

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-90651; File No. SR-PEARL-2020-33)

December 11, 2020

Self-Regulatory Organizations; MIAX PEARL, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend the MIAX PEARL Equities Fee Schedule To Adopt Connectivity Fees, Port Fees, a Technical Support Request Fee, and Historical Market Data Fee

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),¹ and Rule 19b-4 thereunder,² notice is hereby given that on December 3, 2020, MIAX PEARL, LLC (“MIAX PEARL” or “Exchange”), filed with the Securities and Exchange Commission (“Commission”) a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

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

The Exchange is filing a proposal to amend the MIAX PEARL Equities Fee Schedule (the “Fee Schedule”) by adopting fees applicable to participants trading equity securities on and/or using services provided by MIAX PEARL Equities.³

The text of the proposed rule change is available on the Exchange’s website at <http://www.miaxoptions.com/rule-filings/pearl> at MIAX PEARL’s principal office, and at the Commission’s Public Reference Room.

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ See Exchange Rule 1901. The Exchange notes that it submitted a separate filing with the Commission pursuant to Section 19(b)(3)(A) of the Act to establish the Fee Schedule and adopt transaction fees. See Securities Exchange Act Release No. 90102 (October 6, 2020), 85 FR 64559 (October 13, 2020) (SR-PEARL-2020-17).

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

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set 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

On August 14, 2020, the Commission approved the Exchange’s proposal to adopt rules governing the trading of equity securities, referred to as MIA X PEARL Equities.⁴ The Exchange launched MIA X PEARL Equities on September 25, 2020. The Exchange proposes to adopt a Definitions section in the Fee Schedule as well as the following fees: (1) connectivity fees for Equity Members⁵ and non-Members; (2) Port fees (together with the proposed connectivity fees, the “Proposed Access Fees”); (3) a Technical Support Request fee; and (4) a fee for Historical Market Data (collectively, the “Proposed Fees”).

The Exchange initially filed the proposal on September 24, 2020.⁶ The Exchange withdrew the First Proposed Rule Change on October 5, 2020 and submitted SR-PEARL-2020-

⁴ See Securities Exchange Act Release No. 89563 (August 14, 2020), 85 FR 51510 (August 20, 2020) (SR-PEARL-2020-03) (Order Approving a Proposed Rule Change, as Modified by Amendment No. 1, To Establish Rules Governing the Trading of Equity Securities) (“Approval Order”).

⁵ The term “Equity Member” means a Member authorized by the Exchange to transact business on MIA X PEARL Equities. See Exchange Rule 1901.

⁶ The Exchange initially filed the proposed fee changes on September 24, 2020 (SR-PEARL-2020-18). See SR-PEARL-2020-18 (the “First Proposed Rule Change”).

19.⁷ The Second Proposed Rule Change was published for comment in the Federal Register on October 20, 2020⁸ and no comment letters were received. Nonetheless, the Exchange withdrew the Second Proposed Rule Change⁹ and now replaces it with this filing to provide further clarification regarding the Exchange’s cost analysis for the Proposed Fees.¹⁰

MIAX PEARL Equities, as a new entrant into the equity securities marketplace, has only begun generating revenue and has a very low market share. 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 members and markets. The Exchange believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange’s marketplace. The Exchange believes that it is important to demonstrate that these fees are based on its costs and reasonable business needs. Accordingly, the Exchange believes the Proposed Fees in general, and the Proposed Access Fees in particular, will allow the Exchange to offset a portion of the expenses the Exchange has and will incur and that the Exchange has provided sufficient transparency (as described below) into how the Exchange determined to charge such fees.

⁷ See Securities Exchange Act Release No. 90186 (October 14, 2020), 85 FR 66656 (October 20, 2020) (SR-PEARL-2020-19) (the “Second Proposed Rule Change”).

⁸ See id.

⁹ See letter from Chris Solgan, VP, Senior Counsel, the Exchange, dated November 20, 2020, notifying the Commission that the Exchange would withdraw SR-PEARL-2020-19.

¹⁰ In this filing, the Exchange also corrects an error in the earlier filings by replacing references to the term “Priority Purge Ports” with simply “Purge Ports.”

Definitions

The Exchange proposes to include a Definitions section at the beginning of the Fee Schedule, before the General Notes section. The purpose of the Definitions section is to provide market participants greater clarity and transparency regarding the applicability of fees and rebates by defining terms used within the Fee Schedule in a single location. The Exchange notes that other equities exchanges include Definitions sections in their respective fee schedules,¹¹ and the Exchange believes that including a Definitions section in the front of the Fee Schedule makes the Fee Schedule more user-friendly and makes the Fee Schedule more comprehensive.

Unless included in the Definition section, capitalized terms used in the Fee Schedule are defined in the MIAX PEARL Equities Rules. Each of the definitions proposed to be included in the Fee Schedule are based on definitions included in the existing MIAX PEARL fee schedule applicable to options (“Options Fee Schedule”)¹² or those of another exchange. In particular, the Exchange propose to offer and define ports and interfaces that provide connectivity to MIAX PEARL Equities. The Exchange notes that each of these offerings are not novel or unique, are available on other equity exchanges, and are currently offered by the Exchange for options trading and provided for in the Exchange’s Options Fee Schedule. The Exchange proposes to define the following terms in the Fee Schedule:

- “Cross-connect” occurs when the affected third-party system is sited at the same data center where MIAX PEARL Equities systems are sited, and the third-party connects to

¹¹ See Cboe BZX Exchange, Inc. Fee Schedule, Definitions section; Cboe BYX Exchange, Inc., Definitions section; Cboe EDGA Exchange, Inc., Definitions section; Cboe EDGX Exchange, Inc., Definitions section.

¹² See the Options Fee Schedule [available at https://www.miaxoptions.com/sites/default/files/fee_schedule-files/MIAX_PEARL_Fee_Schedule_11052020.pdf](https://www.miaxoptions.com/sites/default/files/fee_schedule-files/MIAX_PEARL_Fee_Schedule_11052020.pdf)

MIAX PEARL Equities through the data center, rather than connecting directly to MIAX PEARL Equities outside of the data center.

- “Exchange System Disruption” means an outage of a Matching Engine or collective Matching Engines for a period of two consecutive hours or more, during trading hours.
- “Extranet Provider” means a technology provider that connects with MIAX PEARL Equities systems and in turn provides such connectivity to MIAX PEARL Equities participants that do not connect directly with MIAX PEARL Equities.
- “FIX Order by Order” means a type of FXD Port that sends all order activities other than reject message, including Execution Reports and Trade Cancel/Correct messages. FIX Order by Order is currently offered by the Exchange for options trading and provided for in the Exchange’s Options Fee Schedule.
- “FIX Order Interface” or “FOI” means the Financial Information Exchange interface for certain order types as set forth in Exchange Rule 2614. FOI is currently offered by the Exchange for options trading and provided for in the Exchange’s Options Fee Schedule.
- “FIX Port” means a FIX port that allows Equity Members to send orders and other messages using the FIX protocol. FIX is currently offered by the Exchange for options trading and provided for in the Exchange’s Options Fee Schedule.
- “Full Service Port” or “FSP” means an MEO port that supports all MEO order input message types. FSP is currently offered by the Exchange for options trading and provided for in the Exchange’s Options Fee Schedule.
- “FIX Drop Port” or “FXD” means a messaging interface that provides real-time order activities of firms’ MEO and FOI orders. MIAX PEARL Equities offers two types of FXD ports: (1) Standard FIX Drop; and (2) FIX Order by Order Drop. FXD Ports may

be used by Equities Market Makers, Order Entry Firms and clearing firms. FXD is currently offered by the Exchange for options trading and provided for in the Exchange's Options Fee Schedule.

