justify the Proposed Access Fees in the First or Second Proposed Rule Changes nor does it do so in this filing.

The Exchange Is Not Arguing That Order Flow Competition Alone Demonstrates That the Proposed Fees Are Reasonable

The SIFMA Letter asserts that ''order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.'' [77] The Exchange never directly asserted in the First or Second Proposed Rule Changes, nor does it do so in this filing, that order flow competition, alone, demonstrated that the Proposed Access Fees are reasonable and has removed any language that could imply this argument from this filing.

Other SIFMA Assertions

SIFMA's also challenges or asserts: (i) Whether the Exchange has shown that the fees are equitable and non-discriminatory; (ii) that a tiered pricing structure will encourage market participants to be more economical with the usage; (iii) greater number of ports use greater Exchange resources; and (iv) that the Exchange has not provided extensive information regarding its cost data and how it determined it cost analysis. The Exchange believes that these assertions by SIFMA basically echo assertions made in SIG Letters 1 and 3 and that it provided a response to these assertions under its response to SIG above or in provided enhanced transparency and justification in this filing.

## 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,[78] and Rule 19b–4(f)(2) [79] thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

[77] *See* SIFMA Letter, *supra* note 11.

[78] 15 U.S.C. 78s(b)(3)(A)(ii).

[79] 17 CFR 240.19b–4(f)(2).

## 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 email to *rule-comments@sec.gov.* Please include File Number SR–MIAX–2021–60 on the subject line.

*Paper Comments:*

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

All submissions should refer to File Number SR–MIAX–2021–60. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*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. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–MIAX–2021–60 and should be submitted on or before January 10, 2022.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[80]

**J. Matthew DeLesDernier,**

*Assistant Secretary.*

[FR Doc. 2021–27420 Filed 12–17–21; 8:45 am]

**BILLING CODE 8011–01–P**

[80] 17 CFR 200.30–3(a)(12).

## SECURITIES AND EXCHANGE COMMISSION

**[Release No. 34–93774; File No. SR–PEARL–2021–57]**

## Self-Regulatory Organizations; MIAX PEARL, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend the MIAX Pearl Options Fee Schedule To Adopt a Tiered-Pricing Structure for Certain Connectivity Fees

December 14, 2021.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on December 1, 2021, MIAX PEARL, LLC (''MIAX Pearl'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

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

The Exchange is filing a proposal to amend the MIAX Pearl Options Fee Schedule (the ''Fee Schedule'') to amend certain connectivity fees.

The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings/pearl* at MIAX Pearl'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 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

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

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 the Fee Schedule to adopt a tiered-pricing structure for the 10 gigabit (''Gb'') ultra-low latency (''ULL'') fiber connection available to Members [3] and non-Members. The Exchange initially filed this proposal on July 30, 2021, with the proposed fee changes effective beginning August 1, 2021 (''First Proposed Rule Change'').[4] The First Proposed Rule Change was published for comment in the **Federal Register** on August 17, 2021.[5] The Commission received one comment letter on the First Proposed Rule Change.[6] The Exchange withdrew the First Proposed Rule Change on September 24, 2021 and re-submitted the proposal on September 24, 2021, with the proposed fee changes being immediately effective (''Second Proposed Rule Change'').[7] The Second Proposed Rule Change was published for comment in the **Federal Register** on October 4, 2021.[8] The Second Proposed Rule Change provided additional justification for the proposed fee changes and addressed certain points raised in the single comment letter that was submitted on the First Proposed Rule Change. The Commission received four comment letters from three separate commenters on the Second Proposed Rule Change.[9] The Commission suspended the Second Proposed Rule Change on November 22, 2021.[10] The Exchange withdrew the Second Proposed Rule Change on December 1, 2021 and now submits this proposal for immediate effectiveness (''Third Proposed Rule Change''). This Third Proposed Rule Change meaningfully attempts to address issues or questions that have been raised by providing additional justification and explanation for the proposed fee changes and directly respond to the points raised in SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second Proposed Rule Changes,[11] and feedback provided by Commission Staff during a telephone conversation on November 18, 2021 relating to the Second Proposed Rule Change.

10Gb ULL Tiered-Pricing Structure

The Exchange proposes to amend Sections 5(a)–(b) of the Fee Schedule to provide for a tiered-pricing structure for 10Gb ULL connections for Members and non-Members. Currently, the Exchange assesses Members and non-Members a flat monthly fee of $10,000 per 10Gb ULL connection for access to the Exchange's primary and secondary facilities.

The Exchange now proposes to move from a flat monthly fee per connection to a tiered-pricing structure under which the monthly fee would vary depending on the number of 10Gb ULL connections each Member or non-Member elects to purchase per exchange. Specifically, the Exchange proposes to decrease the fee for the first and second 10Gb ULL connections for each Member and non-Member from the current flat monthly fee of $10,000 to $9,000 per connection. To encourage more efficient connectivity usage, the Exchange proposes to increase the per connection fee for Members and non-Members that purchase more than two 10Gb ULL connections. In particular, (i) the third and fourth 10Gb ULL connections for each Member or non-Member will increase from the current flat monthly fee of $10,000 to $11,000 per connection; and (ii) for the fifth 10Gb ULL connection, and each 10Gb ULL connection purchased by Members and non-Members thereafter, the fee will increase from the flat monthly fee of $10,000 to $13,000 per connection. The proposed 10Gb ULL tiered-pricing structure and fees are collectively referred to herein as the ''Proposed Access Fees.''

The Exchange believes the other exchange's connectivity fees are a useful example of alternative approaches to providing and charging for connectivity and provides the below table for comparison purposes only to show how its proposed fees compare to fees currently charged by other options exchanges for similar connectivity. As shown by the below table, the Exchange's proposed highest tier is still less than fees charged for similar connectivity provided by other options exchanges.

| Exchange | Type of port | Monthly fee |
|---|---|---|
| MIAX Pearl (as proposed) | 10Gb ULL | 1–2 connection. $9,000.00<br>3–4 connections. $11,000.00<br>5 or more. $13,000.00. |
| The NASDAQ Stock Market LLC (''NASDAQ'') [12] | 10Gb Ultra fiber | $15,000.00. |
| Nasdaq ISE LLC (''ISE'') [13] | 10Gb Ultra fiber | $15,000.00. |
| Nasdaq PHLX LLC (''PHLX'') [14] | 10Gb Ultra Fiber | $15,000.00. |
| NYSE American LLC (''Amex'') [15] | 10Gb LX LCN | $22,000.00. |

[3] The term ''Member'' means an individual or organization that is registered with the Exchange pursuant to Chapter II of these Rules for purposes of trading on the Exchange as an ''Electronic Exchange Member'' or ''Market Maker.'' Members are deemed ''members'' under the Exchange Act. *See* Exchange Rule 100.

[4] *See* Securities Exchange Act Release No. 92644 (August 11, 2021), 86 FR 46055 (August 17, 2021) (SR–PEARL–2021–36).

[5] *Id.*

[6] *See* Letter from Richard J. McDonald, Susquehanna International Group, LLC (''SIG''), to Vanessa Countryman, Secretary, Commission, dated September 7, 2021 (''SIG Letter 1'').

[7] *See* Securities Exchange Act Release No. 93162 (September 28, 2021), 86 FR 54739 (October 4, 2021) (SR–PEARL–2021–45).

