SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-93165; File No. SR-MIAX-2021-41)

September 28, 2021

Self-Regulatory Organizations; Miami International Securities Exchange LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend the MIAX Fee Schedule to Adopt a Tiered-Pricing Structure for Certain Connectivity Fees

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 September 24, 2021, Miami International Securities Exchange LLC ("MIAX" 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 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, 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

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

2 17 CFR 240.19b-4.

in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

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

1. Purpose

The Exchange proposes to amend 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 believes a tiered-pricing structure will encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange. This 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.[4]

The Exchange initially filed this proposal on July 30, 2021, with the proposed fee changes effective beginning August 1, 2021.[5] The First Proposed Rule Change was published for comment in the Federal Register on August 17, 2021.[6] The Commission received one comment letter on the First Proposed Rule Change.[7] The Exchange has withdrawn the First Proposed Rule Change and now submits this proposal, which is immediately effective. This

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

4 The term "System" means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

5 See Securities Exchange Act Release No. 92643 (August 11, 2021), 86 FR 46034 (August 17, 2021) (SR-MIAX-2021-35) (the "First Proposed Rule Change").

6 Id.

7 See Letter from Richard J. McDonald, Susquehanna International Group, LLC ("SIG"), to Vanessa Countryman, Secretary, Commission, dated September 7, 2021 ("SIG Comment Letter").

proposal provides additional justification for the proposed fee changes and addresses certain points raised in the single comment letter that submitted on the First 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 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 MIAX 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 MIAX 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, MIAX PEARL, LLC ("MIAX Pearl"), 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 Pearl 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.

Pursuant to the proposed tiered-pricing structure, any firm that is a Member of both MIAX and MIAX Pearl Options and purchases three or four total 10Gb ULL connections, can effectively allocate one or two 10Gb ULL connections to MIAX at the lowest rate and the other one or two 10Gb ULL connections to MIAX Pearl Options at the lowest rate. This allocation will provide additional cost saving benefits to those Members and non-Members, due to the shared MENI infrastructure of MIAX and MIAX Pearl.

2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act[8] in general, and furthers the objectives of Section 6(b)(4) of the Act[9] in particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among Exchange Members and issuers and other persons using any facility or system which the Exchange operates or controls. The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act[10] in that it is designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public interest and is not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

The Exchange notes that it operates in a highly competitive market in which market participants can readily favor competing venues if they deem fee levels at a particular venue to be excessive. In such an environment, the Exchange must continually adjust its fees for services and products, in addition to order flow, to remain competitive with other exchanges. The Exchange believes that the proposed changes reflect this competitive environment.

The Exchange believes the proposal to move from a flat fee per month for the 10Gb ULL connection to a tiered-pricing structure is reasonable, equitably allocated and not unfairly discriminatory because the Exchange believes the proposed structure would encourage firms to

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8 15 U.S.C. 78f(b).

9 15 U.S.C. 78f(b)(4).

10 15 U.S.C. 78f(b)(5).

be more economical and efficient in the number of connections they purchase. The Exchange believes this will 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 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 x 2) for those two 10Gb ULL connections. Pursuant to the proposed tiered-pricing structure, these firms now pay $18,000 per month ($9,000 x 2) for those two 10Gb ULL connections, saving $2,000 per month or $24,000 annually. Additionally, any firm that is a Member of both MIAX and MIAX Pearl Options and purchases four total 10Gb ULL connections, can allocate two 10Gb ULL connections to MIAX at the $9,000 rate (saving $2,000 per month as compared to the flat fee) and two 10Gb ULL connections to MIAX Pearl Options at the $9,000 rate (saving an additional $2,000 per month as compared to the flat fee), for a total savings of $4,000 per month, or $48,000 annually, due to the shared MENI infrastructure of MIAX and MIAX Pearl.

The Exchange also notes that firms that primarily route orders seeking best-execution generally only need a limited number of connections to fulfill that obligation. Therefore, the connectivity costs will likely be lower for these firms based on the proposed tiered-pricing structure. The firms that engage in advanced trading strategies typically require multiple connections and, therefore, generate higher costs by utilizing more of the Exchange's resources. These firms experienced increased connectivity costs based on the proposed tiered-pricing structure, as shown by the 20% of firms that may have experienced an increase in their monthly connectivity fees. Additionally, the firms that purchase a higher amount of 10Gb ULL connections tend to have specific business-driven trading strategies, as opposed to firms engaging solely in order routing as part of their best-execution obligations.

