

Required fields are shown with yellow backgrounds and asterisks.

Filing by MIAX Emerald, LLC
Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

Initial *	Amendment *	Withdrawal	Section 19(b)(2) *	Section 19(b)(3)(A) *	Section 19(b)(3)(B) *
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			Rule		
Pilot	Extension of Time Period for Commission Action *	Date Expires *	<input type="checkbox"/> 19b-4(f)(1)	<input type="checkbox"/> 19b-4(f)(4)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input checked="" type="checkbox"/> 19b-4(f)(2)	<input type="checkbox"/> 19b-4(f)(5)	
			<input type="checkbox"/> 19b-4(f)(3)	<input type="checkbox"/> 19b-4(f)(6)	

Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010	Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934
Section 806(e)(1) *	Section 806(e)(2) *
<input type="checkbox"/>	<input type="checkbox"/>
	Section 3C(b)(2) *
	<input type="checkbox"/>

Exhibit 2 Sent As Paper Document	Exhibit 3 Sent As Paper Document
<input type="checkbox"/>	<input type="checkbox"/>

Description

Provide a brief description of the action (limit 250 characters, required when Initial is checked *).

Proposal to amend the Fee Schedule to establish Application Programming Interface Testing and Certification fees and Network Connectivity Testing and Certification fees.

Contact Information

Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.

First Name * Michael Last Name * Slade
Title * Counsel
E-mail * mslade@miami-holdings.com
Telephone * (609) 897-8499 Fax

Signature

Pursuant to the requirements of the Securities Exchange Act of 1934,

has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

(Title *)

Date 01/21/2021 Assistant Vice President and Associate Counsel
By Dimitriy Kotov

(Name *)

NOTE: Clicking the button at right will digitally sign and lock this form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.

dkotov@miami-holdings.com

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EFFS website.

Form 19b-4 Information *

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The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

Exhibit 1 - Notice of Proposed Rule Change *

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

Exhibit 1A- Notice of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice by Clearing Agencies *

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change, security-based swap submission, or advance notice being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

Exhibit 2 - Notices, Written Comments, Transcripts, Other Communications

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Exhibit Sent As Paper Document

Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

Exhibit 3 - Form, Report, or Questionnaire

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Exhibit Sent As Paper Document

Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

Exhibit 4 - Marked Copies

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

Exhibit 5 - Proposed Rule Text

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The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change.

Partial Amendment

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If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

1. **Text of the Proposed Rule Change**

(a) MIAX Emerald, LLC (“MIAX Emerald” or “Exchange”), pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)¹ and Rule 19b-4 thereunder,² proposes to amend the MIAX Emerald Fee Schedule (the “Fee Schedule”) to establish: (1) one-time membership application fees for new MIAX Emerald Members³; and (2) per-instance Application Programming Interface (“API”) Testing and Certification fees and Network Connectivity Testing and Certification fees for Members and non-Members.

A notice of the proposed rule change for publication in the Federal Register is attached hereto as Exhibit 1, and a copy of the applicable section of the proposed Fee Schedule is attached hereto as Exhibit 5.

(b) Inapplicable.

(c) Inapplicable.

2. **Procedures of the Self-Regulatory Organization**

The proposed rule change was approved by the Chief Executive Officer of the Exchange or his designee pursuant to authority delegated by the MIAX Emerald Board of Directors on January 29, 2020. Exchange staff will advise the Board of Directors of any action taken pursuant to delegated authority. No other action by the Exchange is necessary for the filing of the proposed rule change.

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ The term “Member” means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed “members” under the Exchange Act. See Exchange Rule 100 and the Definitions section of the Fee Schedule.

Questions and comments on the proposed rule change may be directed to Michael Slade, Counsel, at (609) 897-8499.

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

a. Purpose

The Exchange proposes to amend the Fee Schedule to establish: (1) one-time membership application fees for new MIAX Emerald Members based upon the applicant's status as either an Electronic Exchange Member ("EEM")⁴ or as a Market Maker⁵; and (2) per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees for Members and non-Members.

MIAX Emerald commenced operations as a national securities exchange registered under Section 6 of the Act⁶ on March 1, 2019.⁷ The Exchange adopted its transaction fees and certain of its non-transaction fees in its filing SR-EMERALD-2019-15.⁸ In that filing, the Exchange expressly waived, among other fees, the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees, both

⁴ "Electronic Exchange Member" or "EEM" means the holder of a Trading Permit who is not a Market Maker. Electronic Exchange Members are deemed "members" under the Exchange Act. See Exchange Rule 100 and the Definitions section of the Fee Schedule.