[8] *Id.*

[9] *See* letters from Richard J. McDonald, SIG, to Vanessa Countryman, Secretary, Commission, dated October 1, 2021 (''SIG Letter 2'') and October 26, 2021 (''SIG Letter 3''). *See also* letter from Tyler Gellasch, Executive Director, Healthy Markets Association (''HMA''), to Hon. Gary Gensler, Chair, Commission, dated October 29, 2021 (commenting on SR–CboeEDGA–2021–017, SR–CboeBYX–2021–020, SR–Cboe-BZX–2021–047, SR–CboeEDGX–2021–030, SR–MIAX–2021–41, SR–PEARL–2021–45, and SR–EMERALD–2021–29 and stating that ''MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. *Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension*'') (emphasis added) (''HMA Letter''); *and* Ellen Green, Managing Director, Equity and Options Market Structure, Securities Industry and Financial Markets Association (''SIFMA''), to Vanessa Countryman, Secretary, Commission, dated November 26, 2021 (''SIFMA Letter'').

[10] *See* Securities Exchange Act Release No. 93639 (November 22, 2021), 86 FR 67758 (November 29, 2021).

[11] The Exchange notes that while the HMA Letter applauds the level of disclosure the Exchange included in the First and Second Proposed Rule Changes, the HMA Letter does not raise specific issues with the First or Second Proposed Rule Changes. Rather, it references the Exchange's proposals by way of comparison to show the varying levels of transparency in exchange fees filings and recommends changes to the Commission's review process of exchange fee filings generally. Therefore, the Exchange does not feel it is necessary to address the issues raised in the HMA Letter.

The Exchange will continue to assess monthly Member and non-Member network connectivity fees for connectivity to the primary and secondary facilities in any month the Member or non-Member is credentialed to use any of the Exchange APIs or market data feeds in the production environment. The Exchange proposes to pro-rate the fees when a Member or non-Member makes a change to the connectivity (by adding or deleting connections) with such pro-rated fees based on the number of trading days that the Member or non-Member has been credentialed to utilize any of the Exchange APIs or market data feeds in the production environment through such connection, divided by the total number of trading days in such month multiplied by the applicable monthly rate. The Exchange will continue to assess monthly Member and non-Member network connectivity fees for connectivity to the disaster recovery facility in each month during which the Member or non-Member has established connectivity with the disaster recovery facility.

The Exchange's MIAX Express Network Interconnect (''MENI'') can be configured to provide Members and non-Members of the Exchange network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of both the Exchange and its affiliate, Miami International Securities Exchange, LLC (''MIAX''), via a single, shared connection. Members and non-Members utilizing the MENI to connect to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange and MIAX via a single, shared connection will continue to only be assessed one monthly connectivity fee per connection, regardless of the trading platforms, market data systems, test systems, and disaster recovery facilities accessed via such connection.

2. Statutory Basis

The Exchange believes that the Proposed Access Fees are consistent with Section 6(b) of the Act [16] in general, and furthers the objectives of Section 6(b)(4) of the Act [17] in particular, in that they provide for the equitable allocation of reasonable dues, fees and other charges among Members and other persons using any facility or system which the Exchange operates or controls. The Exchange also believes the Proposed Access Fees further the objectives of Section 6(b)(5) of the Act [18] in that they are 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 are not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

On March 29, 2019, the Commission issued an Order disapproving a proposed fee change by the BOX Market LLC Options Facility to establish connectivity fees for its BOX Network (the ''BOX Order'').[19] On May 21, 2019, the Commission Staff issued guidance ''to assist the national securities exchanges and FINRA . . . in preparing Fee Filings that meet their burden to demonstrate that proposed fees are consistent with the requirements of the Securities Exchange Act.'' [20] Accordingly, the Exchange believes that the Proposed Access Fees are consistent with the Act because they (i) are reasonable, equitably allocated, not unfairly discriminatory, and not an undue burden on competition; (ii) comply with the BOX Order and the Guidance; (iii) are supported by evidence (including comprehensive revenue and cost data and analysis) that they are fair and reasonable because they will not result in excessive pricing or supra-competitive profit; and (iv) utilize a cost-based justification framework that is substantially similar to a framework previously used by the Exchange, and its affiliates MIAX Emerald, LLC (''MIAX Emerald'') and MIAX, to amend other non-transaction fees.[21]

The Proposed Access 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 imposes various access fees for market participants to access an exchange's marketplace. The Exchange deems connectivity to be access fees. It records these fees as part of its ''Access Fees'' revenue in its financial statements.

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.'' [22] 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.'' [23] 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.'' [24] The Exchange does not assert that the Proposed Access Fees are constrained by competitive forces. Rather, the Exchange asserts that the Proposed Access Fees are reasonable because they will permit recovery of the Exchange's costs in providing access services to supply 10Gb ULL connectivity 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.'' [25] 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

[12] *See* NASDAQ Rules, General 8: Connectivity, Section 1. Co-Location Services.

[13] *See* PHLX Rules, General 8: Connectivity.

[14] *See* ISE Rules, General 8: Connectivity.

[15] *See* NYSE American Options Fee Schedule, Section IV.

[16] 15 U.S.C. 78f(b).

[17] 15 U.S.C. 78f(b)(4).

[18] 15 U.S.C. 78f(b)(5).

[19] *See* Securities Exchange Act Release No. 85459 (March 29, 2019), 84 FR 13363 (April 4, 2019) (SR–BOX–2018–24, SR–BOX–2018–37, and SR–BOX–2019–04) (Order Disapproving Proposed Rule Changes to Amend the Fee Schedule on the BOX Market LLC Options Facility to Establish BOX Connectivity Fees for Participants and Non-Participants Who Connect to the BOX Network).

[20] *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'').

[21] *See* Securities Exchange Act Release Nos. 91460 (April 2, 2021), 86 FR 18349 (SR–EMERALD–2021–11) (proposal to adopt port fees, increase connectivity fees, and increase additional limited service ports); 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (proposal to adopt trading permit fees); 90980 (January 25, 2021), 86 FR 7602 (January 29, 2021) (SR–MIAX–2021–02) (proposal to increase connectivity fees).

[22] *See* Guidance, *supra* note 20.

[23] *Id.*

[24] *Id.*

[25] *Id.*

change) for the product or service in question.'' [26] The Exchange provides this analysis below.

Based on this analysis, the Exchange believes the Proposed Access Fees are reasonable and do not result in a ''supra-competitive'' [27] profit. The Exchange believes that it is important to demonstrate that the Proposed Access Fees are based on its costs and reasonable business needs. The Exchange believes the Proposed Access 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 Access Fees. Accordingly, the Exchange provides an analysis of its revenues, costs, and profitability associated with the Proposed Access Fees. This analysis includes information regarding its methodology for determining the costs and revenues associated with the Proposed Access Fees. As a result of this analysis, the Exchange believes the Proposed Access 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 connectivity to the Exchange and MIAX.

The Proposed Access Fees are based on a cost-plus model. In determining the appropriate fees to charge, the Exchange considered its costs and MIAX's costs to provide connectivity, 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 10Gb ULL connectivity) to estimate such costs,[28] as well as the relative costs of providing and maintaining 10Gb ULL connectivity, 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 10Gb ULL connectivity because of the uncertainty of forecasting subscriber decision making with respect to firms' connectivity needs and the likely potential for increased costs to procure the third-party services described below.