- “MENI” means the MIAX Express Network Interconnect, which is a network infrastructure which provides Equity Members and non-Members network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange. The MENI consists of the low latency and ultra-low latency (“ULL”) connectivity options set forth in the Exchange's Fee Schedule. MENI is currently offered by the Exchange for options trading and provided for in the Exchange's Options Fee Schedule.
- “MEO Interface” or “MEO” means a binary order interface for certain order types as set forth in Rule 516 into the MIAX PEARL System. See Exchange Rule 100.
- “Service Bureau” means a technology provider that offers and supplies technology and technology services to a trading firm that does not have its own proprietary system.
- “Standard FIX Drop” means an FXD Port that only sends trade information, including Execution Reports and Trade Cancel/Correct messages. Standard FIX Drop is currently offered by the Exchange for options trading and provided for in the Exchange's Options Fee Schedule.
- “Third Party Vendor” means a subscriber of MIAX PEARL Equities' market and other data feeds, which they in turn use for redistribution purposes.
- “Waiver Period” means, for each applicable fee, the period of time from the initial effective date of the MIAX PEARL Equities Fee Schedule until such time that MIAX PEARL has an effective fee filing establishing the applicable fee. MIAX PEARL

Equities will issue a Regulatory Circular announcing the establishment of an applicable fee that was subject to a Waiver Period at least fifteen (15) days prior to the termination of the Waiver Period and effective date of any such applicable fee.

Proposed Access Fees

To provide market participants with a better understanding of how the Exchange has established the levels of the Proposed Access Fees, the Exchange is providing information in this proposal regarding the costs incurred by the Exchange to provide services associated with the Proposed Access Fees, including the Exchange's cost allocation methodology (information that explains the Exchange's rationale for determining that it was reasonable to allocate certain expenses described in this filing towards the total cost to the Exchange to provide the services associated with the Proposed Access Fees). The Exchange is also providing an analysis of its expected revenues and profitability (following the proposed fee change) for the services associated with the Proposed Access Fees.

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

Since MIAX PEARL Equities did not exist in 2019 (operations only just launched on September 25, 2020), the Exchange's most recent publicly available financial statement (2019

Audited Unconsolidated Financial Statement) is not an accurate reflection of the total annual costs associated with the development and operation of MIAX PEARL Equities. Accordingly, the Exchange believes it is more appropriate to justify its fees using cost figures that are isolated specifically for MIAX PEARL Equities on an annualized basis, utilizing its 2020 actual (to date) and projected (for the remainder) costs, as described herein. The purpose of presenting it in this manner is to provide greater transparency into the Exchange's actual and expected revenues, costs, and profitability associated with providing the services associated with the Proposed Access Fees. Based on this analysis, the Exchange believes that the Proposed Access Fees are fair and reasonable because they will permit recovery of less than all of the Exchange's costs for providing the services associated with the Proposed Access Fees and 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.

Connectivity Fees

Specifically, proposed Sections 2a) and b) of the Fee Schedule describe network connectivity fees for the 1 Gigabit ("Gb") ultra-low latency ("ULL") fiber connection and the 10Gb ULL fiber connection, which are to be charged to both Equity Members and non-Members of MIAX PEARL Equities for connectivity to the Exchange's primary/secondary facility. The Exchange also proposes to adopt network connectivity fees for the 1Gb ULL and 10Gb ULL fiber connections for connectivity to the Exchange's disaster recovery facility.

The Exchange will offer to both Equity Members and non-Members various bandwidth alternatives for connectivity to MIAX PEARL Equities, to its primary and secondary facilities, which consists of a 1Gb ULL fiber connection and a 10Gb ULL fiber connection. The Exchange

also offers to both Equity Members and non-Members various bandwidth alternatives for connectivity to the disaster recovery facility of MIAX PEARL Equities, which consists of a 1Gb ULL fiber connection and a 10Gb ULL connection.

The Exchange proposes to establish the monthly network connectivity fees for such connections for both Equity Members and non-Members. The Exchange proposes to adopt the following fees for connectivity to MIAX PEARL Equities' primary/secondary facility for both Equity Members and non-Members: (a) \$1,000 for the 1Gb ULL connection; and (b) \$3,500 for the 10Gb ULL connection. The Exchange proposes to adopt the following fees for connectivity to MIAX PEARL Equities' disaster recovery facility for both Equity Members and non-Members: (a) \$1,000 for the 1Gb ULL connection; and (b) \$3,000 for the 10Gb ULL connection.

Monthly network connectivity fees for Equity Members and non-Members for connectivity with the primary/secondary facility will be assessed in any month the Equity Member or non-Members is credentialed to use any of the MIAX PEARL Equities Application Programming Interfaces ("APIs") or market data feeds in the production environment and will be pro-rated when an Equity 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 Equity Member or non-Member has been credentialed to utilize any of the MIAX PEARL Equities' 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. Monthly network connectivity fees for Equity Members and non-Members for connectivity to the Disaster Recovery Facility will be assessed in each month

during which the Equity Member or non-Member has established connectivity to the Disaster Recovery Facility.

Proposed Section 2)c) of the Fee Schedule, Pass-Through of External Connectivity Fees, provides for the pass through of external connectivity fees (described below) to Equity Members and non-Members that establish connections with MIAX PEARL Equities through a third-party. Fees assessed to MIAX PEARL Equities by third-party external vendors on behalf of an Equity Member or non-Member connecting to MIAX PEARL Equities (including cross-connects), will be passed through to the Equity Member or non-Member. The external connectivity fees passed through can include one-time set-up fees, monthly charges, and other fees charged to MIAX PEARL Equities by a third-party for the benefit of an Equity Member or non-Member.

Port Fees

Proposed Section 2)d), Port Fees, of the Fee Schedule describes fees for access and services used by Equity Members and non-Members. MIAX PEARL Equities provides three Port types: (i) the Financial Information Exchange Port (“FIX Port”), which allows Equity Members to send orders and other messages using the FIX protocol;¹³ (ii) the MIAX Express Orders Interface (“MEO Port”), which allows Equity Members order entry capabilities to all MIAX PEARL Equities Matching Engines¹⁴; and (iii) the FIX Drop Port (“FXD Port”), which provides real-time order activities firms’ MEO and FOI orders. MIAX PEARL Equities offers

¹³ “FIX Order Interface” or “FOI” means the Financial Information Exchange interface for certain order types as set forth in Exchange Rule 2614. See the Definitions section of the Fee Schedule.