⁵ The term "Market Makers" refers to "Lead Market Makers", "Primary Lead Market Makers" and "Registered Market Makers" collectively. See Exchange Rule 100 and the Definitions section of the Fee Schedule.

⁶ 15 U.S.C. 78f.

⁷ See Securities Exchange Act Release No. 84891 (December 20, 2018), 83 FR 67421 (December 28, 2018) (File No. 10-233) (order approving application of MIAX Emerald, LLC for registration as a national securities exchange).

⁸ See Securities Exchange Act Release No. 85393 (March 21, 2019), 84 FR 11599 (March 27, 2019) (SR-EMERALD-2019-15) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Establish the MIAX Emerald Fee Schedule).

for Members and non-Members, in order to provide an incentive to prospective market participants to become Exchange Members and for prospective Members and non-Members to connect to MIAX Emerald as soon as possible. At that time, the Exchange waived the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees for the Waiver Period,⁹ and stated that it would provide notice to market participants when the Exchange intended to terminate the Waiver Period.

On September 15, 2020, the Exchange issued a Regulatory Circular which announced that the Exchange would terminate the Waiver Period for, among other fees, the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees for Members and non-Members, beginning October 1, 2020.¹⁰

The Exchange initially filed its proposals to establish the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees on October 1, 2020.¹¹ The First Proposed Rule Changes were

⁹ “Waiver Period” means, for each applicable fee, the period of time from the initial effective date of the MIAX Emerald Fee Schedule until such time that the Exchange has an effective fee filing establishing the applicable fee. The Exchange 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.

¹⁰ See MIAX Emerald Regulatory Circular 2020-41 available at https://www.miaxoptions.com/sites/default/files/circular-files/MIAX_Emerald_RC_2020_41.pdf.

¹¹ See Securities Exchange Act Release Nos. 90183 (October 14, 2020), 85 FR 66607 (October 20, 2020) (SR-EMERALD-2020-09) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt Application Programming Interface (“API”) Testing and Certification Fees and Network

published for comment in the Federal Register between October 20-21, 2020.¹² On November 25, 2020, the Exchange withdrew the First Proposed Rule Changes¹³ and refiled its proposal to establish the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees.¹⁴ The Second Proposed Rule Change was published for comment in the Federal Register on December 14, 2020.¹⁵ On January 21, 2021, the Exchange withdrew the Second Proposed Rule Change and refiled its proposal.¹⁶

One-Time Membership Application Fee

The Exchange proposes to assess a one-time membership application fee based upon the applicant's status as either an EEM or as a Market Maker. The Exchange proposes that applicants for MIAX Emerald membership as an EEM will be assessed a one-time application fee of \$2,500.

Connectivity Testing and Certification Fees); 90196 (October 15, 2020), 85 FR 67064 (October 21, 2020) (SR-EMERALD-2020-11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt One-Time Membership Application Fees and Monthly Trading Permit Fees). The Exchange's prior proposals to establish the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees are collectively referred to herein as the "First Proposed Rule Changes." The Exchange notes that it will refile its proposal to establish monthly Trading Permit fees in a separate filing.

¹² See id.

¹³ See Comment Letter from Joseph W. Ferraro III, SVP, Deputy General Counsel, the Exchange, dated November 20, 2020, notifying the Commission that the Exchange will withdraw the First Proposed Rule Changes.

¹⁴ See Securities Exchange Act Release Nos. 90597 (December 8, 2020), 85 FR 80878 (December 14, 2020) (SR-EMERALD-2020-15) (the "Second Proposed Rule Change").

¹⁵ See id.

¹⁶ See Comment Letter from Joseph W. Ferraro III, SVP, Deputy General Counsel, the Exchange, dated January 15, 2021, notifying the Commission that the Exchange will withdraw the Second Proposed Rule Change.