To determine the Exchange's costs to provide access services associated with the Proposed Access 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 Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports access services associated with the Proposed Access 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 access services associated with the Proposed Access Fees. The Exchange conducted a thorough internal analysis to determine the portion (or percentage) of each expense to allocate to the support of access services associated with the Proposed Access Fees. This analysis [29] included discussions with each Exchange department head to determine the expenses that support access services associated with the Proposed Access Fees. Once the expenses were identified, the Exchange department heads, with the assistance of our internal finance department, reviewed such expenses holistically on an Exchange-wide level to determine what portion of that expense supports providing access services for the Proposed Access Fees. The sum of all such portions of expenses represents the total cost to the Exchange to provide access services associated with the Proposed Access Fees. For the avoidance of doubt, no expense amount was allocated twice.

To determine the Exchange's projected revenue associated with the Proposed Access Fees, the Exchange analyzed the number of Members and non-Members currently utilizing the 10Gb ULL fiber connection and used a recent monthly billing cycle representative of 2021 monthly revenue. The Exchange also provided its baseline by analyzing July 2021, the monthly billing cycle prior to the Proposed Access Fees going into effect, and compared it to its expenses for that month.[30] 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 access 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 Access 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 Access Fees were not in place in 2020 or for the first seven 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 Access Fees. Accordingly, the Exchange believes it is more appropriate to analyze the Proposed Access 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 Access Fees are reasonable because they will allow the Exchange to recover its costs associated with providing access services related to the Proposed Access Fees and not result in excessive pricing or supra-competitive profit.

As outlined in more detail below, the Exchange and MIAX project that the annualized expense for 2021 to provide all network connectivity services (that is, the shared network connectivity of all connectivity alternatives of the Exchange and MIAX, but excluding MIAX Emerald) to be approximately $15.9 million per annum or an average of $1,325,000 per month. The Exchange implemented the Proposed Access Fees on August 1, 2021 in the First Proposed Rule Change. For July 2021, prior to the Proposed Access Fees, the Exchange and MIAX Members and non-Members purchased a total of 156 10Gb ULL connections for which the Exchange and MIAX charged a total of approximately $1,547,620 (this includes MIAX Pearl and MIAX Members and non-Members dropping or adding connections mid-month, resulting a pro-rated charge at times). This resulted in a profit of

[26] *Id.*

[27] *See* Guidance, *supra* note 20.

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

[29] A description of the Exchange's methodology for determining the portion (or percentage) of each expense to allocate to the Proposed Access Fees is being provide in response to comments from SIG and SIFMA. *See* SIG Letter 3 *and* SIFMA Letter, *supra* note 9.

[30] *Id.*

$222,620 for that month (a profit margin of 14.4%). For the month of October 2021, which includes the tiered rates for 10Gb ULL connectivity for the Proposed Access Fees, MIAX Pearl and MIAX Exchange Members and non-Members purchased a total of 154 10Gb ULL connections for which the Exchange and MIAX charged a total of approximately $1,684,000 for that month (also including pro-rated connection charges). This resulted in a profit of $359,000 for that month for a profit margin of 21.3% (a modest 6.9% profit margin increase from July 2021 to October 2021 from 14.4% to 21.3%). The Exchange believes that the Proposed Access Fees are reasonable because they are designed to generate an additional 6.9% of profit margin per-month (reflecting a 21.3% profit margin).[31] The Exchange cautions that this profit margin may fluctuate from month to month based on the uncertainty of predicting how many connections may be purchased from month to month as Members and non-Members are able to add and drop connections at any time based on their own business decisions, which they frequently do. This profit 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 and MIAX have 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.

As mentioned above, the Exchange and MIAX project that the annualized expense for 2021 to provide network connectivity services (all connectivity alternatives) to be approximately $15.9 million per annum or an average of $1,325,000 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. 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 access services associated with the Proposed Access 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 access to its Members is not fixed. The Exchange believes the Proposed Access Fees are a reasonable attempt to offset a portion of the costs to the Exchange associated with providing access to its network infrastructure.

The Exchange only has four primary sources of revenue and cost recovery mechanisms: Transaction fees, access fees (which includes the Proposed 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 2017.[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.[35] To do so, the Exchange chose to waive the fees for some non-transaction related services 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 higher fees.

The Exchange believes that the Proposed Access 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 access services versus the total annual revenue that the Exchange projects to collect in connection with services associated with the Proposed Access Fees. As mentioned above, for 2021,[36] the total annual expense for MIAX Pearl and MIAX for providing the access services associated with the Proposed Access Fees is projected to be approximately $15.9 million, or approximately $1,325,000 per month. This projected total annual expense is comprised of the following, all of which are directly related to the access services associated with the Proposed Access 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 Access Fees.[37] As noted above, the Exchange believes it is more appropriate to analyze the Proposed Access 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.[38]

[31] The Exchange notes that this profit margin differs from the First and Second Proposed Rule Changes because the Exchange now has the benefit of using a more recent billing cycle under the Proposed Access Fees (October 2021) and comparing it to a baseline month (July 2021) from before the Proposed Access Fees were in effect.

[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).

[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 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.

[34] The Exchange has incurred a cumulative loss of $86 million since its inception in 2017 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://www.sec.gov/Archives/edgar/vprr/2100/21000461.pdf.*

[35] The term ''System'' means the automated trading system used by the Exchange for the trading of securities. *See* Exchange Rule 100.

[36] The Exchange has not yet finalized its 2021 year end results.

[37] 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.

[38] 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

The $15.9 million projected total annual expense is directly related to the access services associated with the Proposed Access Fees, and not any other product or service offered by the Exchange or MIAX. It does not include general costs of operating matching engines and other trading technology. No expense amount was allocated twice. Further, the Exchange notes that, with respect to the MIAX Pearl expenses included herein, those expenses only cover the MIAX Pearl options market; expenses associated with MIAX Pearl Equities are accounted for separately and are not included within the scope of this filing.

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 access services associated with the Proposed Access 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 access services associated with the Proposed Access Fees.

External Expense Allocations

For 2021, expenses relating to fees paid by the Exchange and MIAX to third-parties for products and services necessary to provide the access services associated with the Proposed Access Fees is projected to be $3.9 million. This includes, but is not limited to, a portion of the fees paid to: (1) Equinix for data center services, including 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 and its affiliates' office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; (3) Secure Financial Transaction Infrastructure (''SFTI''),[39] which supports connectivity and feeds for the entire U.S. options industry; (4) various other services providers (including Thompson Reuters, NYSE, Nasdaq, and Internap), which provide content, connectivity services, and infrastructure services for critical components of options connectivity and network services; and (5) 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, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to the providing access services in connection with the Proposed Access Fees. Only a portion of all fees paid to such third-parties is included in the third-party expenses described herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the access services associated with the Proposed Access Fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the Proposed Access Fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, the Exchange notes that expenses associated with its affiliate, MIAX Emerald, are accounted for separately and are not included within the scope of this filing. Further, as part its ongoing assessment of costs and expenses (described above), 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. Therefore, 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.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange and MIAX to provide the access services associated with the Proposed Access 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 access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the access services associated with the Proposed Access Fees, only that portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees, approximately 62% of the total applicable Equinix expense. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[40]

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 and MIAX Emerald, 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 access services associated with the Proposed Access Fees. The Exchange did not allocate all of the Zayo expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the Proposed Access Fees, approximately 62% of the total applicable Zayo expense. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed

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. 87876 (December 31, 2019), 85 FR 757 (January 7, 2020) (SR–PEARL–2019–36). 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.