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. The Exchange believes that it is important to demonstrate that these fees are based on its costs and reasonable business needs. The Exchange believes the Proposed Access Fees will allow the Exchange to offset expense the Exchange has and will incur, and that the Exchange is providing sufficient transparency (as described below) into how the Exchange determined to charge such fees. Accordingly, the Exchange is providing 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.

In order to determine the Exchange's costs to provide the 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 the access services. The sum of all such portions of expenses represents the total cost to the Exchange to provide the access services associated with the Proposed Access Fees. For the avoidance of doubt, no expense amount was allocated twice. The Exchange is also providing 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.

In order 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, utilizing a recent monthly billing cycle representative of 2021 monthly revenue, extrapolated annualized revenue on a going-forward basis. 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, discounts that can be achieved due to lower trading volume and vice versa, market participant consolidation, etc. Additionally, the Exchange similarly does not factor into its analysis future cost growth or decline. 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 fair and reasonable because they will not result in excessive pricing or supra-competitive profit when comparing the Exchange's total annual expense associated with providing the services associated with the Proposed Access Fees versus the total projected annual revenue the Exchange will collect for providing those services.

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On March 29, 2019, the Commission issued its 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 (the "BOX Order").[11] On May 21, 2019, the Commission issued the Staff Guidance on SRO Rule Filings Relating to Fees.[12] 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 Pearl and MIAX Emerald, LLC ("MIAX Emerald"), to establish or increase other non-transaction fees.[13] Accordingly, the Exchange believes that the Proposed Access Fees are consistent with the Act.

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As of September 20, 2021, the Exchange had a market share of only 5.47% of the U.S. equity options industry for the month of September 2021.[14] The Exchange is not aware of any evidence that a market share of approximately 5-6% provides the Exchange with anti-competitive pricing power. If the Exchange were to attempt to establish unreasonable pricing for

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11 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).

12 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").

13 See Securities Exchange Act Release Nos. 90981 (January 25, 2021), 86 FR 7582 (January 29, 2021) (SR-PEARL-2021-01) (proposal to increase connectivity fees); 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).

14 See "The market at a glance," available at https://www.miaxoptions.com/ (last visited September 20, 2021).

any of its means provided to access the Exchange, market participants may look to access the Exchange via other means such as through a third party service provider, or look to connect to the Exchange via a competing exchange with cheaper access alternatives that also provides routing services to the Exchange. In addition, existing market participants that are connected to the Exchange may choose to disconnect from the Exchange or reduce their number of connections to the Exchange as a means to reduce their overall costs.

The Exchange believes the proposed tiered-pricing structure for 10Gb ULL connections is equitable and 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, The Nasdaq Stock Market LLC ("NASDAQ") (equity options market share of 7.79% as of September 22, 2021 for the month of September)[15] charges a monthly fee of $10,000 per 10Gb fiber connection and $15,000 per 10Gb Ultra fiber connection.[16] 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, Nasdaq ISE, LLC ("ISE") (equity options market share of 6.47% as of September 22, 2021 for the month of September)[17] and NASDAQ PHLX LLC ("PHLX") (equity options market share of 11.25% as of September 22, 2021 for the month of September).[18] NYSE American LLC ("Amex") (equity options market share of 7.89% as of September 22, 2021 for the month of

15 See "The market at a glance," available at https://www.miaxoptions.com/ (last visited September 22, 2021).

16 See Nasdaq Stock Market LLC Rules, General 8: Connectivity, Section 1. Co-Location Services; Nasdaq ISE Rules, General 8: Connectivity.