¹⁴ Each MEO interface will have one Full Service Port (“FSP”) and one Purge Port. “Full Service Port” or “FSP” means an MEO port that supports all MEO order input message types. See the Definitions section of the Fee Schedule. Purge Ports are described in Exchange Rule 2618(a)(7)(b).

two types of FXD ports: (1) Standard FIX Drop¹⁵; and (2) FIX Order by Order.¹⁶ FXD Ports may be used by Equities Market Makers¹⁷, Order Entry Firms¹⁸ and clearing firms.

The Exchange proposes to assess monthly Port fees to Equity Members in each month the Equity Member is credentialed to use a Port in the production environment. MIAX PEARL Equities has primary and secondary data centers and a disaster recovery center. Each Port provides access to all Exchange data centers for a single fee. The Exchange notes that, unless otherwise specifically set forth in the Fee Schedule, the Port fees include the information communicated through the Port. That is, unless otherwise specifically set forth in the Fee Schedule, there is no additional charge for the information that is communicated through the Port apart from what the user is assessed for each Port. The Exchange proposes to assess Port Fees for FIX Ports, MEO Ports, and FXD Ports as set forth in the following table:

¹⁵ “Standard FIX Drop” means an FXD Port that only sends trade information, including Execution Reports and Trade Cancel/Correct messages. See the Definitions section of the Fee Schedule.

¹⁶ “FIX Order by Order” means a type of FXD Port that sends all order activities other than reject message, including Execution Reports and Trade Cancel/Correct messages. See the Definitions section of the Fee Schedule.

¹⁷ The term “Equities Market Maker” shall mean an Equity Member that acts as a Market Maker in equity securities, pursuant to Chapter XXVI. See Exchange Rule 1901.

¹⁸ The term “Equities Order Entry Firm”, “Order Entry Firm”, or “OEF”, shall mean those Equity Members representing orders as agent on MIAX PEARL Equities and those non-Equity Market Maker Members conducting proprietary trading. See Exchange Rule 1901.

Type of Port	<p align="center">Monthly Port Fees</p> <p align="center">Includes Connectivity to the Primary, Secondary and Disaster Recovery Data Centers</p>
FIX Port [^]	<p align="center">Per Port:</p> <p align="center">1st – 5th Fee Waived for the Waiver Period</p> <p align="center">6th – 10th Fee Waived for the Waiver Period</p> <p align="center">11th – 25th Fee Waived for the Waiver Period</p> <p align="center">26th – 50th \$450</p> <p align="center">51st – 75th \$400</p> <p align="center">76th – 100th \$350</p> <p align="center">101st or more \$300</p>
MEO Port ^{^*}	<p align="center">Per Port:</p> <p align="center">1st – 5th Fee Waived for the Waiver Period</p> <p align="center">6th – 10th Fee Waived for the Waiver Period</p> <p align="center">11th – 25th Fee Waived for the Waiver Period</p> <p align="center">26th – 50th \$450</p> <p align="center">51st – 75th \$400</p> <p align="center">76th – 100th \$350</p> <p align="center">101st or more \$300</p>
FXD Port [^]	<p align="center">Fee Waived for the Waiver Period</p>

[^] Each port will have access to all Matching Engines.

- * The rates set forth above for MEO Ports entitle an Equity Member to one (1) FSP and one (1) Purge Port¹⁹ for all Matching Engines for a single port fee.
- MEO and FIX Ports are counted separately for the tiers in the table.

The Exchange proposes to waive the fee for the 1st through the 25th FIX Ports and MEO Ports that Equity Members are credentialed to use, as well as the fees for all FXD Ports, for the Waiver Period.²⁰ For all Port fees that the Exchange initially proposes to be subject to the Waiver Period, the Exchange will submit a rule filing to the Commission to establish the fee amount and any related requirements, and provide notice to terminate the applicable Waiver Period. Even though most of the Port fees are waived during the Waiver Period, the Exchange believes that is appropriate to provide market participants with the overall structure of the fee by outlining the structure on the Fee Schedule without setting forth a specific fee amount in certain areas, so that there is general awareness that the Exchange intends to assess such a fee in the future, should the Waiver Period terminate and the Exchange establish an applicable fee.

Equity Member and Non-Member Technical Support Request Fee

Proposed Section 2)e), Member and Non-Member Technical Support Request Fee, of the Fee Schedule describes the technical support request fee to be charged to both Equity Members and non-Members that request technical support at any of the MIAX PEARL Equities data centers. MIAX PEARL Equities proposes to charge a fee of \$200 per hour for requested

¹⁹ Purge Ports are described in Exchange Rule 2618(a)(7)(b).

²⁰ “Waiver Period” means, for each applicable fee, the period of time from the initial effective date of the MIAX PEARL Equities Fee Schedule until such time that MIAX PEARL has an effective fee filing establishing the applicable fee. MIAX PEARL Equities will issue a Regulatory Circular announcing the establishment of an applicable fee that was subject to a Waiver Period at least fifteen (15) days prior to the termination of the Waiver Period and effective date of any such applicable fee. See the Definitions section of the Fee Schedule.

technical support. The Exchange intends to provide Equity Members and non-Members access to the Exchange's on-site data center personnel for technical support as a convenience to the Equity Members and non-Members to test or otherwise assess their connectivity to the Exchange. Currently, the Exchange charges the same fee amount for the same services for options trading, as well as at its affiliate option exchanges, Miami International Securities Exchange, LLC ("MIAX") and MIAX Emerald, LLC ("MIAX Emerald").²¹

Market Data Fees

Proposed Sections 3)a)-c) describe the fee to be charged for the Exchange's proprietary market data products. MIAX PEARL Equities intends to offer the following three proprietary market data products: (a) Top of Market ("ToM") feed; (b) Depth of Market ("DoM") feed; and (c) the Historical Market Data feed.

The ToM feed is a data feed that contains the price and aggregate size of displayed top of book quotations, order execution information, and administrative messages for orders entered on MIAX PEARL Equities. The DOM feed is a data feed that contains the displayed price and size of each order entered on MIAX PEARL Equities, as well as order execution information, order cancellations, order modifications, order identification numbers, and administrative messages.

The Exchange proposes to provide under Sections 3)a) and 3)b) of the Fee Schedule that the ToM and DoM would be offered free of charge during the Waiver Period. Even though the fees for the ToM and DoM data feeds are waived during the Waiver Period, the Exchange believes that is appropriate to provide market participants with notice of these feeds on the Fee

²¹ See MIAX Fee Schedule, Section 5)f), Member and non-Member Technical Support Request Fee; MIAX PEARL Fee Schedule, Section 5)f), Member and non-Member Technical Support Request Fee; and MIAX Emerald Fee Schedule, Section 5)f), Member and non-Member Technical Support Request Fee.

Schedule without setting forth a specific fee amount, so that there is general awareness that the Exchange intends to assess such a fee in the future, should the Waiver Period terminate and the Exchange establish an applicable fee.