The Exchange proposes that applicants for MIAX Emerald membership as a Market Maker will be assessed a one-time application fee of \$3,000. The difference in the proposed membership application fee to be charged to EEMs and Market Makers is because of the additional review and resources involved in processing a Market Maker’s application, as Market Makers have greater and more complex obligations with respect to doing business on the Exchange.¹⁷ MIAX Emerald’s proposed one-time membership application fees are the same as the one-time application fees in place at the Exchange’s affiliate, Miami International Securities Exchange, LLC (“MIAX”) (\$2,500 for an EEM and \$3,000 for a MIAX Market Maker)¹⁸, and similar to or less than application fees for the Cboe Exchange, Inc. (“Cboe”) (\$3,000 for an individual applicant and \$5,000 for an applicant organization)¹⁹ and Nasdaq ISE, LLC (“Nasdaq ISE”) (\$7,500 per firm for a primary market maker, \$5,500 per firm for a competitive market maker, and \$3,500 per firm for an electronic access member).²⁰ Below is the table showing the proposed one-time membership application fees for EEMs and Market Makers:

Type of Membership	Application Fee
Electronic Exchange Member	\$2,500.00
Market Maker	\$3,000.00

API Testing and Certification Fees for Members

The Exchange also proposes to adopt an API Testing and Certification fee for Members. An API makes it possible for Member software to communicate with MIAX Emerald software

¹⁷ See Chapter VI of the Exchange’s rules, generally.

¹⁸ See MIAX Fee Schedule, Section 3)a).

¹⁹ See Cboe Fees Schedule, p. 9, Cboe Trading Permit Holder Application Fees.

²⁰ See Nasdaq ISE, Options Rules, Options 7, Pricing Schedule, Section 9. Legal and Regulatory A. Application.

applications, and is subject to Member testing with, and certification by, MIAX Emerald. API testing and certification includes, for EEMs, testing all available order types, new order entry, order management, order throughput and mass order cancellation. For Market Makers, API testing and certification also includes testing of all available quote types, quote throughput, quote management and cancellation, Aggregate Risk Manager settings and triggers, and confirmation of quotes within the trading engines.

The API Testing and Certification fees for Members are based upon the type of interface that the Member has been credentialed to use. The Exchange proposes to adopt an API testing and certification fee for EEMs (other than Clearing Firms): (i) initially per API for Financial Information Exchange (“FIX”)²¹ ports, FIX Drop Copy (“FXD”)²² ports and Clearing Trade Drop (“CTD”)²³ ports in the month the EEM has been credentialed to use one or more ports in the production environment for the tested API, and (ii) each time an EEM initiates a change to its

²¹ “FIX Port” means an interface with MIAX Emerald systems that enables the Port user to submit simple and complex orders electronically to MIAX Emerald. See the Definitions section of the Fee Schedule.

²² The FIX Drop Copy (“FXD”) Port is a messaging interface that will provide a copy of real-time trade execution, trade correction and trade cancellation information to FXD Port users who subscribe to the service. FXD Port users are those users who are designated by an EEM to receive the information and the information is restricted for use by the EEM. FXD Port Fees will be assessed in any month the Member is credentialed to use the FXD Port in the production environment. See the Definitions section of the Fee Schedule.

²³ “CTD Port” or “Clearing Trade Drop Port” provides an Exchange Member with a real-time clearing trade updates. The updates include the Member’s clearing trade messages on a low latency, real-time basis. The trade messages are routed to a Member’s connection containing certain information. The information includes, among other things, the following: (i) trade date and time; (ii) symbol information; (iii) trade price/size information; (iv) Member type (for example, and without limitation, Market Maker, Electronic Exchange Member, Broker-Dealer); and (v) Exchange MPID for each side of the transaction, including Clearing Member MPID. See the Definitions section of the Fee Schedule.

system that requires testing and certification. The Exchange proposes to adopt an API testing and certification fee for EEM Clearing Firms (i) initially per API in the month the EEM Clearing Firm has been credentialed to use one or more CTD Ports in the production environment, and (ii) each time an EEM Clearing Firm initiates a change to its system that requires testing and certification.

The Exchange proposes to adopt an API testing and certification fee for Market Makers: (i) initially per API for CTD and MIAX Emerald Express Interface (“MEI”)²⁴ ports in the month the Market Maker has been credentialed to use one or more ports in the production environment for the tested API and the Market Maker has been assigned to quote in one or more classes, and (ii) each time a Market Maker initiates a change to its system that requires testing and certification. The Exchange also proposes that API Testing and Certification fees will not be assessed in situations where the Exchange initiates a mandatory change to the Exchange’s System²⁵ that requires testing and certification. The Exchange proposes to assess Member API Testing and Certification fees of \$1,000 for EEMs and \$2,500 for Market Makers. Below is the proposed table for API Testing and Certification fees for Members:

²⁴ The MEI is a connection to the MIAX Emerald System that enables Market Makers to submit simple and complex electronic quotes to MIAX Emerald. The Exchange offers Full Service MEI Ports, which provide Market Makers with the ability to send Market Maker simple and complex quotes, eQuotes, and quote purge messages to the MIAX Emerald System. Full Service MEI Ports are also capable of receiving administrative information. Market Makers are limited to two Full Service MEI Ports per Matching Engine. The Exchange also offers Limited Service MEI Ports, which provide Market Makers with the ability to send simple and complex eQuotes and quote purge messages only, but not Market Maker Quotes, to the MIAX Emerald System. Limited Service MEI Ports are also capable of receiving administrative information. Market Makers initially receive two Limited Service MEI Ports per Matching Engine. See the Definitions section of the Fee Schedule.

