposed pricing is reasonable because the proposed rates are similar to or less than the fees charged by other options exchanges for similar data products.⁴⁶

Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2019.⁴⁷ This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services or Exchange products or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing any fees or higher fees. The Exchange could have sought to charge higher fees at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a low cost exchange alternative to the options industry which resulted in lower initial revenues. An example of this is cToM, for which the Exchange only now seeks to adopt fees at a level similar to or lower than those of other options exchanges.

Since, the Exchange initially established the cToM data product when it launched trading operations on March 1, 2019, all Exchange Members and non-Members have had the ability to receive the Exchange's cToM data free of charge for the past three years.⁴⁸ Since 2019, when the Exchange launched operations with Complex Order functionality, the Exchange has spent time and resources building out various Complex Order functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex

⁴⁶ See supra notes 18, 19 and 20.

⁴⁷ See supra note 34.

⁴⁸ See supra note 13.

orders.⁴⁹ The cToM data product allows market participants to better utilize the Exchange's Complex Order functionality by providing insights into the Exchange's Complex Order flow. The Exchange currently has 14 subscribers (12 Members and 2 non-Members) for its cToM data product. Each one of these subscribers have not paid any cToM data fees (other than the five months in which the First, Second and Third Proposed Rule Changes were in effect) but have received the benefit of the Exchange building out its Complex Order functionality to better compete with other exchanges complex functionality. The Exchange notes that no market participant ceased subscribing to the cToM feed since July 1, 2021, the date on which the fees became effective when proposed in the First Proposed Rule Change.

The Proposed Pricing is not Unfairly Discriminatory and Provides for the Equitable Allocation of Fees, Dues, and other Charges

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 cToM data feed 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 determine 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").⁵⁰ Pursuant to the Exchange Data Agreement, Internal Distributors are restricted to the "internal

⁴⁹ See Securities Exchange Act Release Nos. 85345 (March 18, 2019), 84 FR 10848 (March 22, 2019) (SR-EMERALD-2019-13) (adopting complex stock-option order functionality); 85346 (March 18, 2019), 84 FR 10854 (March 22, 2019) (SR-EMERALD-2019-14) (adopting additional price protection during a Complex Auction and the Complex Liquidity Exposure Process to provide additional price discovery).

⁵⁰ See Exchange Data Agreement, available at https://miaxweb2.pairsite.com/sites/default/files/page-files/MIAX_Exchange_Group_Data_Agreement_09032020.pdf.

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.⁵¹

External Distributors may distribute the Exchange’s market data to persons who are not officers, employees or affiliates of the External Distributor,⁵² and may charge their own fees for the distribution of such market data. Accordingly, the Exchange believes it is fair, reasonable and not unfairly discriminatory to assess External Distributors a higher fee for the Exchange’s market data products as External Distributors have greater usage rights to commercialize such market data. 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. 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 subscribers 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 deem the proposed fees to be unfair or inequitable, firms can discontinue their use of the cToM data.

Further, the Exchange believes that the proposal is equitable and not unfairly discriminatory because the proposed cToM fees will apply to all market participants of the Exchange on a uniform basis. The Exchange also notes that the proposed monthly cToM fees

⁵¹ See id.

⁵² See id.

for Internal and External Distributors are the same prices that the Exchange charges for its ToM data product.

The Exchange believes the proposed change to delete certain text from Section 6(a) of the Fee Schedule promotes just and equitable principles of trade and removes impediments to and perfects the mechanism of a free and open market and a national market system because the proposed change is a non-substantive edit to the Fee Schedule to remove unnecessary text. The Exchange believes that this proposed change will provide greater clarity to Members and the public regarding the Exchange's Fee Schedule and that it is in the public interest for the Fee Schedule to be accurate and concise so as to eliminate the potential for confusion.

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

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Intra-Market Competition

The Exchange believes the proposed fees will not result in any burden on intra-market competition that is not necessary or appropriate in furtherance of the purposes of the Act because the proposed fees will allow the Exchange to recoup some of its costs in providing cToM to market participants. As described above, the Exchange has operated at a cumulative net annual loss since it launched operations in 2019⁵³ due to providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services and Exchange products or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it

⁵³ See supra note 34.

could have generated from assessing any fees or higher fees. The Exchange could have sought to charge higher fees at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a low cost exchange alternative to the options industry which resulted in lower initial revenues. An example of this is cToM, for which the Exchange only now seeks to adopt fees at a level similar to or lower than those of other options exchanges.

Since the Exchange initially launched operations with the cToM data product in 2019, all Exchange Members and non-Members have had the ability to receive the Exchange's cToM data free of charge for the past three years.⁵⁴ Since 2019, when the Exchange adopted Complex Order functionality, the Exchange has spent time and resources building out various Complex Order functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex orders.⁵⁵ The Exchange now seeks to recoup its costs for providing cToM to market participants and believes the proposed fees will not result in excessive pricing or supracompetitive profit.

Inter-Market Competition

The Exchange also does not believe the proposed fees would cause any unnecessary or inappropriate burden on intermarket competition as other exchanges are free to introduce their own comparable data product and lower their prices to better compete with the Exchange's offering. The Exchange does not believe the proposed rule change would cause any unnecessary or inappropriate burden on intramarket competition. Particularly, the proposed product and fees apply uniformly to any purchaser, in that it does not differentiate between subscribers that

⁵⁴ See supra note 13.

⁵⁵ See supra note 49.

purchase cToM. The proposed fees are set at a modest level that would allow any interested Member or non-Member to purchase such data based on their business needs.

The Exchange does not believe that the proposed rule change to make a minor, non-substantive edit to Section 6(a) of the Fee Schedule by deleting unnecessary text will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. This proposed rule change is not being made for competitive reasons, but rather is designed to remedy a minor non-substantive issue and will provide added clarity to the Fee Schedule. The Exchange believes that it is in the public interest for the Fee Schedule to be accurate and concise so as to eliminate the potential for confusion on the part of market participants. In addition, the Exchange does not believe the proposal will impose any burden on inter-market competition as the proposal does not address any competitive issues and is intended to protect investors by providing further transparency regarding the Exchange's Fee Schedule.

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,⁵⁶ and Rule 19b-4(f)(2)⁵⁷ 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

⁵⁶ 15 U.S.C. 78s(b)(3)(A)(ii).

⁵⁷ 17 CFR 240.19b-4(f)(2).

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-2021-44 on the subject line.

Paper comments:

- 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-2021-44. 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-2021-44 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.⁵⁸

Vanessa Countryman
Secretary

⁵⁸ 17 CFR 200.30-3(a)(12).

Exhibit 5

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

MIAX Emerald Options Fee Schedule

6) Market Data Fees

a) MIAX Emerald Top of Market (“ToM”) and Complex Top of Market (“cToM”)

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