The Exchange will also offer Historical Data for MIAX PEARL Equities, which is a data product that offers historical market data for orders entered on MIAX PEARL Equities upon request. The Exchange proposes to charge a modest fee for the Historical Data, which will be based on the cost incurred by the Exchange in providing that data. Proposed Section 3)c) of the Fee Schedule describes the fee to be charged market participants that request Historical Data from MIAX PEARL Equities. Historical Data is intended to aid market participants in analyzing trade and volume data, evaluating historical trends in the trading activity of a particular security, and enabling those market participants to test trading models and analytical strategies. Specifically, Historical Data includes all data that is captured and disseminated on ToM and DoM feeds and is available on a T+1 basis.²²

The Exchange will only assess the fee for Historical Data on a user (whether Equity Member or non-Member) that specifically requests such Historical Data. Historical Data will be uploaded onto an Exchange-provided device, which the Exchange will incur a cost to procure and provide to those that request the data.

The Exchange proposed to charge a flat fee of \$500 per device requested. Each device shall have a maximum storage capacity of 8 terabytes. Users may request up to six months of Historical Data per device, subject to the device's storage capacity. Historical Data will be made available beginning from the time of launch of MIAX PEARL Equities on September 25, 2020 (always on a T+1 basis). However, only the most recent six months of Historical Data shall be

²² See Fee Schedule, Section 3)c).

available for purchase from the request date.

2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act²³ in general, and furthers the objectives of Section 6(b)(4) of the Act²⁴ 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 Act²⁵ 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 customer, issuers, brokers and dealers.

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”).²⁶ On May 21, 2019, the Commission issued the Staff Guidance on SRO Rule Filings Relating to Fees.²⁷

The Exchange believes that the Proposed Fees are consistent with the Act because they

²³ 15 U.S.C. 78f(b).

²⁴ 15 U.S.C. 78f(b)(4).

²⁵ 15 U.S.C. 78f(b)(5).

²⁶ 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).

²⁷ 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”).

(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 data and analysis), constrained by significant competitive forces; and (iv) are supported by specific information (including quantitative information), fair and reasonable because they will permit recovery of the Exchange's costs (less than all) and will not result in excessive pricing or supra-competitive profit. Accordingly, the Exchange believes that the Commission should find that the Proposed Fees are consistent with the Act.

MIAX PEARL Equities launched trading on September 25, 2020. As of November 2020, MIAX PEARL Equities averaged only 0.05% daily market share of the U.S. equities market.²⁸ The Exchange is not aware of any evidence that a market share of approximately 0.05% 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 connect, and existing market participants would disconnect.

Separately, the Exchange is not aware of any reason why market participants could not simply drop their connections to an exchange (or not connect to 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 connect to such exchange. No market participant is required by rule, regulation, or competitive forces to be a Member of the Exchange or MIAX PEARL Equities. As evidence of the fact that market participants can and do disconnect from exchanges based on non-transaction fee pricing, R2G Services LLC ("R2G") filed a comment letter after BOX's proposed rule changes to increase its

²⁸ See U.S. Equities Market Volume Summary [available at https://markets.cboe.com/us/equities/market_statistics/](https://markets.cboe.com/us/equities/market_statistics/) (last visited November 30, 2020).

connectivity fees (SR-BOX-2018-24, SR-BOX-2018-37, and SR-BOX-2019-04).²⁹ 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.”³⁰ Accordingly, this example shows that if an exchange sets too high of a fee for connectivity and/or other non-transaction fees for its relevant marketplace, market participants can choose to disconnect from such exchange.

The Exchange believes its proposal to include a Definitions section in the Fee Schedule promotes just and equitable principles of trade, removes impediments to and perfects the mechanism of a free and open market and a national market system, and, in general protects investors and the public interest and is not designed to permit unfair discrimination between customers, issuers, brokers and dealers. The Exchange believes that the proposal to adopt a Definitions section in the beginning of the Fee Schedule will provide greater clarity to Equity Members, non-Members, market participants and the public regarding the Exchange’s fees and rebates, and it is in the public interest for the Fee Schedule to be transparent, comprehensive and user-friendly so as to eliminate the potential for confusion.

The Exchange believes that its proposal is consistent with Section 6(b)(4) of the Act, in that the Proposed Fees are fair, equitable and not unreasonably discriminatory, because the fees, as proposed, are constrained by significant competitive forces. The U.S. equity securities markets are highly competitive (there are currently 16 equity markets) and a reliance on competitive markets is an appropriate means to ensure equitable and reasonable prices.

²⁹ See Letter from Stefano Durdic, R2G, to Vanessa Countryman, Acting Secretary, Commission, dated March 27, 2019 (the “R2G Letter”).

³⁰ See *id.*

The Exchange believes that its proposal is consistent with Section 6(b)(4) of the Act because the Proposed Access Fees will permit recovery (less than all) of the Exchange's costs and will not result in excessive or supra-competitive profit. The Proposed Access Fees will allow the Exchange to recover a portion (less than all) of the costs incurred by the Exchange associated with providing and maintaining the necessary hardware and other infrastructure as well as network monitoring and support services in order to provide the services associated with the Proposed Access Fees. The Exchange believes that it is reasonable and appropriate to establish its fees charged for the services associated with the Proposed Access Fees at levels that will partially offset the costs to the Exchange associated with maintaining and enhancing a state-of-the-art exchange network infrastructure in the U.S. equities industry.

The costs associated with building out and maintaining a state-of-the-art network infrastructure are extensive. This is due to several factors, including costs associated with maintaining and expanding a team of highly-skilled network engineers, fees charged by the Exchange's third-party data center operator, costs associated with projects and initiatives designed to improve overall network performance and stability through the Exchange's research and development ("R&D") efforts, and costs associated with fully-supporting advances in infrastructure and expansion of network level services, including customer monitoring, alerting and reporting. The Exchange incurs significant 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 number of connections and ports increase. For example, new 1Gb ULL and 10Gb ULL connections require the purchase of additional hardware to support

those connections as well as enhanced monitoring and reporting of customer performance that the Exchange and its affiliates provide. Further, 10Gb ULL connections require the purchase of specialized, more costly hardware. As the total number of all connections increase, the Exchange needs to increase its data center footprint and consume more power, resulting in increased costs charged by its third-party data center providers. Accordingly, the cost to the Exchange to provide access to its network and trading infrastructure is not entirely fixed.

Further, because the costs of operating a data center are significant and not economically feasible for the Exchange, the Exchange does not operate its own data centers, and instead contracts with a third-party data center provider. The Exchange notes that larger, well-established exchange operators own/operate their data centers, which offers them greater control over their data center costs. Because those exchanges own and operate their data centers as profit centers, the Exchange is subject to additional costs. Fees for the services associated with the Proposed Access Fees, which are charged for accessing the Exchange's data center network infrastructure, are directly related to the network and offset such costs.