²⁵ The term “System” means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

Type of Member	API Testing and Certification Fee
Electronic Exchange Member	\$1,000.00
Market Maker	\$2,500.00

API Testing and Certification Fee for Non-Members

The Exchange proposes to adopt an API Testing and Certification fee for Third Party Vendors,²⁶ Service Bureaus²⁷ and other non-Members (such as clearing firms): (i) initially per API for FIX, FXD, CTD and MEI ports in the month the Third Party Vendor, Service Bureau or non-Member has been credentialed to use one or more ports in the production environment for the tested API, and (ii) each time a Third Party Vendor, Service Bureau, or other non-Member initiates a change to its system that requires testing and certification. The Exchange also proposes that API Testing and Certification fees will not be assessed to non-Members in situations where the Exchange initiates a mandatory change to the Exchange's System that requires testing and certification.

The Exchange proposes to assess non-Member API Testing and Certification fees of \$1,200 for Third Party Vendors, Service Bureaus and other non-Members. Below is the proposed table for API Testing and Certification fees for non-Members:

Non-Member	API Testing and Certification Fee
Third Party Vendors and Service Bureaus and other non-Members	\$1,200.00

²⁶ Third Party Vendors are subscribers of MIAX Emerald's market and other data feeds, which they in turn use for redistribution purposes. See the Definitions section of the Fee Schedule.

²⁷ "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. See the Definitions section of the Fee Schedule.

The proposed higher fee charged to Third Party Vendors, Service Bureaus and non-Members reflects the greater amount of time spent by MIAX Emerald employees testing and certifying non-Members. It has been MIAX Emerald's experience that Member testing takes less time than non-Member testing because Members have more experience testing these systems with exchanges, resulting in generally fewer questions and issues arising during the testing and certification process. Also, because Third Party Vendors and Service Bureaus are redistributing data and reselling services to other Members and market participants, the number and types of scenarios that need to be tested are more numerous and complex than those tested and certified for a single Member.

The Exchange believes it is necessary to charge an API Testing and Certification fee to Members and non-Members because of the time and resources spent to ensure that Member and non-Member APIs function correctly to prevent any System malfunction. Further, the Exchange believes the price differential in API Testing and Certification fees for Members and non-Members is not unfairly discriminatory because, in the Exchange's experience, Member testing takes less time than non-Member testing as Members have more experience testing these systems with exchanges, resulting generally in fewer questions and issues arising during the testing and certification process.

Network Connectivity Testing and Certification Fee for Members

The Exchange established electronic communication connections with Members and now proposes to assess Members a Network Connectivity Testing and Certification fee for each 1 Gigabit ("Gb") connection and 10 Gb ultra-low-latency ("ULL") connection. The Exchange proposes to assess a Member Network Connectivity Testing and Certification fee: (i) initially per connection in the month the Individual Firm has been credentialed to use any API or market data

feeds in the production environment utilizing the tested network connection, and (ii) each time an individual firm initiates a change to its system that requires network connectivity testing and certification. Network Connectivity Testing and Certification fees will not be assessed in situations where the Exchange initiates a mandatory change to the Exchange's system that requires testing and certification. Member Network Connectivity Testing and Certification fees will not be assessed for testing and certification of connectivity to the Exchange's Disaster Recovery Facility.

The Exchange proposes to assess Members a Network Connectivity Testing and Certification Fee of \$1,000 per 1Gb connection and \$4,000 per 10Gb ULL connection. Below is the proposed table for Member Network Connectivity Testing and Certification fees:

Type of Member	1 Gigabit Fee Per Connection	10 Gigabit ULL Fee Per Connection
Individual Firm	\$1,000.00	\$4,000.00

The proposed fee amounts are identical to the fees currently assessed for the same services at the Exchange's affiliate options exchanges, MIAX and MIAX PEARL, LLC ("MIAX PEARL"). The Exchange notes that the Emerald Express Network Interconnect ("EENI")²⁸ is a network infrastructure which provides Members and non-Members network connectivity to the