[39] *See supra* note 33.

[40] 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.

Access Fees, and not any other service, as supported by its cost review.[41]

The Exchange believes it is reasonable to allocate the identified portions of the SFTI expense and various other service providers' (including Thompson Reuters, NYSE, Nasdaq, and Internap) expense because those entities provide connectivity and feeds for the entire U.S. options industry, as well as the content, connectivity services, and infrastructure services for critical components of the network. Without these services from SFTI and various other service providers, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the SFTI and other service providers' expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees, approximately 75% of the total applicable SFTI and other service providers' expense. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees.[42]

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 access to its Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees, approximately 51% 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 access services associated with the Proposed Access Fees.[43]

Internal Expense Allocations

For 2021, total projected internal expenses relating to the internal costs of the Exchange and MIAX to provide the access services associated with the Proposed Access Fees is projected to be approximately $12 million. This includes, but is not limited to, costs associated with: (1) Employee compensation and benefits for full-time employees that support the access services associated with the Proposed Access Fees, including staff in network operations, trading operations, development, system operations, business, as well as staff in general corporate departments (such as legal, regulatory, and finance) that support those employees and functions (including an increase as a result of the higher determinism project); (2) depreciation and amortization of hardware and software used to provide the access services associated with the Proposed Access 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 access services associated with the Proposed Access Fees. The breakdown of these costs is more fully-described below.

For clarity, and as stated above, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to the providing access services in connection with the Proposed Access Fees. 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 access services associated with the Proposed Access Fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the Proposed Access Fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, as part its ongoing assessment of costs and expenses (described above), 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 internal expense described above towards the total cost to the Exchange and MIAX to provide the access services associated with the Proposed Access Fees. In particular, the Exchange's and MIAX's combined employee compensation and benefits expense relating to providing the access services associated with the Proposed Access Fees is projected to be $6.1 million, which is only a portion of the approximately $12.6 million (for MIAX) and $9.2 million (for MIAX Pearl) 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 and enhancements), Trade Operations, Finance (who provide billing and accounting services relating to the network), and Legal (who provide legal services relating to the network, such as rule filings and various license agreements and other contracts). As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by employees on matters relating to the provision of access services associated with the Proposed Access Fees. Without these employees, the Exchange would not be able to provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees, approximately 28% 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 access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[44]

The Exchange's and MIAX's depreciation and amortization expense relating to providing the services associated with the Proposed Access Fees is projected to be $5.3 million, which is only a portion of the $4.8 million (for MIAX) and $2.9 million (for MIAX Pearl) total projected expense for depreciation and amortization. The Exchange believes it is reasonable to

[41] *Id.*

[42] *Id. See also supra* note 33 (regarding SFTI's announced fee increases).

[43] *See supra* note 40.

[44] *Id.*

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 access services associated with the Proposed Access Fees. Without this equipment, the Exchange would not be able to operate the network and provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees, approximately 70% of the total applicable depreciation and amortization expense, as these access services 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 access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[45]

The Exchange's and MIAX's occupancy expense relating to providing the services associated with the Proposed Access Fees is projected to be approximately $0.6 million, which is only a portion of the $0.6 million (for MIAX) and $0.5 million (for MIAX Pearl) 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 access services associated with the Proposed Access Fees. 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. 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 access services associated with the Proposed Access 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 access services associated with the Proposed Access Fees. The Exchange did not allocate all of the occupancy expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to operating and supporting the network, approximately 53% of the total applicable occupancy expense. The Exchange believes this allocation is reasonable because it represents the Exchange's cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[46]

The Exchange notes that a material portion of its total overall expense is allocated to the provision of access services (including connectivity, ports, and trading permits). The Exchange believes this is reasonable and in line, as the Exchange operates a technology-based business that differentiates itself from its competitors based on its more deterministic and resilient trading systems that rely on access to a high performance network, resulting in significant technology expense. Over two-thirds of Exchange staff are technology-related employees. The majority of the Exchange's expense is technology-based. As described above, the Exchange and MIAX have only four primary sources of fees to recover their costs; thus, the Exchange believes it is reasonable to allocate a material portion of its total overall expense towards access fees.

Based on the above, the Exchange believes that its provision of access services associated with the Proposed Access 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 network connectivity services (all connectivity alternatives) to be approximately $15.9 million per annum or an average of $1,325,000 per month. The Exchange implemented the Proposed Access Fees on August 1, 2021. For July 2021, prior to the Proposed Access Fees, Exchange Members and non-Members purchased a total of 156 10Gb ULL connections for which the Exchange and MIAX charged approximately $1,547,620. This resulted in a profit of $222,620 (a profit margin of 14.4%) for that month (including pro-rated charges). For the month of October 2021, which includes the tiered 10Gb ULL connectivity fees pursuant to the Proposed Access Fees, the Exchange and MIAX had Members and non-Members purchasing a total of 154 10Gb ULL connections for which the Exchange and MIAX charged a total of approximately $1,684,000 (including pro-rated charges). This resulted in a profit of $359,000 for that month for a profit margin of 21.3% (a modest 6.9% profit margin increase from July 2021 to October 2021 from 14.4% to 21.3%). The Exchange believes that the Proposed Access Fees are reasonable because they are designed to generate an additional 6.9% of profit margin per month (reflecting a 21.3% profit margin).[47] The Exchange believes this modest increase in profit margin will allow it to continue to recoup its expenses and continue to invest in its technology infrastructure. Therefore, the Exchange also believes that this proposed profit margin increase is reasonable because it represents a reasonable rate of return.

Again, the Exchange cautions that this profit margin may fluctuate from month to month based in the uncertainty of predicting how many connections may be purchased from month to month as Members and non-Members are free to add and drop connections at any time based on their own business decisions. This profit 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.[48] Accordingly, the Exchange believes its total projected revenue for the providing the access services associated with the Proposed Access 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 access services associated with the Proposed Access Fees because the Exchange performed a line-by-line item analysis of nearly every expense of the Exchange, and has determined the

[45] *Id.*

[46] *Id.*

[47] *See supra* note 31.

[48] *See supra* note 32.

expenses that directly relate to providing access 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 access services associated with the Proposed Access Fees to its 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 access services. The Proposed Access Fees are intended to recover the costs of providing access to the Exchange's System. Accordingly, the Exchange believes that the Proposed Access 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 Access Fees.

The Proposed Tiered-Pricing Structure Is Not Unfairly Discriminatory and Provides for the Equitable Allocation of Fees, Dues, and Other Charges

The Exchange believes the proposed tiered-pricing structure is reasonable, fair, equitable, and not unfairly discriminatory because it will apply to all Members and non-Members in the same manner based on the amount of 10Gb ULL connectivity they require based on their own business decisions and its usage of Exchange resources. All similarly situated Members and non-Members would be subject to the same fees. The fees do not depend on any distinction between Members and non-Members because they are solely determined by the individual Members' or non-Members' business needs and its impact on Exchange resources.

