

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-85316; File No. SR-EMERALD-2019-11)

March 14, 2019

Self-Regulatory Organizations; MIAX Emerald, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Adopt System Connectivity Fees

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on March 1, 2019, 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 MIAX Emerald Fee Schedule (the “Fee Schedule”) to adopt the Exchange’s system connectivity 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

---

<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 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 regarding connectivity to the Exchange. Specifically, the Exchange proposes to amend Sections 5a) and b) of the Fee Schedule to adopt the network connectivity fees for the 1 Gigabit (“Gb”) fiber connection and the 10Gb ultra-low latency (“ULL”) fiber connection, which are charged to both Members<sup>3</sup> and non-Members of the Exchange for connectivity to the Exchange’s primary/secondary facility. The Exchange also proposes to adopt network connectivity fees for the 1Gb and 10Gb fiber connections for connectivity to the Exchange’s disaster recovery facility. Each of these connections (with the exception of the 10Gb ULL) are shared connections (collectively, the “Shared Connections”), and thus can be utilized to access the Exchange and both of the Exchange’s affiliates, Miami International Securities Exchange, LLC (“MIAX Options”) and MIAX PEARL, LLC (“MIAX PEARL”). The 10Gb ULL connection is a dedicated connection (“Dedicated Connection”), which provides network connectivity solely to the trading platforms, market data systems, and test system facilities of MIAX Emerald. These proposed fees are collectively referred to herein as the “Proposed Fees.” The amounts of the Proposed Fees for the Shared Connections are the same amounts that are currently in place at MIAX Options and MIAX PEARL.<sup>4</sup> While the Exchange is new and only launching trading on March 1, 2019,

---

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

<sup>4</sup> See SR-MIAX-2019-10 and SR-PEARL-2019-08 (the “MIAX and PEARL Fee Filings”).

since: (i) all of the Proposed Fees (except for the fee relating to the 10Gb ULL connection) relate to Shared Connections, and thus are the same amounts as are currently in place at MIAX Options and MIAX PEARL; (ii) all of the Members of MIAX Emerald are also members of either MIAX Options and/or MIAX PEARL, and most of those Members already have connectivity to the Exchange via existing Shared Connections (without paying any new incremental connectivity fees), the Exchange is providing similar information to that which was provided in the MIAX and PEARL Fee Filings, including providing detail about the market participants impacted by the Proposed Fees, as well as the costs incurred by the Exchange associated with providing the connectivity alternatives, in order to provide transparency and support relating to the Exchange's belief that the Proposed Fees are reasonable, equitable, and non-discriminatory, and to provide sufficient information for the Commission to determine that the Proposed Fees are consistent with the Act. The proposed rule change is immediately effective upon filing with the Commission pursuant to Section 19(b)(3)(A) of the Act.

The Exchange proposes to offer to both Members and non-Members various bandwidth alternatives for connectivity to the Exchange, to its primary and secondary facilities, consisting of a 1Gb fiber connection and a 10Gb ULL fiber connection. The 10Gb ULL offering uses an ultra-low latency switch, which provides faster processing of messages sent to it in comparison to the switch used for the other types of connectivity. The Exchange also proposes to offer to both Members and non-Members various bandwidth alternatives for connectivity to the Exchange, to its disaster recovery facility, consisting of a 1Gb fiber connection and a 10Gb connection.

For the Shared Connections, the Exchange's MIAX Express Network Interconnect ("MENI") can be configured to provide Members and non-Members of the Exchange network

connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange and its affiliates, MIAX Options and MIAX PEARL, via a single, shared connection. Any Member or non-Member can purchase a Shared Connection.

For the Dedicated Connection, the Exchange's MENI is configured to provide Members and non-Members of the Exchange network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange. Any Member or non-Member can purchase a Dedicated Connection. The Exchange determined to design its network architecture in a manner that offered 10Gb ULL connections as dedicated connections (as opposed to shared connections) in order to provide cost saving opportunities for itself and for its Members, by reducing the amount of equipment that the Exchange would have to purchase and to which the Members would have to connect.