Further, the Exchange invests significant resources in network R&D to continuously improve the overall performance and stability of its network. For example, the Exchange has a number of network monitoring tools (some of which were developed in-house, and some of which are licensed from third-parties), that continually monitor, detect, and report network performance, many of which serve as significant value-adds to Equity Members and enable the Exchange to provide a high level of customer service. These tools detect and report performance issues, and thus enable the Exchange to proactively notify an Equity Member (and the SIPs) when the Exchange detects a problem with an Equity Member's connectivity. In fact, the Exchange's affiliate options exchanges, MIAX and MIAX Emerald, often receive inquiries

from other industry participants regarding the status of networking issues outside of the Exchange's own network environment that are impacting the industry as a whole via the SIPs, including inquiries from regulators, because the Exchange has a superior, state-of-the-art network that, through its enhanced monitoring and reporting solutions, often detects and identifies industry-wide networking issues ahead of the SIPs. The Exchange also incurs costs associated with the maintenance and improvement of existing tools and the development of new tools.

Also, routine R&D projects to improve the performance of the network's hardware infrastructure result in additional cost. In sum, the costs associated with maintaining and enhancing a state-of-the-art exchange network in the U.S. equity securities industry is a significant expense for the Exchange that is projected to increase year-over-year, and thus the Exchange believes that it is reasonable to offset a portion of those costs through establishing the Proposed Access Fees, which are designed to recover those costs, as described herein. Overall, the Proposed Access Fees are projected to offset only a portion of the Exchange's services associated with the Proposed Access Fees. The Exchange invests in and offers a superior network infrastructure as part of its overall exchange services offering, resulting in significant costs associated with maintaining this network infrastructure, which are directly tied to the amount of the Proposed Access Fees that must be charged to access it, in order to recover those costs. The Exchange only has four primary sources of revenue: transaction fees, access fees (of which the Proposed Access Fees constitute the majority), 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 of MIAX PEARL Equities for providing the services associated with the Proposed Access Fees versus the total projected annual revenue of the Exchange for providing those services. For 2020, the total annual expense³¹ for providing the services associated with the Proposed Access Fees for MIAX PEARL Equities is projected to be approximately \$8.4 million. The \$8.4 million in projected total annual expense is comprised of the following, all of which are directly related to the services associated with the Proposed Access Fees by MIAX PEARL Equities to its Equity Members and non-Members: (1) third-party expense, relating to fees paid by MIAX PEARL Equities to third-parties for certain products and services; and (2) internal expense, relating to the internal costs of MIAX PEARL Equities to provide the services associated with the Proposed Access Fees. The \$8.4 million in projected total annual expense is directly related to the 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 review in which the Exchange analyzed every expense item in the Exchange's general expense ledger (this includes over 150 separate and distinct expense items) to determine whether each such expense relates to the services associated with the Proposed 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

³¹ The Exchange notes that the total expense figures for each of the external and internal expenses described herein relate only to the Exchange's equities market. No expense relating to the Exchange's options market is included in this filing.

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

For 2020, total actual and projected third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services for the Exchange to be able to provide the services associated with the Proposed Access Fees, was \$1,492,112. 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 MIAX PEARL Equities trading system infrastructure; (2) Zayo Group Holdings, Inc. (“Zayo”) for connectivity services (fiber and bandwidth connectivity) linking MIAX PEARL Equities’ office locations in Princeton, New Jersey and Miami, Florida to all data center locations; (3) Secure Financial Transaction Infrastructure (“SFTI”), which supports connectivity and feeds for the entire equity securities industry; (4) various other services providers (including Thompson Reuters, NYSE, Nasdaq, Internap, and Options IT), which provide content, connectivity services, infrastructure services, and market data services; and (5) various other hardware and software providers (including Dell and Cisco, which support the production environment).

For clarity, only a portion of all fees paid to such third-parties is included in the third-party expense herein (only the portions that actually support the services associated with the Proposed Access Fees), and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the services associated with the Proposed Access Fees.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange to operate and support the network, including providing the services associated with the Proposed Access Fees. In particular, the Exchange

believes it is reasonable to allocate the identified portions of the Equinix expense because Equinix operates the data centers (primary, secondary, and disaster recovery) that host the Exchange's network infrastructure, which enables the services associated with the Proposed Access Fees. 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 services associated with the Proposed Access Fees to Equity Members and non-Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to operating and supporting the network, approximately 73% of the total Equinix expense (68% allocated towards the cost of providing the provision of network connectivity and 5% allocated towards the cost of providing ports). The Exchange believes these allocations are reasonable because they represent the Exchange's actual cost to operate and support the network, and not any other service, as supported by its cost review.

The Exchange believes it is reasonable to allocate the identified portions of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking MIAX PEARL Equities with the Exchange's affiliates, MIAX and MIAX Emerald, as well as the data center and disaster recovery locations. As such, all of the trade data 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 services associated with the Proposed Access Fees to Equity Members and non-Members and

their customers. The Exchange did not allocate all of the Zayo expense toward the cost of providing the services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to operating and supporting the network, approximately 66% of the total Zayo expense (62% allocated towards the cost of providing the provision of network connectivity and 4% allocated towards the cost of providing ports). The Exchange believes these allocations are reasonable because they represent the Exchange's actual cost to operate and support the network, 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, Internap, and Options IT) expense because those entities provide connectivity and feeds for the entire U.S. securities industry as well as the content, connectivity services, infrastructure services, and market data 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 the services associated with the Proposed Access Fees to Equity Members and non-Members and their customers. The Exchange did not allocate all of the SFTI and other service providers' expense toward the cost of providing the services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to operating and supporting the network, approximately 94% of the total SFTI and other service providers' expense (89% allocated towards the cost of providing the provision of network connectivity and 5% allocated towards the cost of providing ports). The Exchange believes these allocations are reasonable because they represent the Exchange's

actual cost to operate and support the network, and not any other service, as supported by its cost review.

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 the services associated with the Proposed Access Fees to Equity Members and non-Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to operating and supporting the network, approximately 57% of the total hardware and software provider expense (54% allocated towards the cost of providing the provision of network connectivity and 3% allocated towards the cost of providing ports). The Exchange believes these allocations are reasonable because they represent the Exchange's actual cost to operate and support the network, and not any other service, as supported by its cost review.

For 2020, total projected internal expense, relating to the internal costs of the Exchange to provide the services associated with the Proposed Access Fees, is projected to be \$6,905,858. This includes, but is not limited to, costs associated with: (1) employee compensation and benefits for full-time employees that support the services associated with the Proposed Access Fees, including staff in network operations, trading operations, development, system operations, business, etc., as well as staff in general corporate departments (such as legal, regulatory, and finance) that support those employees and functions; (2) depreciation and

amortization of hardware and software used to provide the services associated with the Proposed Access Fees, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support those services for trading; and (3) occupancy costs for leased office space for staff that support the 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 (only the portions that support the services associated with the Proposed Access Fees), and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire costs contained in those line items to the 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 operate and support the network, including providing the services associated with the Proposed Access Fees. In particular, MIAX PEARL Equities' employee compensation and benefits expense relating to providing the services associated with the Proposed Access Fees is projected to be \$4,317,667, which is only a portion of the \$13,492,708 total projected expense for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portions of each expense because they include 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 operation and support of the network, including the services associated with the Proposed Access Fees. Without these employees, the Exchange would not be able to operate and support the network and provide the services associated with the Proposed Access Fees to Equity Members and non-Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of providing the services associated with the Proposed Access Fees, only that portion which the Exchange identified as being specifically mapped to operating and supporting the network, approximately 32% of the total employee compensation and benefits expense (29% allocated towards the cost of providing the provision of network connectivity and 3% allocated towards the cost of providing ports). The Exchange believes these allocations are reasonable because they represent the Exchange's actual cost to operate and support the network, and not any other service, as supported by its cost review.