The proposed tiered-pricing structure is not unfairly discriminatory and provides for the equitable allocation of fees, dues, and other charges because it is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange and the amount of the fees are based on the number of connections a Member or non-Member utilizes. Charging a higher fee to a Member or non-Member that utilizes numerous connections is directly related to the increased costs the Exchange incurs in providing and maintaining those additional connections. The proposed tiered pricing structure should also enable the Exchange to better monitor and provide access to the Exchange's network to ensure sufficient capacity and headroom in the System.

The Exchange believes that the proposal to move to a tiered-pricing structure for its 10Gb ULL connections is reasonable, equitably allocated and not unfairly discriminatory because the majority of Members and non-Members that purchase 10Gb ULL connections will either save money or pay the same amount after the tiered-pricing structure is implemented. After the effective date of the First Proposed Rule Change on August 1, 2021, approximately 80% of the firms that purchased at least one 10Gb ULL connection experienced a decrease in their monthly connectivity fees while only approximately 20% of firms experienced an increase in their monthly connectivity fees as a result of the proposed tiered-pricing structure when compared to the flat monthly fee structure. To illustrate, firms that purchase only one 10Gb ULL connection per month used to pay the flat rate of $10,000 per month for that one 10Gb ULL connection. Pursuant to the proposed tiered-pricing structure, these firms now pay $9,000 per month for that same one 10Gb ULL connection, saving $1,000 per month or $12,000 annually. Further, firms that purchase two 10Gb ULL connections per month previously paid a flat rate of $20,000 per month ($10,000 × 2) for those two 10Gb ULL connections. Pursuant to the proposed tiered-pricing structure, these firms now pay $18,000 per month ($9,000 × 2) for those two 10Gb ULL connections, saving $2,000 per month or $24,000 annually.

To achieve a consistent, premium network performance, the Exchange must build out and continue to maintain a network that has the capacity to handle the message rate requirements of not only firms that consume minimal Exchange connectivity resources, but also those firms that most heavily consume Exchange connectivity resources, network consumers, and purchasers of 10Gb ULL connectivity. 10Gb ULL connectivity is not an unlimited resource as the Exchange needs to purchase additional equipment to satisfy requests for additional connections. The Exchange also needs to provide personnel to set up new connections, service requests related to adding new and/or deleting existing connections, respond to performance queries from, and to maintain those connections on behalf of Members and non-Members. Also, those firms that utilize 10Gb ULL connectivity typically generate a disproportionate amount of messages and order traffic, usually billions per day across the Exchange. These billions of messages per day consume the Exchange's resources and significantly contribute to the overall network connectivity expense for storage and network transport capabilities. The Exchange also has to purchase additional storage capacity on an ongoing basis to ensure it has sufficient capacity to store these messages as part of it surveillance program and to satisfy its record keeping requirements under the Exchange Act.[49]

The Exchange sought to design the proposed tiered-pricing structure to set the amount of the fees to relate to the number of connections a firm purchases. The more connections purchased by a firm likely results in greater expenditure of Exchange resources and increased cost to the Exchange. With this in mind, the Exchange proposes to decrease the monthly fees for those firms who connect to the Exchange as part of their best execution obligations and generally tend to send the least amount of orders and messages over those connections. The Exchange notes that firms that primarily route orders seeking best-execution generally only purchase a limited number of connections. Those firms also generally send less orders and messages over those connections, resulting in less strain on Exchange resources. Therefore, the connectivity costs will likely be lower for these firms based on the proposed tiered-pricing structure.

On a similar note, the Exchange proposes to increase the fee for those firms that purchase more connections resulting in greater expenditure of Exchange resources and increased cost to the Exchange. The Exchange notes that these firms that purchase more than two to four 10Gb ULL connections essentially do so for competitive reasons amongst themselves and choose to utilize numerous connections based on their business needs and desire to attempt to access the market quicker by using the connection with the least amount of latency. These firms are generally engaged in sending liquidity removing orders to the Exchange and seek to add more connections so they can access resting liquidity ahead of their competitors. For instance, a Member may have just sent numerous messages and/or orders over one of their 10Gb ULL connections that are in queue to be processed. That same Member then seeks to enter an order to remove liquidity from the Exchange's Book.

[49] 17 CFR 240.17a–1 (recordkeeping rule for national securities exchanges, national securities associations, registered clearing agencies and the Municipal Securities Rulemaking Board).

That Member may choose to send that order over one or more of their other 10Gb ULL connections with less message and/or order traffic to ensure that their liquidity taking order accesses the Exchange quicker because that connection's queue is shorter. These firms also tend to frequently add and drop connections mid-month to determine which connections have the least latency, which results in increased costs to the Exchange to constantly make changes in the data center.

The firms that engage in the above-described liquidity removing and advanced trading strategies typically require multiple connections and, therefore, generate higher costs by utilizing more of the Exchange's resources. Those firms may also conduct other latency measurements over their connections and drop and simultaneously add connections mid-month based on their own assessment of their performance. This results in Exchange staff processing such requests, potentially purchasing additional equipment, and performing the necessary network engineering to replace those connections in the data center. Therefore, the Exchange believes it is equitable for these firms to experience increased connectivity costs based on their disproportionate pull on Exchange resources to provide the additional connectivity.

In addition, the proposed tiered-pricing structure is equitable because it is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange. Section 6(b)(5) of the Exchange Act requires the Exchange to provide access on terms that are not unfairly discriminatory.[50] As stated above, 10Gb ULL connectivity is not an unlimited resource and the Exchange's network is limited in the amount of connections it can provide. However, the Exchange must accommodate requests for additional connectivity and access to the Exchange's System to ensure that the Exchange is able to provide access on non-discriminatory terms and ensure sufficient capacity and headroom in the System. To accommodate requests for additional connectivity on top of current network capacity constraints, requires that the Exchange purchase additional equipment to satisfy these requests. The Exchange also needs to provide personnel to set up new connections and to maintain those connections on behalf of Members and non-Members. The proposed tiered-pricing structure is equitable because it is designed to encourage Members and non-Members to be more efficient and economical in selecting the amount of connectivity they request while balancing that against the Exchange's increased expenses when expanding its network to accommodate additional connectivity.

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 equities exchanges' costs to provide connectivity or their fee markup over those costs, and therefore cannot use other exchange's connectivity fees as a benchmark to determine a reasonable markup over the costs of providing connectivity. Nevertheless, the Exchange believes the other exchange's connectivity fees are a useful example of alternative approaches to providing and charging for connectivity. To that end, the Exchange believes the proposed tiered-pricing structure for 10Gb ULL connections is reasonable because the proposed highest tier is still less than fees charged for similar connectivity provided by other options exchanges with comparable market shares. For example, NASDAQ (equity options market share of 8.88% as of November 26, 2021 for the month of November)[51] charges a monthly fee of $10,000 per 10Gb fiber connection and $15,000 per 10Gb Ultra fiber connection.[52] The highest tier of the Exchange's proposed fee structure for a 10Gb ULL connection is $2,000 per month less than NASDAQ and, unlike NASDAQ, the Exchange does not charge installation fees. The Exchange notes that the same connectivity fees described above for NASDAQ also apply to its affiliates, ISE[53] (equity options market share of 7.96% as of November 26, 2021 for the month of November)[54] and PHLX (equity options market share of 9.31% as of November 26, 2021 for the month of November).[55] Amex (equity options market share of 5.05% as of November 26, 2021 for the month of November)[56] charges $15,000 per connection initially plus $22,000 monthly per 10Gb LX LCN circuit connection.[57] Again, the highest tier of the Exchange's proposed fee structure for a 10Gb ULL connection is $9,000 per month lower than the Amex connectivity fee after the first month.