For the Shared Connections, Members and non-Members utilizing the MENI to connect to the trading platforms, market data systems, test systems and disaster recovery facilities of the Exchange, MIAX Options, and MIAX PEARL via a single, shared connection are assessed only one monthly network connectivity fee per connection, regardless of the trading platforms, market data systems, test systems, and disaster recovery facilities accessed via such connection. Thus, since all of the Members of MIAX Emerald are also members of either MIAX Options and/or MIAX PEARL, and most of those Members already have connectivity to the Exchange via existing Shared Connections, most Members of MIAX Emerald have instant connectivity to the Exchange without paying any new incremental connectivity fees, as more fully-detailed below.

The Exchange proposes to establish the monthly network connectivity fees for such connections for both Members and non-Members. As discussed above, the amounts of the Proposed Fees for the Shared Connections are the same amounts that are currently in place at

MIAX Options and MIAX PEARL. The amount of the Proposed Fee for the Dedicated Connection is offered at a substantial discount to the amount currently in place at MIAX Options and MIAX PEARL. The reason for the substantial discount is that the Dedicated Connection offers access to only a single market (the Exchange), whereas the 10Gb ULL connection offered by MIAX Options and MIAX PEARL offers access to two markets (MIAX Options and MIAX PEARL). The network connectivity fees for connectivity to the Exchange's primary/secondary facility will be as follows: (a) 1,400 for the 1Gb connection; and (b) \$6,000 for the 10Gb ULL connection. The network connectivity fees for connectivity to the Exchange's disaster recovery facility will be as follows: (a) \$550 for the 1Gb connection; and (b) \$2,750 for the 10Gb connection.

## 2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act<sup>5</sup> in general, and furthers the objectives of Section 6(b)(4) of the Act<sup>6</sup> in particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among Exchange Members and issuers and other persons using any facility or system which the Exchange operates or controls. The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act<sup>7</sup> 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.

---

<sup>5</sup> 15 U.S.C. 78f(b).

<sup>6</sup> 15 U.S.C. 78f(b)(4).

<sup>7</sup> 15 U.S.C. 78f(b)(5).

First, 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 for the connectivity alternatives available on the Exchange, as proposed, are competitive and market-driven. The U.S. options markets are highly competitive (there are currently 16 options markets) and a reliance on competitive markets is an appropriate means to ensure equitable and reasonable prices.

The Exchange acknowledges that there is no regulatory requirement that any market participant connect to the Exchange, or that any participant connect at any specific connection speed. The rule structure for options exchanges are, in fact, fundamentally different from those of equities exchanges. The Exchange further recognizes that the decision of whether to connect to the Exchange is separate and distinct from the decision of whether and how to trade on the Exchange. The Exchange acknowledges that many firms may choose to connect to the Exchange, but ultimately not trade on it.

The Exchange,<sup>8</sup> MIAX Options,<sup>9</sup> and MIAX PEARL<sup>10</sup> are comprised of 41 distinct members amongst all three exchanges, excluding any additional affiliates of such members that are also members of the Exchange, MIAX Options, MIAX PEARL, or any combination thereof. Of those 41 distinct members, 28 of those distinct members are Members of MIAX Emerald. (Currently, there are no Members of MIAX Emerald that are not also members of MIAX Options or MIAX PEARL, or both.) Of those 28 distinct Members of MIAX Emerald, there are 6

---

<sup>8</sup> The Exchange has 28 distinct Members, excluding affiliated entities. See MIAX Emerald Exchange Member Directory, available at <https://www.miaxoptions.com>.

<sup>9</sup> MIAX Options has 38 distinct Members, excluding affiliated entities. See MIAX Options Exchange Member Directory, available at <https://www.miaxoptions.com>.