17 See id.

18 See id. See also PHLX Rules, General 8: Connectivity.

September)[19] charges $15,000 per connection initially plus $22,000 monthly per 10Gb LX LCN circuit connection.[20] 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. Further, as described in more detail below, those exchanges generate higher overall operating profit margins and higher "access fees" than the Exchange, even with this proposed fee change. 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 experiencer 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 also notes that the higher connectivity fees described above for competing exchanges have been in place for years (over 8 years in some cases), allowing those exchanges to derive significantly more revenue from their access fees. For example, in 2013, Amex adopted the pricing for its 10Gb LX LCN connection of $15,000 as an initial charge per connection and then a monthly fee of $20,000 per connection. The initial fee per connection is higher than the Exchange's highest proposed tier of $13,000 per connection, notwithstanding the fact that the monthly fee is $7,000 more than the Exchange's highest proposed tier and Amex's fees have

19 See supra note 15.

20 See NYSE American Options Fee Schedule, Section IV.

been in place for nearly 8 years.[21] NYSE Arca, Inc. ("Arca") also adopted the exact same fees as Amex in 2013 and has been collecting higher fees than the Exchange's current proposal for nearly 8 years as well (initial charge of $15,000 per connection and then a monthly fee of $20,000 per connection).[22] Not only were the fees that Amex and Arca adopted in 2013 significantly higher than the fees the Exchange currently proposes, in 2016, Amex and Arca raised the monthly fees even higher to $22,000 per connection.[23] Similarly, in 2013, NASDAQ adopted the pricing for its 10Gb Ultra connection of $1,500 per connection as a one-time installation fee and then a monthly fee of $15,000 per connection.[24] The Exchange's current proposal does not contemplate any sort of installation fee or one-time fee and the monthly fee for the Exchange's highest connectivity tier ($13,000) is $2,000 lower than the fees adopted 8 years ago by Amex, Arca and NASDAQ. Separately, the Exchange is not aware of any reason why market participants could not simply drop their access (or not initially access an exchange) if an exchange were to establish prices for its non-transaction fees that, in the determination of such market participant, did not make business or economic sense for such market participant to access such exchange. No options market participant is required by rule, regulation, or competitive forces to be a Member of the Exchange. As evidence of the fact that market participants can and do drop their access to exchanges based on non-transaction fee pricing, R2G

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21 See Securities Exchange Act Release No. 70982 (December 4, 2013), 78 FR 74197 (December 10, 2013) (SR-NYSEMKT-2013-97).

22 See Securities Exchange Act Release No. 70981 (December 4, 2013), 78 FR 74203 (December 10, 2013) (SR-NYSEARCA-2013-131).

23 See Securities Exchange Act Release Nos. 79729 (January 4, 2017), 82 FR 3061 (January 10, 2017) (SR-NYSEARCA-2016-172); 79728 (January 4, 2017), 82 FR 3035 (January 10, 2017) (SR-NYSEMKT-2016-126).

24 See Securities Exchange Act Release No. 70129 (August 7, 2013), 78 FR 49308 (August 13, 2013 (SR-NASDAQ-2013-099).

Services LLC ("R2G") filed a comment letter after BOX's proposed rule changes to increase its connectivity fees (SR-BOX-2018-24, SR-BOX-2018-37, and SR-BOX-2019-04). The R2G Letter stated, "[w]hen BOX instituted a $10,000/month price increase for connectivity; we had no choice but to terminate connectivity into them as well as terminate our market data relationship. The cost benefit analysis just didn't make any sense for us at those new levels." Similarly, the Exchange's affiliate, MIAX Emerald, noted in a recent filing that once MIAX Emerald issued a notice that it was instituting MEI Port fees, among other non-transaction fees, one MIAX Emerald Member dropped its access to MIAX Emerald as a result of those fees.[25] Accordingly, these examples show that if a market participant believes, based on its business model, that an exchange charges too high of a fee for connectivity and/or other non-transaction fees for its relevant marketplace, market participants can choose to drop their access to such exchange.

In order to provide more detail and to quantify the Exchange's costs associated with providing access to the Exchange in general, 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 as the services associated

[25] See Securities Exchange Act Release No. 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) (adopting tiered MEI Port fee structure ranging from $5,000 to $20,500 per month).

with the Proposed Access Fees increase. 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: 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.

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 and MIAX Pearl project 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. For 2021[26], the total annual expense for providing the access services associated with the Proposed Access Fees (that is, the shared network connectivity of the Exchange and MIAX Pearl, but excluding MIAX Emerald) is projected to be approximately $15.9 million. The approximately $15.9 million in 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

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

by the Exchange to third-parties for certain products and services; and (2) internal expense, relating to the internal costs of the Exchange and MIAX Pearl to provide the services associated with the Proposed Access Fees.[27] 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.[28] The $15.9 million in 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. It does not include general costs of operating matching systems and other trading technology, and no expense amount was allocated twice.