In the each of the above cases, the Exchange's highest tier in the proposed tiered-pricing structure is significantly lower than that of competing options exchanges with similar market share. Despite proposing lower or similar fees to that of competing options exchanges with similar market share, the Exchange believes that it provides a premium network experience to its Members and non-Members via a highly deterministic System, enhanced network monitoring and customer reporting, and a superior network infrastructure than markets with higher market shares and more expensive connectivity alternatives. Each of the connectivity rates in place at competing options exchanges were filed with the Commission for immediate effectiveness and remain in place today.

The Exchange further believes that the Proposed Access Fees are reasonable, equitably allocated and not unfairly discriminatory because, for one 10Gb ULL connection, the Exchange provides each Member or non-Member access to all twelve (12) matching engines on MIAX Pearl and a vast majority choose to connect to all twelve (12) matching engines. The Exchange believes that other exchanges require firms to connect to multiple matching engines.[58]

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

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

With respect to intra-market competition, the Exchange does not believe that the proposed rule change would place certain market participants at the Exchange at a relative disadvantage compared to other market participants or affect the ability of such market participants to compete. As stated above, the Exchange does not

[50] 15 U.S.C. 78f(b)(5).

[51] *See* ''The market at a glance,'' *available at https://www.miaxoptions.com/* (last visited November 26, 2021).

[52] *See* NASDAQ Rules, General 8: Connectivity, Section 1. Co-Location Services.

[53] *See* ISE Rules, General 8: Connectivity.

[54] *See supra* note 51.

[55] *See id.* See also PHLX Rules, General 8: Connectivity.

[56] *See supra* note 51.

[57] *See* Amex Fee Schedule, Section IV.

[58] *See* Specialized Quote Interface Specification, Nasdaq PHLX, Nasdaq Options Market, Nasdaq BX Options, Version 6.5a, Section 2, Architecture (revised August 16, 2019), *available at http://www.nasdaqtrader.com/content/technicalsupport/specifications/TradingProducts/SQF6.5a-2019-Aug.pdf.* The Exchange notes that it is unclear whether the NASDAQ exchanges include connectivity to each matching engine for the single fee or charge per connection, per matching engine. *See also* NYSE Technology FAQ and Best Practices: Options, Section 5.1 (How many matching engines are used by each exchange?) (September 2020). The Exchange notes that NYSE provides a link to an Excel file detailing the number of matching engines per options exchange, with Arca and Amex having 19 and 17 matching engines, respectively.

believe its proposed pricing will impose a barrier to entry to smaller participants and notes that its proposed connectivity pricing structure for its 10Gb ULL connections is associated with relative usage of the various market participants. Further, the majority of firms that purchase 10Gb ULL connections may either save money or pay the same amount after the tiered-pricing structure is implemented. While total cost may be increased for market participants with larger capacity needs or for business/technical preferences, such options provide far more capacity and are purchased by those that consume more resources from the network. Accordingly, the proposed tiered-pricing structure does not favor certain categories of market participants in a manner that would impose an undue burden on competition; rather, the allocation reflects the network resources consumed by the various usage of market participants—lowest bandwidth consuming members pay the least, and highest bandwidth consuming members pays the most, particularly since higher bandwidth consumption translates to higher costs to the Exchange.

The Exchange also does not believe that the proposed rule change will result in any burden on inter-market competition that is not necessary or appropriate in furtherance of the purposes of the Act. As discussed above, options market participants are not forced to connect to all options exchanges. The Exchange operates in a highly competitive environment, and as discussed above, its ability to price access and connectivity is constrained by competition among exchanges and third parties. There are other options markets of which market participants may connect to trade options. There is also a possible range of alternative strategies, including routing to the exchange through another participant or market center or accessing the Exchange indirectly. For example, there are 15 other U.S. options exchanges, which the Exchange must consider in its pricing discipline in order to compete for market participants. In this competitive environment, market participants are free to choose which competing exchange or reseller to use to satisfy their business needs. As a result, the Exchange believes this proposed rule change permits fair competition among national securities exchanges. Accordingly, the Exchange does not believe its proposed fee changes impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

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

As described above, the Exchange received one comment letter on the First Proposed Rule Change and four comment letters on the Second Proposed Rule Change.[59] The Exchange now responds to the comment letters in this filing.

HMA Letter

The HMA Letter does not raise specific issues with the First or Second Proposed Rule Changes. Instead the HMA Letter is generally critical of the exchange fee filing process contained in Section 19(b)(3)(A)(ii) of the Act,[60] and Rule 19b–4(f)(2) thereunder,[61] and other exchanges' fee filings in recent years. The HMA Letter, however, applauds the level of disclosure the Exchange included in the First and Second Proposed Rule Changes and was supportive of the efforts made by the Exchange and its affiliates to provide transparency and justify their proposed fees. The HMA Letter specifically notes that:

> MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension. For example, MIAX detailed the associated projected revenues generated from the connectivity fees by user class, again in a clear attempt to comply with the SRO Fee Filing Guidance.[62]

As the HMA Letter notes, the Exchange refiled its same fee proposals to include significantly greater information about who is impacted and how, primarily at the request of the Commission Staff and in response to comments. The Exchange is again refiling its proposal to include more information surrounding the proposed fees and to respond to commenters.

SIG Letter 2

SIG Letter 2 argues that the Exchange, in withdrawing the First Proposed Rule Change and refiling the Second Proposed Rule Change, ''improperly circumvent[ed] the procedural protections embedded in Exchange Act Section 19(b)(3)(C), and subvert[ed] the balance of interests upheld therein.'' [63] SIG's assertion that the Exchange's entire reason for withdrawing and refiling was to subvert the protections of the Exchange Act are entirely without merit. The Exchange withdrew the First Proposed Rule Change and replaced it with the Second Proposed Rule Change in good faith to provide additional justification and explanation for the proposed fee changes and did so in compliance with the Exchange Act. The same is true in this filing, where the Exchange withdrew the Second Proposed Rule Change and submitted this filing to provide additional justification and explanation for the proposed fee changes and directly responds to certain points raised in SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second Proposed Rule Changes.

As SIG well knows, exchanges are able withdraw and refile various proposals (including fee changes and other rule changes) with the Commission for a multitude of reasons, not the least of which is to address feedback and comments from market participants and Commission Staff. The Exchange is well within the bounds of the Act and the rules and regulations thereunder to withdraw a proposed rule change and replace it with a new proposed rule change in good faith and to enhance the filing to ensure it complies with the requirements of the Act.

SIG Letters 1 and 3

As an initial matter, SIG Letter 1 cites Rule 700(b)(3) of the Commission's Rules of Fair Practice which places ''the burden to demonstrate that a proposed rule change is consistent with the Act on the self-regulatory organization that proposed the rule change'' and states that a ''mere assertion that the proposed rule change is consistent with those requirements . . . is not sufficient.'' [64] SIG Letter 1's assertion that the Exchange has not met this burden is without merit, especially considering the overwhelming amounts of revenue and cost information the Exchange included in the First and Second Proposed Rule Changes and this filing.