<sup>10</sup> MIAX PEARL has 36 distinct Members, excluding affiliated entities. See MIAX PEARL Exchange Member Directory, available at <https://www.miaxoptions.com>.

Members that have no connectivity to the Exchange. Members are not forced to purchase connectivity to the Exchange, and these Members have elected not to purchase such connectivity. Of note, these same 6 Members also do not have connectivity to either MIAX Options or MIAX PEARL. These Members either trade indirectly through other Members or non-Members that have connectivity to the Exchange, or do not trade and conduct another type of business on the Exchange. Of the remaining 22 distinct Members of MIAX Emerald, all 22 of those distinct Members already had connectivity to the Exchange via existing Shared Connections, thus providing all such 22 MIAX Emerald Members with instant connectivity to the Exchange without paying any new incremental connectivity fees.

Further, of those 22 Members, 14 of such Members elected to purchase additional connectivity to the Exchange, including additional Shared Connections and additional Dedicated Connections. The Exchange made available in advance to all of its prospective Members its proposed connectivity pricing (subject to regulatory clearance), in order for those prospective Members to make an informed decision about whether to become a Member of the Exchange and whether to purchase connectivity to the Exchange. Accordingly, each such Member made the decision to become a Member of the Exchange and to purchase connectivity to the Exchange, knowing in advance the connectivity pricing. And the vast majority of the additional connectivity purchased by those Members were for Dedicated Connections, the most expensive connectivity option.

As a result, of those 22 Members, through existing Shared Connections, newly purchased Shared Connections, and newly purchased Dedicated Connections: 14 Members have 1Gb (primary/secondary) connections; 13 Members have 10Gb ULL (primary/secondary) connections; 3 Members have 10Gb (disaster recovery) connections; and 10 Members have 1Gb

(disaster recovery) connections, or some combination of multiple various connections. The Exchange expects that all such Members with those Shared Connections and Dedicated Connections will trade on MIAX Emerald.

The 6 Members who have not purchased any connectivity to the Exchange are still able to trade on the Exchange indirectly through other Members or non-Member service bureaus that are connected. These 6 Members who have not purchased connectivity are not forced or compelled to purchase connectivity, and they retain all of the other benefits of membership with the Exchange. Accordingly, Members have the choice to purchase connectivity and are not compelled to do so in any way.

In addition, there are 5 non-Member service bureaus that already have connectivity to the Exchange via existing Shared Connections, thus providing all 5 of those non-Member service bureaus with instant connectivity to the Exchange without paying any new incremental connectivity fees. These non-Members freely purchased their connectivity from one of the Exchange's affiliates, either MIAX Options or MIAX PEARL, in order to offer trading services to other firms and customers, as well as access to the market data services that their connections to the Exchange provide them, but they are not required or compelled to purchase any of the Exchange's connectivity options.

The Exchange is launching trading on March 1, 2019. Thus, at the time that the 14 Members who elected to purchase connectivity to the Exchange, the Exchange was untested and unproven, and had 0% market share of the U.S. options industry. For all of 2018, the Exchange's affiliate, MIAX Options, had only 4.39% market share of the U.S. options industry

in 2018 in Equity/ETF classes according to the OCC.<sup>11</sup> For all of 2018, the Exchange's affiliate, MIAX PEARL, had only 4.82% market share of the U.S. options industry in Equity/ETF classes according to the OCC.<sup>12</sup> The Exchange is aware of no evidence that a combined market share less than 10% provides the Exchange with anti-competitive pricing power. Certainly, an untested and unproven exchange, with 0% market share, and no rule or requirement that a market participant must join or connect to it, does not have anti-competitive pricing power, with respect to setting the pricing for the Dedicated Connections or the Shared Connections. If the Exchange were to attempt to establish unreasonable connectivity pricing, then no market participant would join or connect. Therefore, since 28 distinct Members joined MIAX Emerald and 14 of those distinct Members purchased additional connectivity to the Exchange, all knowing, in advance, the connectivity fees, the Exchange believes the Proposed Fees are reasonable, equitable, and not unfairly discriminatory.

