

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-92662; File No. SR-EMERALD-2021-25)

August 13, 2021

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

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 August 2, 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

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 additional Limited Service MIAX Emerald Express Interface (“MEI”) Ports³ available to Market Makers.⁴ The Exchange believes a tiered-pricing structure will encourage Market Makers 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.⁵

Additional Limited Service MEI Port Tiered-Pricing Structure

The Exchange proposes to amend the fees for additional Limited Service MEI Ports. Currently, the Exchange allocates two (2) Full Service MEI Ports⁶ and two (2) Limited Service

³ The MIAX Emerald Express Interface (“MEI”) is a connection to the MIAX Emerald System that enables Market Makers to submit simple and complex electronic quotes to MIAX Emerald. See the Definitions Section of the Fee Schedule.

⁴ The term “Market Makers” refers to Lead Market Makers (“LMMs”), Primary Lead Market Makers (“PLMMs”), and Registered Market Makers (“RMMs”) collectively. See the Definitions Section of the Fee Schedule and Exchange Rule 100.

⁵ The term “System” means the automated trading system used by the Exchange for the trading of securities. See the Definitions Section of the Fee Schedule and Exchange Rule 100.

⁶ “Full Service MEI Ports” means a port which provides Market Makers with the ability to send Market Maker simple and complex quotes, eQuotes, and quote purge messages to the MIAX Emerald System. Full Service MEI Ports are also capable of receiving administrative information. Market Makers are limited to two Full Service MEI Ports per Matching Engine. See the Definitions Section of the Fee Schedule.

MEI Ports⁷ per matching engine⁸ to which each Market Maker connects. Market Makers may also request additional Limited Service MEI Ports for each matching engine to which they connect. The Full Service MEI Ports, Limited Service MEI Ports and the additional Limited Service MEI Ports all include access to the Exchange's primary and secondary data centers and its disaster recovery center. Market Makers may request additional Limited Service MEI Ports for which they are assessed a \$100 monthly fee for each additional Limited Service MEI Port for each matching engine.

The Exchange now proposes to move from a flat monthly fee per additional Limited Service MEI Port for each matching engine to a tiered-pricing structure per additional Limited Service MEI Ports for each matching engine under which the monthly fee would vary depending on the number of additional Limited Service MEI Ports the Market Maker elects to purchase. Specifically, the Exchange will continue to provide the first and second additional Limited Service MEI Ports for each matching engine free of charge, as described above, per the initial allocation of Limited Service MEI Ports that Market Makers receive. Specifically, (i) the third and fourth additional Limited Service MEI Ports for each matching engine will increase from the

⁷ "Limited Service MEI Ports" means a port which provides Market Makers with the ability to send simple and complex eQuotes and quote purge messages only, but not Market Maker Quotes, to the MIAX Emerald System. Limited Service MEI Ports are also capable of receiving administrative information. Market Makers initially receive two Limited Service MEI Ports per Matching Engine. See the Definitions Section of the Fee Schedule.

⁸ "Matching Engine" means a part of the MIAX Emerald electronic system that processes options orders and trades on a symbol-by-symbol basis. Some Matching Engines will process option classes with multiple root symbols, and other Matching Engines may be dedicated to one single option root symbol (for example, options on SPY may be processed by one single Matching Engine that is dedicated only to SPY). A particular root symbol may only be assigned to a single designated Matching Engine. A particular root symbol may not be assigned to multiple Matching Engines. See the Definitions Section of the Fee Schedule.

current flat monthly fee of \$100 to \$200 per port; (ii) the fifth and sixth additional Limited Service MEI Ports for engine matching engine will increase from the current flat monthly fee of \$100 to \$300 per port; and (iii) the seventh to the twelfth additional Limited Service MEI Ports will increase from the current monthly flat fee of \$100 to \$400 per port (collectively, the “Proposed Access Fees”).

2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act⁹ in general, and furthers the objectives of Section 6(b)(4) of the Act¹⁰ 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 Act¹¹ in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to 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

⁹ 15 U.S.C. 78f(b).

¹⁰ 15 U.S.C. 78f(b)(4).

¹¹ 15 U.S.C. 78f(b)(5).

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 to a tiered-pricing structure is reasonable, equitably allocated and not unfairly discriminatory because the Exchange believes the proposed structure would encourage firms to be more economical and efficient in the number of additional Limited Service MEI Ports 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 notes that the firms that are primarily order routers seeking best-execution do not utilize Limited Service MEI Ports on MIAX Emerald. Therefore, the fees described in the proposed tiered-pricing structure will only be allocated to market making firms that engage in advanced trading strategies and typically request multiple Limited Service MEI Ports. Accordingly, the firms engaged in market making business generate higher costs by utilizing more of the Exchange's resources. The market making firms that purchase higher amounts of Limited Service MEI Ports tend to have specific business oriented market making and taking strategies, as opposed to firms simply engaging in best-execution order routing business. The use of such additional Limited Service MEI Ports is entirely voluntary.