²⁸ "EENI" means the Emerald Express Network Interconnect, which is a network infrastructure which provides Members and non-Members network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of MIAX Emerald. When utilizing a Shared cross-connect, the EENI can also be configured to offer network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of MIAX and MIAX PEARL. When utilizing a Dedicated cross-connect, the EENI can only be configured to offer network connectivity to the trading platforms, market data systems, and test systems of MIAX Emerald. The EENI consists of the low latency and ultra-low latency connectivity options set forth in the Exchange's Fee Schedule. See the Definitions section of the Fee Schedule.

trading platforms, market data systems, test systems, and disaster recovery facility of the Exchange. When utilizing a Shared²⁹ cross-connect, the EENI can also be configured to offer network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange's affiliate options exchanges, MIAX and MIAX PEARL. Members utilizing a single, Shared cross-connect to connect to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange, MIAX and MIAX PEARL will only be assessed one Network Connectivity Testing and Certification fee per connection tested, regardless of the trading platforms, market data systems, test systems, and disaster recovery facilities accessed via such connection.

Network Connectivity Testing and Certification Fee for Non-Members

MIAX Emerald established electronic communication connections with Service Bureaus, Extranet Providers and other non-Members, and now proposes to assess a Network Connectivity Testing and Certification fee for each 1Gb connection and 10Gb ULL connection. The Exchange proposes to assess a non-Member Network Connectivity Testing and Certification fee: (i) initially per connection in the month the Service Bureau, Extranet Provider or other non-Member has been credentialed to use any API or market data feeds in the production environment using the tested network connection, and (ii) each time the Service Bureau, Extranet Provider or other non-Member initiates a change to its system that requires network connectivity testing and certification. Network Connectivity Testing and Certification fees will not be

²⁹ "Shared" (cross-connect) means cross-connect that provides network connectivity to the trading platforms, market data systems, test systems, and/or disaster recovery facilities of MIAX Emerald, MIAX and MIAX PEARL via a single, shared connection. The following connections can be Shared across MIAX Emerald, MIAX and MIAX PEARL: 1 Gigabit, 1 Gigabit Disaster Recovery, and 10 Gigabit Disaster Recovery. See the Definitions section of the Fee Schedule.

assessed in situations where the Exchange initiates a mandatory change to the Exchange's system that requires testing and certification. Non-Member Network Connectivity Testing and Certification fees will not be assessed for testing and certification of connectivity to the Exchange's Disaster Recovery Facility.

The Exchange proposes to assess non-Members a Network Connectivity Testing and Certification Fee of \$1,200 per 1Gb connection and \$4,200 per 10Gb ULL connection. Below is the proposed table for non-Member Network Connectivity Testing and Certification fees:

Non-Member	1 Gigabit Fee Per Connection	10 Gigabit ULL Fee Per Connection
Service Bureau/Extranet Provider and other non-Members	\$1,200.00	\$4,200.00

The EENI is also available to non-Member subscribers. For non-Member subscribers, when utilizing a Shared cross-connect, the EENI can also be configured to offer network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange's affiliate options exchanges, MIAX and MIAX PEARL. Accordingly, non-Members utilizing Shared cross-connects to connect to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange and its affiliates, MIAX and MIAX PEARL, will only be assessed one Network Connectivity Testing and Certification fee per connection tested, regardless of the trading platforms, market data systems, test systems, and disaster recovery facilities accessed via such connection. The Member and non-Member Network Testing and Certification fees represent installation and support costs incurred by the Exchange as it works with each Member and non-Member to make sure there are appropriate electronic communication connections with MIAX Emerald. The Exchange's affiliate options exchanges, MIAX and MIAX PEARL, charge the same fees for the

same services for their Members and non-Members.³⁰ The Exchange proposes to assess a higher Network Connectivity Testing and Certification fee to non-Members than to Members, similar to how MIAX and MIAX PEARL assesses such fees to their Members and non-Members. The proposed higher fee charged to non-Members reflects the greater amount of time spent by MIAX Emerald employees testing and certifying non-Members. It has been MIAX Emerald's experience that Member network connectivity testing takes less time than non-Member network connectivity testing because Members have more experience testing these systems with exchanges as generally fewer questions and issues arise during the testing and certification process.

b. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act³¹ in general, and furthers the objectives of Section 6(b)(4) of the Act³² in particular, in that it is an equitable allocation of reasonable dues, fees and other charges among its members and issuers and other persons using its facilities. The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest and is not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

³⁰ See MIAX Fee Schedule, Sections 4)c) and 4)d); see also MIAX PEARL Fee Schedule, Sections 4)c) and 4)d).