Until recently, the Exchange operated at a net annual loss since it launched operations in 2017.[65] As stated above, 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,

[59] *See supra* note 9.

[60] 15 U.S.C. 78s(b)(3)(A)(ii).

[61] 17 CFR 240.19b–4.

[62] *See* HMA Letter, *supra* note 9.

[63] *See* SIG Letter 2, *supra* note 9.

[64] 17 CFR 201.700(b)(3).

[65] *See supra* note 33.

and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange's marketplace. The Exchange believes it has achieved this standard in this filing and in the First Proposed Rule Change, Second Proposed Rule Change. Similar justifications for the proposed fee change included in the First and Second Proposed Rule Changes, but also in this filing, were previously included in similar fee changes filed by the Exchange and its affiliates, MIAX Emerald and MIAX, and SIG did not submit a comment letter on those filings.[66] Those filings were not suspended by the Commission and continue to remain in effect. The justification included in each of the prior filings was the result of numerous withdrawals and re-filings of the proposals to address comments received from Commission Staff over many months. The Exchange and its affiliates have worked diligently with Commission Staff on ensuring the justification included in past fee filings fully support an assertion that those fee changes are consistent with the Act.[67]

[66] *See* Securities Exchange Act Release Nos. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend the MIAX Pearl Fee Schedule to Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers); 91460 (April 2, 2021), 86 FR 18349 (April 8, 2021) (SR–EMERALD–2021–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt Port Fees, Increase Certain Network Connectivity Fees, and Increase the Number of Additional Limited Service MIAX Emerald Express Interface Ports Available to Market Makers); *and* 91857 (May 12, 2021), 86 FR 26973 (May 18, 2021) (SR–MIAX–2021–19) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers).

[67] *See, e.g.,* Securities Exchange Act Release No. 90196 (October 15, 2020), 85 FR 67064 (October 21, 2020) (SR–EMERALD–2020–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt One-Time Membership Application Fees and Monthly Trading Permit Fees). *See* Securities Exchange Act Release Nos. 90601 (December 8, 2020), 85 FR 80864 (December 14, 2020) (SR–EMERALD–2020–18) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–11); *and* 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–18). The Exchange initially filed a proposal to remove the cap on the number of additional Limited Service MEO Ports available to Members on April 9, 2021. *See* SR–PEARL–2021–17. On April 22, 2021, the Exchange withdrew SR–PEARL–2021–17 and refiled that proposal (without increasing the actual fee amounts) to provide further clarification regarding the Exchange's revenues, costs, and profitability any time more Limited Service MEO Ports become available, in general, (including information regarding the Exchange's methodology for determining the costs and revenues for additional Limited Service MEO Ports). *See* SR–PEARL–2021–20. On May 3, 2021, the Exchange withdrew SR–PEARL–2021–20 and refiled that proposal to further clarify its cost methodology. *See* SR–PEARL–2021–22. On May 10, 2021, the Exchange withdrew SR–PEARL–2021–22 and refiled that proposal as SR–PEARL–2021–23. *See* Securities Exchange Act Release No. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23).

The Exchange leveraged its past work with Commission Staff to ensure the justification provided herein and in the First and Second Proposed Rule Changes include the same level of detail (or more) as the prior fee changes that survived Commission scrutiny. The Exchange's detailed disclosures in fee filings have also been applauded by one industry group which noted, ''[the Exchange's] filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension.'' [68] That same commenter also noted their ''worry that the Commission's process for reviewing and evaluating exchange filings may be inconsistently applied.'' [69]

Therefore, a finding by the Commission that the Exchange has not met its burden to show that the proposed fee change is consistent with the Act would be different than the Commission's treatment of similar past filings, would create further ambiguity regarding the standards exchange fee filings should satisfy, and is not warranted here.

In addition, the arguments in SIG Letter 1 do not support their claim that the Exchange has not met its burden to show the proposed rule change is consistent with the Act. Prior to, and after submitting the First Proposed Rule Change, the Exchange solicited feedback from its Members, including SIG. SIG relayed their concerns regarding the proposed change. The Exchange then sought to work with SIG to address their concerns and gain a better understanding of the access/connectivity/quoting infrastructure of other exchanges. In response, SIG provided no substantive suggestions on how to amend the First Proposed Rule Change to address their concerns and instead chose to submit three comment letters. One could argue that SIG is using the comment letter process not to raise legitimate regulatory concerns regarding the proposal, but to inhibit or delay proposed fee changes by the Exchange.

[68] *See* HMA Letter, *supra* note 9.

[69] *Id.* (providing examples where non-transaction fee filings by other exchanges have been permitted to remain effective and not suspended by the Commission despite less disclosure and justification).

Nonetheless, the Exchange has enhanced its cost and revenue analysis and data in this Third Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Among other things, these enhancements include providing baseline information in the form of data from the month before the Proposed Access Fees became effective.

The Exchange now responds to SIG remaining claims below. SIG Letter 3 first summarizes its arguments made in SIG Letters 1 and 2 and incorporates those arguments by reference. The Exchange responded to the arguments in SIG Letter 2 above. SIG Letter 3 incorporates the following arguments from SIG Letter 1, which the Exchange will first respond to in turn, below:

(1) the prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable; (2) profit margin comparisons do not support the Exchanges' claims that they will not realize a supracompetitive profit, the Exchanges' respective profit margins of 30% (for MIAX and Pearl) and 51% (for Emerald) in relation to connectivity fees are high in any event, and comparisons to competing exchanges' overall operating profit margins are an inapt ''apples-to-oranges'' comparison; (3) the Exchanges provide no support for their claim that their proposed tiered pricing structure is needed to encourage efficiency in connectivity usage; (4) the Exchanges provided no support for their claim that the tiered pricing structure allows them to better monitor connectivity usage, nor that this is an appropriate basis for the pricing structure in any event; (5) the Exchanges' claim that firms who purchase more 10Gb ULL lines generate ''higher'' costs is misleading, and they offered no support for this claim in any event; (6) no other exchange has tiered connectivity pricing; (7) the recoupment of investment for exchange infrastructure has no supporting nexus with the claim that the proposed fees are reasonable, equitably allocated, and not unfairly discriminatory; and (8) the recoupment of investment claim belies the Exchanges' claim of encouraging efficiency in connectivity usage.[70]

## The Exchange's Examples of Members Terminating Their Exchange Access Shows That Members Have Choice Whether To Connect to an Exchange Based on Fees

SIG asserts that ''the prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable.'' [71] SIG misinterprets the

[70] *See* SIG Letter 3, *supra* note 9.

[71] *Id.*

Exchange's argument here. The Exchange provided the examples of firms terminating access to certain markets due to fees to support its assertion that firms, including market makers, are not required to connect to all markets and may drop access if fees become too costly for their business models and alternative or substitute forms of connectivity are available to those firms who choose to terminate access. The Commission Staff Guidance also provides that ''[a] statement that substitute products or services are available to market participants in the relevant market (*e.g.,* equities or options) can demonstrate competitive forces if supported by evidence that substitute products or services exist.'' [72] Nonetheless, the Third Proposed Rule Change no longer makes this assertion as a basis for the proposed fee change and, therefore, the Exchange believes it is not necessary to respond to this portion of SIG Letters 1 and 3.