As discussed, 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

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27 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.

28 For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled "Operating Expenses Incurred Directly or Allocated From Parent," in the Exchange's 2019 Form 1 Amendment containing its financial statements for 2018. See Securities Exchange Act Release No. 87875 (December 31, 2019), 85 FR 770 (January 7, 2020) (SR-MIAX-2019-51). 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.

such portions of expenses represents the total cost of the Exchange to provide access services associated with the Proposed Access Fees.

For 2021, total third-party expense, relating to fees paid by the Exchange and MIAX Pearl to third-parties for certain products and services for the Exchange to be able 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, 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 MIAX Pearl's office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; (3) Secure Financial Transaction Infrastructure ("SFTI")[29], 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, only a portion of all fees paid to such third-parties is included in the third-party expense herein, and no expense amount is allocated twice. Accordingly, the Exchange and MIAX Pearl do not allocate their entire information technology and communication costs to the

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29 In fact, on October 22, 2019, the Exchange was notified by SFTI that it is again raising its fees charged to the Exchange by approximately 11%, without having to show that such fee change complies with the Act by being reasonable, equitably allocated, and not unfairly discriminatory. It is unfathomable to the Exchange that, given the critical nature of the infrastructure services provided by SFTI, that its fees are not required to be rule-filed with the Commission pursuant to Section 19(b)(1) of the Act and Rule 19b-4 thereunder. See 15 U.S.C. 78s(b)(1) and 17 CFR 240.19b-4, respectively.

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

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange and MIAX Pearl 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.[30]

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking the Exchange with its affiliates, MIAX Pearl and MIAX 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 Access Fees, and not any other service, as supported by its cost review.[31]

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30 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.

31 Id.

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.[32]

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

32 Id.

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.[33]

For 2021, total projected internal expense, relating to the internal costs of the Exchange and MIAX Pearl 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, 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 and MIAX Pearl do not allocate their entire costs contained in those items to the access services associated with the Proposed Access Fees.

The Exchange believes it is reasonable to allocate such internal expense described above towards the total cost to the Exchange to provide the access services associated with the

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33 Id.

Proposed Access Fees. In particular, the Exchange's and MIAX Pearl's combined employee compensation and benefits expense relating to providing the access services associated with the Proposed Access Fees is projected to be approximately $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 each employee 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.[34]

The Exchange's and MIAX Pearl's combined 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 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.[35]

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34 Id.

35 Id.

The Exchange's and MIAX Pearl's combined 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, NJ 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 150 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. Without this office space, 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. 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.[36]

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 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 Pearl have only four primary sources of fees to recover their costs; thus, the Exchange and MIAX Pearl believe it is reasonable to allocate a material portion of their total overall expense towards access fees.

Accordingly, based on the facts and circumstances presented, the Exchange believes that its provision of the access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit. To illustrate, on a going-forward, fully-annualized basis, the Exchange and MIAX Pearl project that annualized revenue for providing the access services associated with the Proposed Access Fees would be approximately $22 million per annum, based on a recent billing cycle.[37] The Exchange and MIAX Pearl project that their annualized revenue for providing network connectivity services (all connectivity alternatives) to

36 Id.

37 The Exchange and MIAX Pearl also continue to project approximately $69,550 in monthly revenue through 1Gb connections; however, the Exchange and MIAX Pearl do not propose to adjust the fees for those connections at this time.

be approximately $22.8 million per annum. The Exchange and MIAX Pearl project that their annualized expense for providing network connectivity services (all connectivity alternatives) to be approximately $15.9 million per annum. Accordingly, on a fully-annualized basis, the Exchange and MIAX Pearl believe their 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, as the Exchange and MIAX Pearl will make a profit margin of only approximately 30% inclusive of the Proposed Access Fees and all other connectivity alternatives ($22.8 million in total connectivity revenue minus $15.9 million in expense = $6.9 million in profit per annum). Additionally, this profit margin does not take into account the cost of capital expenditures ("CapEx") the Exchange and MIAX Pearl historically spent or are projected to spend each year on CapEx going forward.