³¹ 15 U.S.C. 78f(b).

³² 15 U.S.C. 78f(b)(4) and (5).

The Exchange launched trading on March 1, 2019. For the month of December 2020, the Exchange had only a 3.58% market share of the U.S. options industry.³³ The Exchange is not aware of any evidence that a market share of approximately 3% provides the Exchange with anti-competitive pricing power. If the Exchange were to attempt to establish unreasonable pricing, then no market participant would apply to become a Member of the Exchange, or test and certify with the Exchange's trading System.

The Exchange believes the proposed one-time membership application fee is reasonable, equitable and not unfairly discriminatory because it is a one-time fee that is reasonably related to (and designed to recover) the Exchange's cost associated with reviewing and approving membership applications, which consists primarily of the time and resources of Exchange personnel to process the membership application and conduct the new member on-boarding process. The Exchange's process for reviewing and approving potential new Members involves several steps and participation from personnel in multiple Exchange departments, as follows: (i) reviewing prospective Member information provided in various membership forms, including, where necessary, possibly consulting with FINRA, pursuant to the Exchange's Regulatory Services Agreement; (ii) the on-boarding process, where Exchange personnel contacts the firm for an introductory meeting with the Exchange's Business Team to discuss goals, answer questions and schedule the technical on-boarding meeting; (iii) the technical on-boarding meeting, where the Exchange's on-boarding team and Trading Operations Team guides the firm through the on-boarding process with Exchange personnel available to discuss network

³³ See The Options Clearing Corporation ("OCC") publishes options and futures volume in a variety of formats, including daily and monthly volume by exchange, available here: <https://www.theocc.com/market-data/volume/default.jsp>.

connectivity, APIs, Exchange functionality and operational issues; and (iv) follow-ups with the Trading Operations Team to coordinate testing, as necessary, until the firm is active in the Exchange's live trading environment.³⁴

The Exchange tracks the number of hours spent by Exchange personnel providing the aforementioned services per membership application. Based on the average number of person hours spent by the Exchange on processing a typical membership application, and based on the Exchange's average cost per full-time employee ("FTE") of approximately \$250,000 (inclusive of all compensation and employee benefits) per year, the Exchange represents that its cost to provide this service is reasonably related to (and often exceeds) the amount of the membership application fee the Exchange proposes to charge for such service. In particular, it takes approximately 40 person hours to review, on-board and approve a membership application. Therefore, the cost to the Exchange for the review, on-boarding, and approval of each application is, on average, approximately \$4,000-\$5,000 (with EEM application costs closer to \$4,000, versus Market Maker application costs closer to \$5,000). Accordingly, the proposed one-time membership application fee would enable the Exchange to recover a material portion of such cost. The Exchange believes this is a conservative cost allocation because the Exchange is not allocating any additional costs beyond the employee compensation costs for employees directly involved in this process, such as costs associated with management review and sign off, compliance team reviews, technology costs of employees, office space costs of employees, costs associated with supporting departments' time for things such as internal meetings, project

³⁴ See the Exchange's Membership and Technical Onboarding process, available at <https://www.miaxoptions.com/membership/emerald>.

management coordination among the individuals who indirectly support the membership approval and on-boarding processes, and various other indirectly-related costs.

The Exchange also points out that it is not seeking to recoup any of its past costs associated with reviewing membership applications that took place during the Waiver Period. The Exchange currently has 35 Members,³⁵ all of whom did not pay the one-time membership application fee, as it was waived for the Waiver Period when these firms all became Members of the Exchange. Further, the majority of firms that are Members of the Exchange's affiliate options exchanges, MIAX and MIAX PEARL, also became Members of those exchanges during similar Waiver Periods for the MIAX and MIAX PEARL one-time membership application fees. Accordingly, the Exchange (and MIAX and MIAX PEARL) have assumed approximately 100% of the costs associated with processing membership applications for the majority of Member firms approved by the Exchange, MIAX, and MIAX PEARL. Accordingly, the Exchange believes that it is reasonable, equitable, and not unfairly discriminatory to now adopt a one-time membership application fee that is reasonably related to (and designed to recover) the Exchange's cost associated with reviewing and approving membership applications.