MIAX PEARL Equities' depreciation and amortization expense relating to providing the services associated with the Proposed Access Fees is projected to be \$2,131,411, which is only a portion of the \$2,664,264 total projected expense for depreciation and amortization. The Exchange believes it is reasonable to allocate the identified portions of such projected expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the network. Without this equipment, the Exchange would not be able to operate the network and provide the services associated with the Proposed Access Fees to Equity

Members and non-Members and their customers. The Exchange did not allocate all of the projected depreciation and amortization expense toward the cost of providing the services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to operating and supporting the network, approximately 80% of the total depreciation and amortization expense (76% allocated towards the cost of providing the provision of network connectivity and 4% allocated towards the cost of providing ports). The services associated with the Proposed Access Fees would not be possible without relying on such equipment. The Exchange believes these allocations are reasonable because they represent the Exchange's actual cost to operate and support the network, and not any other service, as supported by its cost review.

MIAX PEARL Equities' occupancy expense relating to providing the services associated with the Proposed Access Fees is projected to be \$456,780, which is only a portion of the \$878,423 total projected expense for occupancy. The Exchange believes it is reasonable to allocate the identified portions of such projected 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 services associated with the Proposed Access Fees. These amounts consist primarily of rent for the Exchange's Princeton, New Jersey office, as well as various related costs, such as physical security, property management fees, property taxes, and utilities. The Exchange operates its Network Operations Center ("NOC") and Security Operations Center ("SOC") from its Princeton, New Jersey office location. A centralized office space is required to house the staff that operates and supports the network. The Exchange currently has approximately 150 employees (and continues to increase its headcount to support the network as the Exchange, and its affiliates, grow the network).

Approximately two-thirds of the Exchange's staff are in the Technology department, and the majority of those staff members have some role in the operation and performance of the network. Without this office space, the Exchange would not be able to operate and support the network and provide the services associated with the Proposed Access Fees to Equity Members and non-Members and their customers. Accordingly, the Exchange believes it is reasonable to allocate the identified portions of its occupancy expense because such amounts represent the Exchange's actual cost to house the equipment and personnel who operate and support the Exchange's network infrastructure for the services associated with the Proposed Access Fees. The Exchange did not allocate all of the projected occupancy expense toward the cost of providing the services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to operating and supporting the network, approximately 52% of the total occupancy expense (48% allocated towards the cost of providing the provision of network connectivity and 4% allocated towards the cost of providing ports). The Exchange believes these allocations are reasonable because they represent the Exchange's actual cost to operate and support the network, and not any other service, as supported by its cost review.

The Exchange's monthly revenue for the Proposed Access Fees is based on the following purchases by Equity Members and non-Members during the most recent billing cycle: (i) 12 1Gb ULL connections; (ii) 81 10Gb ULL connections; and (iii) 103 MEO Ports. The monthly revenue from Port fees is subject to change from month to month depending on the number of Ports purchased. Accordingly, the Exchange's total monthly Port revenue was \$22,800 and total 1 Gb and 10Gb ULL connectivity was \$288,000.

Accordingly, based on the facts and circumstances presented, the Exchange believes that its provision of the services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit. To illustrate, the Exchange's monthly revenue associated with the Proposed Access Fees was approximately \$310,800 for its most recent billing cycle ($\$22,800 + 288,000 = \$310,800$). Total projected revenue associated with the Proposed Access Fees for the remaining one month of 2020 is approximately \$300,000. Therefore, total revenue for the Exchange's most recent billing cycle for the provision of services associated with the Proposed Access Fees is \$310,800. Total projected expense for the Exchange for the provision of services associated with the Proposed Access Fees is approximately \$700,000. Accordingly, the provision of the services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit (rather, it will result in a monthly loss of \$389,200 for its most recent billing cycle).

On a going-forward, fully-annualized basis, the Exchange projects that its annualized revenue for providing the services associated with the Proposed Access Fees would be approximately \$3,600,000 per annum, based on a most recently completed billing cycle. The Exchange projects that its annualized expense for providing the services associated with the Proposed Access Fees would be approximately \$8,400,000 per annum. Accordingly, on a fully-annualized basis, the Exchange believes its total projected revenue for the providing the services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit, as the Exchange will incur a loss of \$4,800,000 on the Proposed Access Fees ($\$3.6 \text{ million} - \$8.4 \text{ million} = (\$4.8 \text{ million per annum})$).

For the avoidance of doubt, none of the expenses included herein relating to the services associated with the Proposed Access Fees relate to any other services offered by MIAX PEARL Equities. Stated differently, no expense amount of the Exchange is allocated twice.

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 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 operation and support of the network, including the services associated with the Proposed Access Fees. Further, the Exchange notes that, without the specific third-party and internal items listed above, the Exchange would not be able to operate and support the network, including the services associated with the Proposed Access Fees to Equity Members and non-Members and their customers. Each of these expense items, including physical hardware, software, employee compensation and benefits, occupancy costs, and the depreciation and amortization of equipment, have been identified through a line-by-line item analysis to be integral to the operation and support of the network. The Proposed Access Fees are intended to recover the Exchange's costs (less than all) of operating and supporting the network, including providing the services associated with the Proposed Access Fees.

Accordingly, the Proposed Access Fees are fair and reasonable because they do not result in excessive pricing or supra-competitive profit, when comparing the actual network operation and support costs to the Exchange versus the projected revenue for the services associated with the Proposed Access Fees.

The Exchange notes that other equities exchanges have similar connectivity alternatives for their participants, including similar low-latency connectivity. For example, the Nasdaq Stock Market LLC (“Nasdaq”), Nasdaq PHLX LLC (“Phlx”), and Nasdaq ISE, LLC (“ISE”) all offer a 1Gb, 10Gb and 10Gb low latency ethernet connectivity alternatives to each of their participants.³² NYSE Arca, Inc. (“NYSE Arca”), NYSE American LLC (“NYSE American”), NYSE Chicago, Inc. (“NYSE Chicago”) and NYSE National, Inc. (“NYSE National”) all offer a 1Gb and 10Gb low latency ethernet connectivity alternatives to each of their participants.³³ The Exchange notes that all the other equities exchanges described above charge higher rates for such similar connectivity to primary and secondary facilities. While the Exchange’s proposed connectivity fees are substantially lower than the fees charged by Nasdaq, Phlx, ISE, NYSE America, NYSE Arca, NYSE Chicago and NYSE National, the Exchange believes that it can offer significant value to Equity Members over other exchanges in terms of network monitoring and reporting, which the Exchange believes is a competitive advantage, and differentiates its access services versus access services at other exchanges. Additionally, the Exchange’s proposed connectivity fees to its disaster recovery facility are within the range of the fees charged by other exchanges for similar connectivity alternatives.³⁴ The Exchange also

³² See Nasdaq, Phlx and ISE General Rules, General 8, Section 1(b). Nasdaq, Phlx and ISE each charge a monthly fee of \$2,500 for each 1Gb connection, \$10,000 for each 10Gb connection and \$15,000 for each 10Gb Ultra connection, which is the equivalent of the Exchange’s 10Gb ULL connection.