For the avoidance of doubt, none of the expenses included herein relating to the access services associated with the Proposed Access Fees relate to the provision of any other services offered by the Exchange or MIAX Pearl. Stated differently, no expense amount of the Exchange is allocated twice. 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 the MIAX Pearl equities market and the Exchange's affiliate, MIAX Emerald, are accounted for separately and are not included within the scope of this filing. Stated differently, no expense amount of the Exchange is also allocated to MIAX Pearl Equities or MIAX Emerald.

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 expenses that directly relate to providing access to the Exchange and MIAX Pearl. Further, the Exchange notes that, without the specific third-party and internal 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 Exchange's and MIAX Pearl's costs of providing access to their Systems. 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 Exchange believes the proposed changes are reasonable, equitably allocated and not unfairly discriminatory, and do not result in a "supra-competitive"[38] profit. Of note, the Guidance defines "supra-competitive profit" as profits that exceed the profits that can be obtained in a competitive market.[39] With the proposed changes, the Exchange and MIAX Pearl anticipate that their collective connectivity profit margin will be approximately 30%, inclusive of the Proposed Access Fees and all other connectivity alternatives. In order 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

38 See supra note 12.

39 See id.

heavily consume Exchange connectivity resources, network consumers, and purchasers of 10Gb ULL connectivity, which generate billions of messages per day across the Exchange and MIAX Pearl. 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. Given that 10Gb ULL purchasers utilize the most resources across the network, the Exchange believes that it is reasonable to operate at a profit margin of approximately 30% for connectivity, inclusive of the Proposed Access Fees and all other connectivity alternatives. Such profit margin should enable the Exchange to continue to invest in its network and systems, maintain its current infrastructure, support future enhancements to network connectivity, and continue to offer enhanced customer reporting and monitoring services.

While the proposed fees are similar to or less than that of other options exchanges,[40] as discussed above, the incremental increase in revenue generated from the 30% profit margin for connectivity will allow the Exchange and MIAX Pearl to further invest in their system architecture and matching engine functionality to the benefit of all market participants. The ability to continue to invest in technology and systems will also enable the Exchange to improve the determinism and overall performance of not only its system connectivity, but overall performance including the resiliency and efficiency of its matching engines. The revenue generated under the proposed rule change would also provide the exchange with the resources necessary to further innovate and enhance its systems and seek additional improvements or functionality to offer market participants generally. The Exchange believes that these investments, in turn, will benefit all investors by encouraging other exchanges to further invest, innovate, and improve their own systems in response.

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40 See supra notes 16, 18 and 20.

Based on the 2020 Audited Financial Statements of competing options exchanges (since the 2021 Audited Financial Statements will likely not become publicly available until early July 2022, after the Exchange has submitted this filing), the Exchange's revenue that is derived from its access fees is in line with the revenue that is derived from access fees of competing exchanges. For example, the total revenue from "access fees"[41] for 2020 for MIAX was $15,805,000. MIAX projects that the total revenue from "access fees" for 2021 for MIAX will be $21,727,396, inclusive of the Proposed Access Fees described herein. Similarly, the total revenue from "access fees"[42] for 2020 for MIAX Pearl was $11,422,000. MIAX Pearl projects that the total revenue from "access fees" for 2021 for MIAX Pearl will be $20,001,243, inclusive of the Proposed Access Fees described herein.

The Exchange's projected revenue from access fees is still less than, or similar to, the access fee revenues generated by access fees charged by other U.S. options exchanges. For example, the Cboe Exchange, Inc. ("Cboe") reported $70,893,000 in "access and capacity fee"[43] revenue for 2020. Cboe C2 Exchange, Inc. ("C2") reported $19,016,000 in "access and capacity fee" revenue for 2020.[44] Cboe BZX Exchange, Inc. ("BZX") reported $38,387,000 in "access

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41 As described in the Exchange's Audited Financial Statements, fees for "access services" are assessed to exchange members for the opportunity to trade and use other related functions of the exchanges. See https://www.sec.gov/Archives/edgar/vprr/2100/21000461.pdf.