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 port fees 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 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 of 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 revenues associated with the Proposed Access Fees, the Exchange analyzed the number of Market Makers currently utilizing Limited

Service MEI Ports, 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 useful for analyzing the reasonableness of the total annual 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”).¹² On May 21, 2019, the Commission issued the Staff Guidance on SRO Rule Filings Relating to Fees.¹³ 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, LLC (“MIAX Pearl”) and Miami International Securities Exchange, LLC (“MIAX”), to establish or increase other non-transaction fees.¹⁴ Accordingly, the Exchange believes that the Commission should find that the Proposed Access Fees are consistent with the Act.

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As of July 31, 2021, the Exchange had a market share of only 4.15% of the U.S. equity options industry for the month of July 2021.¹⁵ The Exchange is not aware of any evidence that a

¹² 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).

¹³ 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”).

¹⁴ 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); 90980 (January 25, 2021), 86 FR 7602 (January 29, 2021) (SR-MIAX-2021-02) (proposal to increase connectivity fees).

¹⁵ See “The market at a glance,” available at <https://www.miaxoptions.com/> (last visited July 31, 2021).

market share of approximately 4-5% provides the Exchange with anti-competitive pricing power. If the Exchange were to attempt to establish unreasonable pricing, then no market participant would join or access the Exchange, and existing market participants would discontinue all or some of their access services.

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 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 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.¹⁶ Accordingly, these examples show that if an exchange sets

¹⁶ 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).

too high of a fee for ports and/or other non-transaction fees, including other access 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 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 System for market participants is not fixed. The Exchange believes the Proposed Access Fees are reasonable in order 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 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. For 2021¹⁷, the total annual expense for providing the access services associated with the Proposed Access Fees is projected to be approximately \$0.88 million. The approximately \$0.88 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 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.¹⁸ 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.¹⁹ The \$0.88 million in projected total annual expense is directly related

¹⁷ The Exchange has not yet finalized its 2021 year end results.

¹⁸ 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.

¹⁹ For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled “Operating Expenses Incurred Directly or Allocated From Parent,” in the Exchange’s 2019 Form 1 Amendment containing its financial statements for 2018. *See* Securities Exchange Act Release No. 87877 (December 31, 2019), 85 FR 738 (January 7, 2020) (SR-EMERALD-2019-39). Accordingly, the third-party expense described in this filing is attributed to the same line item for the Exchange’s 2021 Form 1 Amendment, which will be filed in 2022.

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 expense items 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.

For 2021, total third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services for the Exchange to be able to provide the access services associated with the Proposed Access Fees, is projected to be \$0.05 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 office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; (3) Secure Financial Transaction Infrastructure ("SFTI")²⁰, which supports connectivity and feeds for the entire U.S. options

²⁰ 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-

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 does not allocate its entire information technology and communication costs to the access services associated with the Proposed Access Fees.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange 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

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.

Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees, approximately 2.05% 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.

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking the Exchange with its affiliates, MIAX Pearl and MIAX, as well as the data center and disaster recovery locations. As such, all of the trade data, including the billions of messages each day per exchange, flow through Zayo's infrastructure over the Exchange's network. Without these services from Zayo, the Exchange would not be able to operate and support the network and provide the 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 1.64% 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.

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 2.05% 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.

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 1.23% 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.

For 2021, total projected internal expense, relating to the internal costs of the Exchange to provide the access services associated with the Proposed Access Fees, is projected to be

\$0.83 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, and business 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 does not allocate its 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 Proposed Access Fees. In particular, the Exchange's employee compensation and benefits expense relating to providing the access services associated with the Proposed Access Fees is projected to be approximately \$0.76 million, which is only a portion of the \$9.74 million total projected expense for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portion of such expense because this includes the time spent by employees of several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development (who create the business requirement

documents that the Technology staff use to develop network features and enhancements), and Trade Operations. As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by 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 7.81% 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.

The Exchange's depreciation and amortization expense relating to providing the services associated with the Proposed Access Fees is projected to be \$0.06 million, which is only a portion of the \$3.13 million total projected expense for depreciation and amortization. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the network and provide the 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 1.92% 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.

The Exchange's occupancy expense relating to providing the services associated with the Proposed Access Fees is projected to be \$0.01 million, which is only a portion of the \$0.52 million total projected expense for occupancy. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense represents the portion of the Exchange's cost to rent and maintain a physical location for the Exchange's staff who operate and support the network, including providing the 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 1.93% 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.

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 has only four primary sources of fees to recover their costs; thus, the Exchange believes 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 projects that annualized revenue for providing the access services associated with the Proposed Access Fees would be approximately \$2.07 million per annum, based on a recent billing cycle. The Exchange projects that its annualized expense for providing the services associated with the Proposed Access Fees will be approximately \$0.88 million per annum. Accordingly, on a fully-annualized basis, the Exchange believes its total projected revenue for providing the access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit, as the Exchange will make a profit margin of approximately 58% (\$2.07 million in total revenue minus \$.088 [sic] million in expense = \$1.19 million in profit per annum). Additionally, this profit margin does not take into account the cost of capital expenditures (“CapEx”) the Exchange projects 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 its affiliates. Stated differently, no expense amount of the Exchange is allocated twice. The Exchange notes that, with respect to expenses associated with the Exchange’s affiliates, MIAX Pearl and MIAX, those expenses 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 or MIAX.