³³ See NYSE American Fee Schedule, NYSE Arca Fee Schedule, NYSE Chicago Fee Schedule and NYSE National Fee Schedule, Co-Location Fees. NYSE American, NYSE Arca, NYSE Chicago and NYSE National each charge a monthly fee of \$5,000 for each 1Gb circuit and \$22,000 for each 10Gb LX circuit, which is the equivalent of the Exchange’s 10Gb ULL connection.

³⁴ See Cboe EDGA Exchange, Inc. (“EDGA”) and Cboe EDGX Exchange, Inc. (“EDGX”) Fee Schedules, Physical Connectivity Fees, (charging a monthly fee of \$2,000 for a 1Gb

notes that other equities exchanges have similar port alternatives for their participants, with similar or substantially higher fees.³⁵

Historical Data

The Exchange believes the proposed fee for Historical Data is a reasonable allocation of its costs and expenses among its Equity Members and other persons using its facilities since it is recovering the costs associated with distributing such data should an Equity Member request Historical Data. Access to the Exchange is provided on fair and non-discriminatory terms. The Exchange believes the proposed fee for Historical Data is equitable and not unfairly discriminatory because the fee level results in a reasonable and equitable allocation of fees amongst users for similar services. Moreover, the decision as to whether or not to purchase Historical Data is entirely optional to all users. Potential purchasers are not required to purchase the Historical Data, and the Exchange is not required to make the Historical Data available. Purchasers may request the data at any time or may decline to purchase such data. The allocation of fees among users is fair and reasonable because, if the market deems the proposed fees to be unfair or inequitable, firms can diminish or discontinue their use of this data.

The Exchange believes that the proposed fee for Historical Data is consistent with Section 6(b)(4) of the Act because the Proposed Access Fees will permit recovery of the Exchange's costs and will not result in excessive or supra-competitive profit. The proposed fee for Historical Data will allow the Exchange to recover a portion (less than all) of the costs

disaster recovery network access port and a monthly fee of \$6,000 for a 10Gb disaster recovery network access port).

³⁵ See Nasdaq Fee Schedule, Equity Rules, Equity 7, Pricing Schedule, Ports (charging \$575 per FIX port per month); Phlx Fee Schedule, Equity Rules, Equity 7, Pricing Schedule, Section 3 Nasdaq PSX Fees (charging \$400 per FIX port per month); EDGX Fee Schedule, Logical Port Fees (charging \$550 per Logical Port per month and \$650 per Purge port per month).

incurred by the Exchange associated with providing and maintaining the necessary hardware and other infrastructure as well as network monitoring and support services in order to provide Historical Data. The Exchange believes that it is reasonable and appropriate to establish a fee for Historical Data at a level that will partially offset the costs to the Exchange associated with maintaining and providing Historical Data. For example, Historical Market Data is uploaded onto an Exchange-provided device. Each device shall have a maximum storage capacity of 8 terabytes. The Exchange incurs costs in providing the device, storing the historical data, and utilizing resources to upload the data onto the device. Specifically, the device provided by the Exchange costs approximately \$200 to \$300. Moreover, the Exchange tracks the number of hours spent by Exchange personnel procuring Historical Data. Based on the Exchange's average cost per full-time employee ("FTE"), the Exchange represents that its cost to provide this service is reasonably related to (and often exceeds) the amount of the Historical Data fee the Exchange proposes to charge. Accordingly, the proposed fee would enable the Exchange to recover a material portion of such cost.

The Exchange also notes that its proposed fee is identical to that it charges today for options historical data and less than that charged by other exchanges for their own historical data. For example, all four of the Cboe equity exchanges charge a fee of \$500 for one month of historical data and \$2,500 for one terabyte drive of data.³⁶

Further, in adopting Regulation NMS, the Commission granted self-regulatory organizations and broker-dealers increased authority and flexibility to offer new and unique market data to the public. It was believed that this authority would expand the amount of data

³⁶ See, e.g., Cboe BZX Exchange, Inc. fee schedule available at https://markets.cboe.com/us/equities/membership/fee_schedule/bzx/.

available to consumers, and also spur innovation and competition for the provision of market data:

“[E]fficiency is promoted when broker-dealers who do not need the data beyond the prices, sizes, market center identifications of the NBBO and consolidated last sale information are not required to receive (and pay for) such data when broker-dealers may choose to receive (and pay for) additional market data based on their own internal analysis of the need for such data.”³⁷

By removing “unnecessary regulatory restrictions” on the ability of exchanges to sell their own data, Regulation NMS advanced the goals of the Act and the principles reflected in its legislative history. If the free market should determine whether proprietary data is sold to broker-dealers at all, it follows that the price at which such data is sold should be set by the market as well.

In July, 2010, Congress adopted H.R. 4173, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (“Dodd-Frank Act”), which amended Section 19 of the Act. Among other things, Section 916 of the Dodd-Frank Act amended paragraph (A) of Section 19(b)(3) of the Act by inserting the phrase “on any person, whether or not the person is a member of the self-regulatory organization” after “due, fee or other charge imposed by the self-regulatory organization.” As a result, all SRO rule proposals establishing or changing dues, fees or other charges are immediately effective upon filing regardless of whether such dues, fees or other charges are imposed on members of the SRO, non-members, or both. Section 916 further amended paragraph (C) of Section 19(b)(3) of the Act to read, in pertinent part, “At any time

³⁷ See Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496 (June 29, 2005).

within the 60-day period beginning on the date of filing of such a proposed rule change in accordance with the provisions of paragraph (1) [of Section 19(b)], the Commission summarily may temporarily suspend the change in the rules of the self-regulatory organization made thereby, 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 this title. If the Commission takes such action, the Commission shall institute proceedings under paragraph (2)(B) [of Section 19(b)] to determine whether the proposed rule should be approved or disapproved.”