42 As described in MIAX Pearl's Audited Financial Statements, fees for "access services" are assessed to exchange members for the opportunity to trade and use other related functions of the exchanges. See Form 1 Amendment, at https://www.sec.gov/Archives/edgar/vprr/2100/21000460.pdf.

43 According to Cboe, access and capacity fees represent fees assessed for the opportunity to trade, including fees for trading-related functionality. See Form 1 Amendment, at https://www.sec.gov/Archives/edgar/vprr/2100/21000465.pdf.

44 See id.

and capacity fee" revenue for 2020.[45] Cboe EDGX Exchange, Inc. ("EDGX") reported $26,126,000 in "access and capacity fee" revenue for 2020.[46] PHLX reported $20,817,000 in "Trade Management Services" revenue for 2019.[47] The Exchange notes it is unable to compare "access fee" revenues with PHLX (or other affiliated NASDAQ exchanges) because after 2019, the "Trade Management Services" line item was bundled into a much larger line item in PHLX's Form 1, simply titled "Market services."[48]

The Exchange also believes that, based on the 2020 Audited Financial Statements of competing options exchanges, the Exchange's overall operating margin is in line with or less than the operating margins of competing options exchanges, including the revenue and expense associated with the Proposed Access Fees. For example, the 2020 operating margin for MIAX was 46%. The 2020 operating margin for MIAX Pearl was -18%.[49] Based on competing exchanges' Form 1 Amendments, ISE's operating profit margin for 2020 was approximately 85%; PHLX's operating profit margin for 2020 was approximately 49%; NASDAQ's operating profit margin for 2020 was approximately 62%; Arca's operating profit margin for 2020 was approximately 55%; Amex's operating profit margin for 2020 was approximately 59%; Cboe's

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45 See id.

46 See id.

47 According to PHLX, "Trade Management Services" includes "a wide variety of alternatives for connectivity to and accessing [the PHLX] markets for a fee. These participants are charged monthly fees for connectivity and support in accordance with [PHLX's] published fee schedules." See Form 1 Amendment, at https://www.sec.gov/Archives/edgar/vprr/2001/20012246.pdf.

48 See Form 1 Amendment, at https://www.sec.gov/Archives/edgar/vprr/2100/21000475.pdf.

49 This information is provided in response to the SIG Comment Letter. See supra note 7.

operating profit margin for 2020 was approximately 74%; and BZX's operating profit margin for 2020 was approximately 52%.

The Exchange 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 twenty-four (24) matching engines on MIAX and a vast majority choose to connect to all twenty-four (24) matching engines. The Exchange believes that other exchanges require firms to connect to multiple matching engines.[50] Further, the Exchange notes that no Member or non-Member has altered its use of 10Gb ULL connectivity since the proposed fee changes went into effect on August 1, 2021 via the First Proposed Rule Change.

The Exchange further believes its proposed fees are reasonable, equitably allocated and not unfairly discriminatory because the Exchange believes that it benefits overall competition in the marketplace to allow relatively new entrants like the Exchange and its affiliates, MIAX Pearl and MIAX Emerald, to propose fees that may help these new entrants recoup their substantial investment in building out costly infrastructure. The Exchange and its affiliates have historically set their fees purposefully low in order to attract business and market share, and the proposed

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50 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.

tiered-pricing structure will help make the rates consistent with other exchanges while not raising costs for a majority of the Exchange's Members and non-Members.

The Guidance provides that in determining whether a proposed fee is constrained by significant competitive forces, the Commission will consider whether there are reasonable substitutes for the product or service that is the subject of a proposed fee. As described below, the Exchange believes substitute products and services are available to market participants, including, among other things, other options exchanges that market participants may connect to in lieu of the Exchange, indirect connectivity to the Exchange via a third-party reseller.