Separately, the Exchange knows of no reason why market participants could not simply drop their connections and cease being Members of the Exchange if the Exchange were to establish unreasonable and uncompetitive price increases for its connectivity alternatives. No options market participant is required by rule, regulation, or competitive forces to be a Member of the Exchange. Several market participants choose not to be Members of the Exchange and choose not to access the Exchange, and several market participants are proposing to access the Exchange indirectly through another market participant. To illustrate, the Exchange has only 34 total Members (including all such Members' affiliate Members). However, Cboe Exchange, Inc.

---

<sup>11</sup> See Exchange Market Share of Equity Products – 2018, The Options Clearing Corporation, available at <https://www.theocc.com/webapps/exchange-volume>.

<sup>12</sup> Id.

("Cboe") has over 200 members,<sup>13</sup> Nasdaq ISE, LLC has approximately 100 members,<sup>14</sup> and NYSE American LLC has over 80 members.<sup>15</sup> If all market participants were required to be Members of the Exchange and connect directly to the Exchange, the Exchange would have over 200 Members, in line with Cboe's total membership. But it does not. The Exchange only has 34 Members.

Further, since there are 41 distinct members amongst all three exchanges, and only 28 of those distinct members decided to become Members of MIAX Emerald, there were 13 distinct members that decided not to become Members of MIAX Emerald. This further reinforces the fact that all market participants are not required to be Members of the Exchange and are not required to connect to the Exchange. It is a choice whether to join and it is a choice to connect. Therefore, the Exchange believes that the Proposed Fees are fair, equitable, and non-discriminatory, as the fees are competitive.

With respect to the now MIAX Emerald Members that had Shared Connections in place as of August 1, 2018 (via a previously purchased Shared Connection from MIAX Options or MIAX PEARL), the Exchange finds it compelling that all of those Members continued to purchase those Shared Connections after August 1, 2018, when MIAX Options and MIAX PEARL increased the connectivity fees for the Shared Connections to the current amounts

---

<sup>13</sup> See Form 1/A, filed August 30, 2018 (<https://www.sec.gov/Archives/edgar/vpr/1800/18002831.pdf>); Form 1/A, filed August 30, 2018 (<https://www.sec.gov/Archives/edgar/vpr/1800/18002833.pdf>); Form 1/A, filed July 24, 2018 (<https://www.sec.gov/Archives/edgar/vpr/1800/18002781.pdf>); Form 1/A, filed August 30, 2018 (<https://www.sec.gov/Archives/edgar/data/1473845/999999999718007832/9999999997-18-007832-index.htm>).

<sup>14</sup> See Form 1/A, filed July 1, 2016 (<https://www.sec.gov/Archives/edgar/vpr/1601/16019243.pdf>).

<sup>15</sup> See <https://www.nyse.com/markets/american-options/membership#directory>.

proposed by the Exchange herein. In particular, the Exchange believes that the Proposed Fees for the Shared Connections are reasonable because MIAX Options and MIAX PEARL, which charge the same amount for the Shared Connections, did not lose any Members (or the number of Shared Connections each Member purchased) or non-Member Shared Connections when MIAX Options and MIAX PEARL proposed to increase the connectivity fees for the Shared Connections on August 1, 2018. For example, with respect to the Shared Connections maintained by now Members of MIAX Emerald who had Shared Connections in place as of July 2018, 12 Members purchased 1Gb connections. The vast majority of those Members purchased multiple such connections, the number of connections depending on their throughput requirements based on the volume of their quote/order traffic associated with their business model. After the fee increase, beginning August 1, 2018, the same 12 Members purchased 1Gb connections. Furthermore, the total number of connections did not decrease from July to August.