The Exchange believes that these amendments to Section 19 of the Act reflect Congress’s intent to allow the Commission to rely upon the forces of competition to ensure that fees for market data are reasonable and equitably allocated. Although Section 19(b) had formerly authorized immediate effectiveness for a “due, fee or other charge imposed by the self-regulatory organization,” the Commission adopted a policy and subsequently a rule stating that fees for data and other products available to persons that are not members of the self-regulatory organization must be approved by the Commission after first being published for comment. At the time, the Commission supported the adoption of the policy and the rule by pointing out that unlike members, whose representation in self-regulatory organization governance was mandated by the Act, non-members should be given the opportunity to comment on fees before being required to pay them, and that the Commission should specifically approve all such fees. The Exchange believes that the amendment to Section 19 reflects Congress’s conclusion that the evolution of self-regulatory organization governance and competitive market structure have rendered the Commission’s prior policy on non-member fees obsolete. Specifically, many exchanges have evolved from member-owned, not-for-profit corporations into for-profit, investor-owned

corporations (or subsidiaries of investor-owned corporations). Accordingly, exchanges no longer have narrow incentives to manage their affairs for the exclusive benefit of their members, but rather have incentives to maximize the appeal of their products to all customers, whether members or non-members, so as to broaden distribution and grow revenues. Moreover, the Exchange believes that the change also reflects an endorsement of the Commission's determinations that reliance on competitive markets is an appropriate means to ensure equitable and reasonable prices. Simply put, the change reflects a presumption that all fee changes should be permitted to take effect immediately, since the level of all fees are constrained by competitive forces.

Selling proprietary market data, such as Historical Data, is a means by which exchanges compete to attract business. To the extent that exchanges are successful in such competition, they earn trading revenues and also enhance the value of their data products by increasing the amount of data they provide. The need to compete for business places substantial pressure upon exchanges to keep their fees for both executions and data reasonable.³⁸ The Exchange therefore believes that the fees for Historical Data are properly assessed on Members and Non-Member users.

The decision of the United States Court of Appeals for the District of Columbia Circuit in NetCoalition v. SEC, No. 09-1042 (D.C. Cir. 2010), although reviewing a Commission decision made prior to the effective date of the Dodd-Frank Act, upheld the Commission's reliance upon competitive markets to set reasonable and equitably allocated fees for market data:

³⁸ See Sec. Indus. Fin. Mkts. Ass'n (SIFMA), Initial Decision Release No. 1015, 2016 SEC LEXIS 2278 (ALJ June 1, 2016) (finding the existence of vigorous competition with respect to non-core market data).

“In fact, the legislative history indicates that the Congress intended that the market system ‘evolve through the interplay of competitive forces as unnecessary regulatory restrictions are removed’ and that the SEC wield its regulatory power ‘in those situations where competition may not be sufficient,’ such as in the creation of a ‘consolidated transactional reporting system.’”³⁹

The court’s conclusions about Congressional intent are therefore reinforced by the Dodd-Frank Act amendments, which create a presumption that exchange fees, including market data fees, may take effect immediately, without prior Commission approval, and that the Commission should take action to suspend a fee change and institute a proceeding to determine whether the fee change should be approved or disapproved only where the Commission has concerns that the change may not be consistent with the Act.

Pass-Through of External Connectivity Fees

The Exchange believes that the proposed pass-through of external connectivity fees constitutes an equitable allocation of fees, and is not unfairly discriminatory, because it allows the Exchange to recover costs associated with offering access through the network connections, responding to customer requests, configuring MIAX PEARL Equities’ systems, programming API user specifications and administering the various services. Access to the MIAX PEARL Equities market is offered on fair and non-discriminatory terms.

The Exchange believes it is reasonable, equitable and not unfairly discriminatory to pass-through External Connectivity fees to Equity Members and non-Members that establish connections with MIAX PEARL Equities through a third-party. MIAX PEARL Equities will

³⁹ NetCoalition, at 15 (quoting H.R. Rep. No. 94–229, at 92 (1975), as reprinted in 1975 U.S.C.C.A.N. 321, 323).

only pass-through the actual costs it is charged by third-party external vendors. The Exchange believes it is reasonable and equitable to recover costs charged it on behalf of an Equity Member or non-Member that establishes connections with MIAX PEARL Equities through a third party. Other exchanges, including EDGX and EDGA, charge a fee for similar services to their members and non-members.

Technical Support Request Fee

The Exchange believes that the proposed Technical Support Request fee is fair, equitable and not unreasonably discriminatory, because it is assessed equally to all Equity Members and non-Members who request technical support. Furthermore, Equity Members and non-Members are not required to use the service but instead it is offered as a convenience to all Equity Members and non-Members. The proposed fee is reasonably designed because it will permit both Equity Members and non-Members to request the use of the Exchange's on-site data center personnel as technical support and as a convenience in order to test or otherwise assess their connectivity to the Exchange and the fee is within the range of the fee charged by other exchanges for similar services and is identical to the same fee assessed by the Exchange today for options as well as the Exchange's affiliates, MIAX and MIAX Emerald.

Further, The Exchange tracks the number of hours spent by Exchange personnel providing the aforementioned services. Based on the Exchange's average cost per FTE, the Exchange represents that its cost to provide this service is reasonably related to (and often exceeds) the amount of the proposed fee. Accordingly, the proposed fee would enable the Exchange to recover a material portion of such cost.

* * * * *

Finally, the Exchange notes that it operates in a highly competitive market in which market participants can readily favor competing venues. In such an environment, the Exchange must establish fees that are competitive with other exchanges. For the reasons described above, the Exchange believes that the proposed fees in the MIAX PEARL Equities Fee Schedule appropriately reflect this competitive environment.

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

The Exchange believes that the Proposed Fees do not place certain market participants at a relative disadvantage to other market participants because the pricing of the Proposed Fees is associated with relative usage of the various market participants and does not impose a barrier to entry to smaller participants. The Exchange believes the Proposed Fees do not favor certain categories of market participants in a manner that would impose a burden on competition; rather, the allocation of the Proposed Fees reflects the network and access resources consumed by various market participants.

The Exchange believes the Proposed Fees do not place an undue burden on competition on other SROs that is not necessary or appropriate. MIAX PEARL Equities launched trading operations on September 25, 2020 and has a market share of only approximately 0.05%, with significantly less members than other SROs. Additionally, other equity exchanges have similar connectivity and port alternatives for their participants, including similar low-latency connectivity, but with much higher rates to connect.⁴⁰ The Exchange is also unaware of any assertion that the Proposed Fees would somehow unduly impair its competition with other equities exchanges. To the contrary, if the fees charged are deemed too high by market

⁴⁰ See supra notes 32 through 36.

participants, they can simply not connect to the Exchange or not use the services associated with the Proposed Access Fees.

While the Exchange recognizes the distinction between connecting to an exchange and trading at the exchange, the Exchange notes that it plans to operate in a highly competitive market in which market participants can readily connect and trade with venues they desire. In such an environment, the Exchange must continually adjust its fees to remain competitive with other exchanges. The Exchange believes that the Proposed Fees reflect this competitive environment.

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,⁴¹ and Rule 19b-4(f)(2)⁴² 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.

⁴¹ 15 U.S.C. 78s(b)(3)(A)(ii).

⁴² 17 CFR 240.19b-4(f)(2).

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act.

Comments may be submitted by any of the following methods:

Electronic Comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-PEARL-2020-33 on the subject line.

Paper Comments:

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

All submissions should refer to File Number SR-PEARL-2020-33. 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-PEARL-2020-33 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.⁴³

J. Matthew DeLesDernier,
Assistant Secretary.

⁴³ 17 CFR 200.30-3(a)(12).