The Exchange believes the proposed API Testing and Certification fees and Network Connectivity Testing and Certification fees are reasonable, equitable and not unfairly discriminatory. The Exchange tracks the number of hours spent by Exchange personnel providing API testing and certification services per billable instance. Based on the average number of person hours spent by the Exchange on API testing and certification services, and based on the Exchange's average cost per FTE of approximately \$250,000 (inclusive of all compensation and employee benefits) per year, the Exchange represents that its costs to provide

³⁵ See <https://www.miaxoptions.com/exchange-members/emerald>.

these services are reasonably related to (and often exceed) the amount of the respective testing and certification fees the Exchange proposes to charge for such services. In particular, it takes approximately 20 person hours to complete the API testing and certification process.

Therefore, the cost to the Exchange to provide API testing and certification services is, on average, approximately \$2,500 per instance (with EEM and non-Member testing and certification costs closer to \$2,000, versus Market Maker testing and certification costs closer to \$3,000). Accordingly, the proposed API Testing and Certification fees would enable the Exchange to recover a material portion of such costs. The Exchange believes this is a conservative cost allocation because the Exchange is not allocating any additional costs beyond the employee compensation costs for employees directly involved in this process, such as management review and sign off, technology costs of employees, office space costs of employees, costs associated with supporting departments' time for things such as internal meetings, project management coordination among the individuals who indirectly support the testing and certification process, and various other indirectly-related costs.

The Exchange also points out that it is not seeking to recoup any of its past costs associated with conducting API testing and certification that took place during the Waiver Period. The Exchange currently has 35 Members,³⁶ all of whom did not pay the API testing and certification fee, as it was waived for the Waiver Period when these firms all became Members of the Exchange. Further, the majority of firms that are Members of the Exchange's affiliate options exchanges, MIAX and MIAX PEARL, also became Members of those exchanges during similar Waiver Periods for the MIAX and MIAX PEARL API Testing and Certification fees. Accordingly, the Exchange (and MIAX and MIAX PEARL) have assumed approximately 100%

³⁶ See id.

of the costs associated with conducting API testing and certification for the majority of Member firms approved by the Exchange, MIAX, and MIAX PEARL. Accordingly, the Exchange believes that it is reasonable, equitable, and not unfairly discriminatory to now adopt a per-instance fee that is reasonably related to (and designed to recover) the Exchange's cost associated with conducting API testing and certification.

The Exchange also tracks the number of hours spent by Exchange personnel providing network connectivity testing and certification services per billable instance. Based on the average number of person hours spent by the Exchange on network connectivity testing and certification services, and based on the Exchange's average cost per FTE of approximately \$250,000 (inclusive of all compensation and employee benefits) per year, the Exchange represents that its costs to provide these services are reasonably related to (and often exceed) the amount of the respective testing and certification fees the Exchange proposes to charge for such services. In particular, it takes approximately 20 person hours to complete the network testing and certification process for 1 Gigabit connections, and approximately 40 person hours to complete the network testing and certification process for 10 Gigabit ULL connections. Therefore, the cost to the Exchange to provide network connectivity testing and certification services is, on average, approximately \$2,500 per instance for 1 Gigabit connections, and approximately \$5,000 per instance for 10 Gigabit ULL connections. Accordingly, the proposed Network Connectivity Testing and Certification fees would enable the Exchange to recover a material portion of such costs. The Exchange believes this is a conservative cost allocation because the Exchange is not allocating any additional costs beyond the employee compensation costs for employees directly involved in this process, such as management review and sign off, technology costs of employees, office space costs of employees, costs associated with supporting

departments' time for things such as internal meetings, project management coordination among the individuals who indirectly support the testing and certification process, and various other indirectly-related costs.

The Exchange believes the difference in the proposed membership application fee to be charged to EEMs and Market Makers is an equitable allocation of reasonable dues and fees pursuant to Section 6(b)(4) of the Act³⁷ because of the additional review and resources involved in processing a Market Maker's application as opposed to an EEM's application, as Market Makers have greater and more complex obligations with respect to doing business on the Exchange.³⁸

The Exchange believes its proposal to adopt API Testing and Certification fees and Network Connectivity Testing and Certification fees for Members and non-Members is an equitable allocation of reasonable dues and fees pursuant to Section 6(b)(4) of the Act³⁹ because it is a per-instance fee that is reasonably related to (and designed to recover) the Exchange's cost associated with providing such API Testing and Certification services and Network Connectivity Testing and Certification services, which consists primarily of the time and resources spent to ensure that Member and non-Member APIs and connectivity function correctly to prevent any System malfunction.

Further, the Exchange believes the price differential in API Testing and Certification fees and Network Connectivity Testing and Certification fees for Members and non-Members is not unfairly discriminatory because, in the Exchange's experience, Member testing utilizes less

³⁷ 15 U.S.C. 78f(b)(4).