Further, with respect to the Shared Connections maintained by now Members of MIAX Emerald who had Shared Connections in place as of July 2018, of those Members and non-Members that bought multiple connections, no firm dropped any connections beginning August 1, 2018, when MIAX Options and MIAX PEARL increased its fees. Furthermore, the Exchange understands that MIAX Options and MIAX PEARL did not receive any official comment letters or complaints from any now Members of MIAX Emerald who had Shared Connections in place as of July 2018 regarding the increased fees regarding how the change was unreasonable, unduly burdensome, or would negatively impact their competitiveness amongst other market participants. Therefore, the Exchange believes that the Proposed Fees are fair, equitable, and non-discriminatory, as the fees are competitive.

The Exchange believes that the Proposed Fees are equitably allocated among Members and non-Members, as evidenced by the fact that the fees are allocated across all connectivity alternatives, and there is not a disproportionate number of Members purchasing any alternative – 14 Members have 1Gb (primary/secondary) connections; 13 Members have 10Gb ULL (primary/secondary) connections; 3 Members have 10Gb (disaster recovery) connections; and 10 Members have 1Gb (disaster recovery) connections, or some combination of multiple various connections.

Second, the Exchange believes that its proposal is consistent with Section 6(b)(4) of the Act because the Proposed Fees 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 to support this technology. The Exchange believes that it is reasonable and appropriate to establish its fees charged for use of its connectivity at a level 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. options industry.

The costs associated with making the network accessible to Exchange Members and non-Members, through the expansion associated with new Shared Connections and Dedicated Connections, as well as the general expansion of a state-of-the-art infrastructure, are extensive, have increased year-over-year in the past two years, and are projected to increase year-over-year in the future. 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, and costs associated with projects and initiatives designed to improve overall network performance and stability, through the Exchange's R&D efforts.

In order to provide more detail and to quantify the Exchange's costs, the Exchange notes that costs are associated with the infrastructure and headcount to fully-support the advances in infrastructure and expansion of network level services, including customer monitoring, alerting and reporting. The Exchange incurs technology expenses related to establishing and maintaining Information Security services, monitoring and remediation, as well as Regulation SCI mandated processes, associated with its network technology. Additionally, the Exchange incurred costs in the expansion / buildout of the network leading up to the launch of operations, and the network maintenance costs continue to increase year-over-year. For example, since the initial phases of the buildout of the Exchange over two years ago, with respect to the network, there has been an approximate 70% increase in technology-related personnel costs in infrastructure, due to expansion of services/support; an approximate 10% increase in datacenter costs due to price increases and footprint expansion; an approximate 5% increase in vendor-supplied dark fiber due to price increases and expanded capabilities; and a 30% increase in market data connectivity fees. There was also significant capital expenditures over this same period to upgrade and enhance the underlying technology components. The Exchange believes that it is reasonable and appropriate to establish its fees charged for use of its connectivity at a level that will partially offset the costs to the Exchange associated with the buildout, maintenance, and enhancement of its network infrastructure.

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, dominant 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.

Further, the Exchange invests significant resources in network R&D to 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 the Exchange's 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 a Member (and the SIPs) when the Exchange detects a problem with a Member's connectivity. The Exchange also incurs costs associated with the maintenance and improvement of existing tools and the development of new tools.

Certain recently developed network aggregation and monitoring tools provide the Exchange with the ability to measure network traffic with a much more granular level of variability. This is important as Exchange Members demand a higher level of network determinism and the ability to measure variability in terms of single digit nanoseconds. Also, routine R&D projects to improve the performance of the network's hardware infrastructure result in additional cost. As an example, in the last year, R&D efforts resulted in a performance improvement, requiring the purchase of new equipment to support that improvement, and thus resulting in increased costs in the hundreds of thousands of dollars range. In sum, the costs associated with maintaining and enhancing a state-of-the-art exchange network infrastructure in the U.S. options industry is a significant expense for the Exchange that also increases year-over-year, and thus the Exchange believes that it is reasonable to offset a portion of those costs

through establishing network connectivity fees, as proposed herein. Overall, the Proposed Fees are projected to offset only a portion of the Exchange's network connectivity costs.