There is also no regulatory requirement that any market participant connect to any one options exchange, that any market participant connect at a particular connection speed or act in a particular capacity on the Exchange, or trade any particular product offered on an exchange. Moreover, membership is not a requirement to participate on the Exchange. A market participant may submit orders to the Exchange via a Sponsored User.[51] Indeed, the Exchange is unaware of any one options exchange whose membership includes every registered broker-dealer. Based on a recent analysis conducted by the Cboe Exchange, Inc. ("Cboe"), as of October 21, 2020, only three (3) of the broker-dealers, out of approximately 250 broker-dealers, were members of at least one exchange that lists options for trading and were members of all 16 options exchanges.[52] Additionally, the Cboe Fee Filing found that several broker-dealers were

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51 See Exchange Rule 210. The Sponsored User is subject to the fees, if any, of the Sponsoring Member. The Exchange notes that the Sponsoring Member is not required to publicize, let alone justify or file with the Commission its fees, and as such could charge the Sponsored User any fees it deems appropriate, even if such fees would otherwise be considered supra-competitive, or otherwise potentially unreasonable or uncompetitive.

52 See Securities Exchange Act Release No. 90333 (November 4, 2020), 85 FR 71666 (November 10, 2020) (SR-CBOE-2020-105) (the "Cboe Fee Filing"). The Cboe Fee Filing cited to the October 2020 Active Broker Dealer Report, provided by the Commission's Office of Managing Executive, on October 8, 2020.

members of only a single exchange that lists options for trading and that the number of members at each exchange that trades options varies greatly.[53]

The Exchange notes that non-Member third-parties, such as Service Bureaus and Extranets, resell the Exchange's connectivity. This indirect connectivity is another viable alternative for market participants to trade on the Exchange without connecting directly to the Exchange (and thus not pay the Exchange's connectivity fees), which alternative is already being used by non-Members and further constrains the price that the Exchange is able to charge for connectivity and other access fees to its market. The Exchange notes that it could, but chooses not to, preclude market participants from reselling its connectivity. The Exchange also chooses not to adopt fees that would be assessed to third-party resellers on a per customer basis (i.e., fees based on the number of firms that connect to the Exchange indirectly via the third-party). Indeed, the Exchange does not receive any connectivity revenue when connectivity is resold by a third-party, which often is resold to multiple customers, some of whom are agency broker-dealers that have numerous customers of their own.[54] In sum, the Exchange believes this creates and fosters a competitive environment and subjects the Exchange to competitive forces in pricing its connectivity and access fees. Particularly, in the event that a market participant views the Exchange's direct connectivity and access fees as more or less attractive than competing markets, that market participant can choose to connect to the Exchange indirectly or may choose not to connect to the Exchange and connect instead to one or more of the other 15 options

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53 Id.

54 The Exchange notes that resellers are not required to publicize, let alone justify or file with the Commission their fees, and as such could charge the market participant any fees it deems appropriate (including connectivity fees higher than the Exchange's connectivity fees), even if such fees would otherwise be considered potentially unreasonable or uncompetitive fees.

markets. Accordingly, the Exchange believes that the Proposed Access Fees are fair and reasonable and do not result in excessive pricing or supra-competitive profit.

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 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 a 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

The Exchange received one comment on the proposed rule change.[55] The Exchange notes that the Exchange, and its affiliates MIAX Pearl and MIAX Emerald, justified similar fee changes in the past with similar, if not identical, justifications in previous filings that have been noticed by the Commission for public comment and are currently in effect.[56] Nonetheless, the

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55 See the SIG Comment Letter, supra note 7.

56 See Securities Exchange Act Release Nos. 90980 (January 25, 2021), 86 FR 7602 (January 29, 2021) (SR-MIAX-2021-02); 90981 (January 25, 2021), 86 FR 7582 (January 29, 2021) (SR-PEARL-2021-01); 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR-EMERALD-2021-03); 91460 (April 2, 2021), 86 FR 18349 (April 8, 2021) (SR-EMERALD-2021-11).

Exchange has sought to address the commenters concerns via the enhanced justification and additional information included in this proposal.

## 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,[57] and Rule 19b-4(f)(2)[58] thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

## IV. Solicitation of Comments

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

Electronic Comments:

- Use the Commission's Internet comment form (http://www.sec.gov/rules/sro.shtml); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-MIAX-2021-41 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.

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57 15 U.S.C. 78s(b)(3)(A)(ii).

58 17 CFR 240.19b-4(f)(2).

All submissions should refer to File Number SR-MIAX-2021-41. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet 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-2021-41 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[59]

J. Matthew DeLesDernier
Assistant Secretary

[59] 17 CFR 200.30-3(a)(12).