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 all the expenses of the Exchange, and has determined the expenses that

directly relate to providing access to the Exchange. 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 costs of providing access to its 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 Exchange believes the proposed changes are reasonable, equitably allocated and not unfairly discriminatory, and do not result in a "supra-competitive"²¹ profit. Of note, the Guidance defines "supra-competitive profit" as profits that exceed the profits that can be obtained in a competitive market.²² With the proposed changes, the Exchange anticipates it will have a profit margin of approximately 58% based on the Proposed Access Fees. 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 profit margin is similar to or below the operating profit margins of other competing exchanges. For example, Nasdaq ISE, LLC's ("ISE") operating profit margin for all of 2020 was approximately 85%; Nasdaq PHLX LLC's

²¹ See supra note 13.

²² See id.

(“PHLX”) operating profit margin for all of 2020 was approximately 49%; Nasdaq’s operating profit margin for all of 2020 was approximately 62%; NYSE Arca, Inc.’s (“Arca”) operating profit margin for all of 2020 was approximately 55%; NYSE American LLC’s (“Amex”) operating profit margin for all of 2020 was approximately 59%; Cboe’s operating profit margin for all of 2020 was approximately 74%; and BZX’s operating profit margin for all of 2020 was approximately 52%.

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, 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. The Exchange notes that the concept of a tiered-pricing structure for ports is not new or novel.²³

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

²³ See Cboe BZX Exchange, Inc. (“BZX”) Options Fee Schedule, Options Logical Port Fees, Ports with Bulk Quoting Capabilities (charging \$1,500/month for the 1st and 2nd port, \$2,500/month for the 3rd port or more); Cboe Exchange, Inc. (“Cboe”) Fee Schedule, Logical Connectivity Fees (charging \$750/month per port for BOE/FIX Logical Ports 1 to 5 and \$800/month per port for BOE/FIX Logical Ports greater than 5; charging \$1,500/month per port for BOE Bulk Logical Ports 1 to 5, \$2,500/month per port for BOE Bulk Logical Ports 6 to 30, and \$3,000/month per port for BOE Bulk Logical Ports greater than 30); The Nasdaq Stock Market LLC (“Nasdaq”), Options 7, Pricing Schedule, Section 3 Nasdaq Options Market – Ports and Other Services (charging \$1,500/month per port for first 5 ports, \$1,000/month per port for the next 15 ports, and \$500/month per port for all ports over 20).

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 to a tiered-pricing structure is reasonable, equitably allocated and not unfairly discriminatory because the Exchange believes the proposed structure would encourage firms to be more economical and efficient in the number of Limited Service MEI Ports they purchase. The Exchange believes this will enable the Exchange to better monitor and provide access to the Exchange's network in order to ensure that the Exchange meets its obligations under the Act such that access to the Exchange is offered on terms that are not unfairly discriminatory, as well as to ensure sufficient capacity and headroom in the System.

There is also no regulatory requirement that any market participant access any one options exchange, that each Market Maker access the Exchange utilizing more than the two free Limited Service MEI Ports that the Exchange provides, access the Exchange in a particular capacity, or trade any particular product offered on the 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.²⁴ Indeed, the Exchange is unaware of any one options exchange whose membership includes every registered broker-dealer. Based on a recent analysis conducted by 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

²⁴ 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.

trading and were members of all 16 options exchanges.²⁵ Additionally, the Cboe Fee Filing found that several broker-dealers were 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.²⁶

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 the proposed pricing structure is associated with relative usage of the various market participants. Firms that are primarily order routers seeking best-execution do not utilize Limited Service MEI Ports on MIAX Emerald and therefore will not pay the fees associated with the tiered-pricing structure. Rather, the fees described in the proposed tiered-pricing structure will only be allocated to market making firms that engage in advanced trading strategies and typically request multiple Limited Service MEI Ports. Accordingly, the firms engaged in market making business generate higher costs by utilizing more of the Exchange's resources. The market making firms that purchase higher amounts of Limited Service MEI Ports tend to have specific business oriented market making and taking strategies, as opposed to firms simply engaging in best-execution order routing

²⁵ 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.

²⁶ Id.

business. Additionally, the use of such additional Limited Service MEI Ports is entirely voluntary.

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 access all options exchanges. The Exchange operates in a highly competitive environment, and as discussed above, its ability to price access and ports is constrained by competition among exchanges and third parties. There are other options markets of which market participants may access in order 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 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

Written comments were neither solicited nor received.

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

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(ii) of the Act,²⁷ and Rule 19b-4(f)(2)²⁸ 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-EMERALD-2021-25 on the subject line.

Paper Comments:

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

All submissions should refer to File Number SR-EMERALD-2021-25. This file number should be included on the subject line if e-mail is used. To help the Commission process and

²⁷ 15 U.S.C. 78s(b)(3)(A)(ii).

²⁸ 17 CFR 240.19b-4(f)(2).

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-EMERALD-2021-25 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.²⁹

J. Matthew DeLesDernier
Assistant Secretary

²⁹ 17 CFR 200.30-3(a)(12).