The Exchange also believes its proposal to offer 10Gb ULL connections as dedicated connections furthers the objectives of Section 6(b)(5) of the Act<sup>16</sup> 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. In particular, for the Dedicated Connection, the Exchange's MENI is configured to provide Members and non-Members of the Exchange network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange. Any Member or non-Member can purchase a Dedicated Connection. The Exchange determined to design its network architecture in a manner that offered 10Gb ULL connections as dedicated connections (as opposed to shared connections) in order to provide cost saving opportunities for itself and for its Members, by reducing the amount of equipment that the Exchange would have to purchase and to which the Members would have to connect. A dedicated 10Gb ULL connection does not offer any unfair advantage over a shared 10GB ULL connection, as is being offered solely as a cost-saving measure to the Exchange and its Members.

The Exchange notes that other exchanges have similar connectivity alternatives for their participants, including similar low-latency connectivity. For example, Nasdaq PHLX LLC ("Phlx"), NYSE Arca, Inc. ("Arca"), NYSE American LLC ("NYSE American") and Nasdaq ISE, LLC ("ISE") all offer a 1Gb, 10Gb and 10Gb low latency ethernet connectivity

---

<sup>16</sup> 15 U.S.C. 78f(b)(5).

alternatives to each of their participants.<sup>17</sup> The Exchange further notes that Phlx, ISE, Arca and NYSE American each charge higher rates for such similar connectivity to primary and secondary facilities,<sup>18</sup> however the Exchange also notes that the Exchange's 10Gb ULL connection is dedicated solely to one market (the Exchange) whereas the Exchange believes that other exchanges offer a shared 10Gb ULL connection to multiple markets. 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.<sup>19</sup>

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

MIAX Emerald does not believe that the proposed rule changes will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. In particular, the Exchange has received no official comment letters or complaints from Members or others who connect to it that its Proposed Fees are negatively impacting or would negatively impact their abilities to compete with other market participants. Further, the Exchange is unaware of any assertion that its Proposed Fees would somehow unduly impair its competition

---

<sup>17</sup> See Phlx and ISE Rules, General Equity and Options Rules, General 8, Section 1(b). 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 the equivalent of the Exchange's 10Gb ULL connection. See also NYSE American Fee Schedule, Section V.B, and Arca Fees and Charges, Co-Location Fees. NYSE American and Arca each charge a monthly fee of \$5,000 for each 1Gb circuit, \$14,000 for each 10Gb circuit and \$22,000 for each 10Gb LX circuit, which the equivalent of the Exchange's 10Gb ULL connection.

<sup>18</sup> Id.

<sup>19</sup> See Nasdaq ISE, Options Rules, Options 7, Pricing Schedule, Section 11.D. (charging \$3,000 for disaster recovery testing & relocation services); see also Cboe Exchange, Inc. ("Cboe") Fees Schedule, p. 14, Cboe Command Connectivity Charges (charging a monthly fee of \$2,000 for a 1Gb disaster recovery network access port and a monthly fee of \$6,000 for a 10Gb disaster recovery network access port).

with other options exchanges. To the contrary, if the fees charged are deemed too high by market participants, they can simply disconnect.

While the Exchange recognizes the distinction between connecting to an exchange and trading at the exchange, the Exchange notes that it operates in a highly competitive options 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 changes 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,<sup>20</sup> and Rule 19b-4(f)(2)<sup>21</sup> 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.

---

<sup>20</sup> 15 U.S.C. 78s(b)(3)(A)(ii).

<sup>21</sup> 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](mailto:rule-comments@sec.gov). Please include File Number SR-EMERALD-2019-11 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-2019-11. 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-EMERALD-2019-11 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.<sup>22</sup>

Eduardo A. Aleman  
Deputy Secretary

---

<sup>22</sup> 17 CFR 200.30-3(a)(12).