The Proposed Fees Will Not Result in Excessive Pricing or Supra-Competitive Profit

Next, SIG asserts that the Exchange's ''profit margin comparisons do not support the Exchange's claims that they will not realize a supracompetitive profit,'' that ''the Exchanges' respective profit margins of 30% (for MIAX and Pearl) and 51% (for Emerald) in relation to connectivity fees are high in any event,'' and ''comparisons to competing exchanges' overall operating profit margins are an inapt 'apples-to-oranges' comparison.''

The Exchange has provided ample data that the proposed fees would not result in excessive pricing or a supra-competitive profit. In this Third Proposed Rule Change, the Exchange no longer utilizes a comparison of its profit margin to that of other options exchanges as a basis that the Proposed Access Fees are reasonable. Rather, the Exchange has enhanced its cost and revenue analysis and data in this Third Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Therefore, the Exchange believes it is no longer necessary to respond to this portion of SIG Letters 1 and 3.

The Proposed Tiered Pricing Structure Is Not Unfairly Discriminatory

SIG challenges the proposed fees by arguing that ''the Exchange[ ] provide[s] no support for [its] claim that [the] proposed tiered pricing structure is needed to encourage efficiency in connectivity usage and the Exchange[] provided no support for [the] claim that the tiered pricing structure allows them to better monitor connectivity usage, nor that this is an appropriate basis for the pricing structure in any event.'' The Exchange provided additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

Firms That Purchase More 10Gb ULL Generate Higher Exchange Costs

SIG argues that ''the Exchanges' claim that firms who purchase more 10Gb ULL lines generate 'higher' costs is misleading,'' and that the Exchange has ''offered no support for this claim in any event.'' As described above, the Exchange sought to design the proposed tiered-pricing structure to set the amount of the fees to relate to the number of connections a firm purchases and the Exchange believes it provided ample justification for the proposed tiered-pricing structure in the First and Second Proposed Rule Changes. Nonetheless, the Exchange provides additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

The Proposed Tiered-Pricing Structure for 10Gb ULL Connectivity Will Provide Cost Savings for the Majority of Exchange Members

The SIG Letter incorrectly asserts that no other exchange has tiered connectivity pricing. Numerous other exchanges provide tiered fee structures for various other types of access to their platforms, including trading permits and ports.[73] The Exchange provided adequate evidence that most firms would incur cost savings under the Proposed Access Fees in the First and Second Proposed Rule Changes and this filing. Nonetheless, the Exchange believes it provided additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

Recoupment of Exchange Infrastructure Costs

Nowhere in this proposal or in the First Proposed Rule Change did the Exchange assert that it benefits competition to allow a new exchange entrant to recoup their infrastructure costs. Rather, the Exchange asserts above that its ''proposed fees are reasonable, equitably allocated and not unfairly discriminatory because the Exchange, and its affiliates, are still recouping the initial expenditures from building out their systems while the legacy exchanges have already paid for and built their systems.'' The Exchange no longer makes this assertion in this filing and, therefore, does not believe is it necessary to respond to SIG's assertion here.

SIFMA Letter

In sum, the SIFMA Letter asserts that the Exchange has failed to demonstrate that the Proposed Access Fees are reasonable for three reasons:

(i) ''The Exchanges' ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.''

(ii) ''. . . order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.''

(iii) ''the Exchanges' argument that the products and services subject to the Proposals are optional does not reflect marketplace reality, nor does it demonstrate that the proposed fees are reasonable.''

The Exchange responds to each of SIFMA's challenges in turn below.

The Exchange Never Set Forth a ''Platform Competition'' Argument

The SIFMA Letter asserts that the Exchange's ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.'' [74] The Exchange does not believe it is necessary to respond to this assertion because it has never set forth a ''platform competition'' [75] argument to

[72] *See* Guidance, *supra* note 20.

[73] *See* Cboe Exchange, Inc. Fee Schedule, Logical Connectivity Fees ($750 per port per month for the first 5 BOE/FIX Logical Ports and $800 per port per month for each port over 5; $1,500 per port per month for the first 5 BOE Bulk Logical Ports, $2,500 per port per month for ports 6–30, and $3,000 per port per month for each port over 30); Cboe BXZ Exchange, Inc. Options Fee Schedule, Options Logical Port Fees, Ports with Bulk Quoting Capabilities ($1,500 per port per month for the first and second ports, $2,500 per port per month for three or more); Nasdaq Stock Market LLC, Options 7, Pricing Schedule, Section 3 ($1,500 per port per month for the first 5 SQF ports; $1,000 per port per month for SQF ports 15–20; and $500 per port per month for all SQF ports over 21); NYSE American Options Fee Schedule, Section V.A., Port Fees and NYSE Arca Options Fee Schedule, Port Fees (both charging $450 per port for order/quote entry ports 1–40 and $150 per port for ports 41 and greater).

[74] *See* SIFMA Letter, *supra* note 9.

[75] Pursuant to the Guidance, ''platform theory generally asserts that when a business offers facilities that bring together two or more distinct types of customers, it is the overall return of the platform, rather than the return of any particular fees charged to a type of customer, that should be used to assess the competitiveness of the platform's market.'' *See* Guidance, *supra* note 20.

justify the Proposed Access Fees in the First or Second Proposed Rule Change nor does it do so in this filing.

The Exchange Is Not Arguing That Order Flow Competition Alone Demonstrates That the Proposed Fees Are Reasonable

The SIFMA Letter asserts that ''order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.'' [76] The Exchange never directly asserted in the First or Second Proposed Rule Changes, nor does it do so in this filing, that order flow competition, alone, demonstrated that the Proposed Access Fees are reasonable and has removed any language that could imply this argument from this filing.

Other SIFMA Assertions

SIFMA's also challenges or asserts: (i) The substitutability or optionality of 10Gb ULL connections, (ii) whether the Exchange has shown that the fees are equitable and non-discriminatory; (iii) that a tiered pricing structure will impose higher cost on all market participants; (iv) that a tiered pricing structure will encourage market participants to be more economical with the usage; (v) greater number of connections use greater Exchange resources; and (vi) that the Exchange has not provided extensive information regarding its cost data and how it determined it cost analysis. The Exchange believes that these assertions by SIFMA basically echo assertions made in SIG Letters 1 and 3 and that it provided a response to these assertions under its response to SIG above or in provided enhanced transparency and justification in this filing.

## 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,[77] and Rule 19b–4(f)(2) [78] thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

## IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

*Electronic Comments*

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–PEARL–2021–57 on the subject line.

*Paper Comments*

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

All submissions should refer to File Number SR–PEARL–2021–57. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*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. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–PEARL–2021–57 and should be submitted on or before January 10, 2022.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[79]

**J. Matthew DeLesDernier,**

*Assistant Secretary.*

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[76] *See* SIFMA Letter, *supra* note 9.

[77] 15 U.S.C. 78s(b)(3)(A)(ii).

[78] 17 CFR 240.19b–4(f)(2).

[79] 17 CFR 200.30–3(a)(12).

## SECURITIES AND EXCHANGE COMMISSION

**[Release No. 34–93772; File No. SR–EMERALD–2021–43]**

## Self-Regulatory Organizations; MIAX Emerald, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt a Tiered-Pricing Structure for Additional Limited Service MIAX Emerald Express Interface Ports

December 14, 2021.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on December 1, 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 (the ''Fee Schedule'') to amend certain port fees.

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 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

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.