³⁸ See supra note 17.

³⁹ 15 U.S.C. 78f(b)(4).

Exchange resources and employee time than non-Member testing as Members have more experience testing these systems with exchanges, resulting generally in fewer questions and issues arising during the testing and certification process. Also, with respect to API testing and certification, because Third Party Vendors and Service Bureaus are redistributing data and reselling services to other Members and market participants the number and types of scenarios that need to be tested are more numerous and complex than those tested and certified for Members.

The Exchange believes the difference in the proposed 1 Gigabit and 10 Gigabit ULL network connectivity testing and certification fees is an equitable allocation of reasonable dues and fees pursuant to Section 6(b)(4) of the Act⁴⁰ because of the additional review and resources involved in testing and certifying a 10 Gigabit ULL connection as opposed to a 1 Gigabit connection, as 10 Gigabit ULL connections offer vastly greater products and services which require significantly more time to test, including Market Maker quoting systems. The Exchange believes its proposed API Testing and Certification fees and Network Connectivity Testing and Certification fees are reasonable and well within the range of non-transaction fees assessed among other exchanges, including the Exchange's affiliate options exchanges, MIAX and MIAX PEARL.⁴¹

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

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

Intra-Market Competition

⁴⁰ 15 U.S.C. 78f(b)(4).

⁴¹ See supra note 30.

The Exchange believes that the proposed fees do not put any market participants at a relative disadvantage compared to other market participants. The proposed fees would apply to all new Exchange Members and those firms looking to establish APIs and network connectivity in the same manner. Market participants may not only choose whether to become Exchange Members at all, but may choose to become members at competing options exchanges instead.

The Exchange further believes the proposed fees do not place any market participant at a disadvantage compared to other market participants because the proposed API Testing and Certification and Network Connectivity Testing and Certification fees are intended to cover the situations where a Member or non-Member firm makes changes to its own system for its own business purpose (i.e., instances where a firm is trying to improve its quoting engine), which requires the Exchange to test those re-architected systems. This testing requires the time of Exchange personnel in several departments (Trading Operations, Business, On-Boarding, Membership), and occurs primarily outside of normal business hours, often over the course of the weekend. The proposed fees are a way for the Exchange to recoup its costs associated with this testing. When the Exchange determines to make upgrades to its own system which requires mandatory testing and certification by Members, the Exchange does not charge any fees.

The Exchange believes that the proposed fees do not dampen innovation because the majority of Exchange Members are members of most, if not all, of the other 15 options exchanges. Those exchanges also require testing and certification any time the Member makes changes to its system at those exchanges, and also charge a fee to recoup the costs associated with testing and certifying members. The Exchange also notes that it has never received a complaint from a Member or non-Member any time a Member or non-Member has made a change to its own system that resulted in the Exchange assessing a testing and certification fee.

Without some sort of testing and certification fee, the Exchange believes that Members and non-Members might be less efficient in testing their systems, potentially resulting in excessive time being consumed by the Exchange re-testing and re-certifying Members and non-Members, to the detriment of all market participants as Exchange resources are diverted away from other trading operations.

The Exchange also believes that the proposed fees neither favor nor penalize one or more categories of market participants in a manner that would impose an undue burden on competition. To the extent that various market participants are charged different fees for the one-time membership application and per-instance API and network connectivity testing, those distinctions are not unfairly discriminatory and do not unfairly burden one set of market participants over another. The difference in the proposed membership application fee to be charged to EEMs and Market Makers is because of the additional review and resources involved in processing a Market Maker's application, as Market Makers have greater and more complex obligations with respect to doing business on the Exchange.⁴² The proposed higher fee charged to Third Party Vendors, Service Bureaus and non-Members reflects the greater amount of time spent by MIAX Emerald employees testing and certifying non-Members. It has been MIAX Emerald's experience that Member testing takes less time than non-Member testing because Members have more experience testing these systems with exchanges, resulting in generally fewer questions and issues arising during the testing and certification process. Also, because Third Party Vendors and Service Bureaus are redistributing data and reselling services to other Members and market participants, the number and types of scenarios that need to be tested are more numerous and complex than those tested and certified for a single Member. The higher fee

⁴² See supra note 17.

charged to non-Members reflects the greater amount of time spent by MIAX Emerald employees testing and certifying non-Members. It has been MIAX Emerald's experience that Member network connectivity testing takes less time than non-Member network connectivity testing because Members have more experience testing these systems with exchanges as generally fewer questions and issues arise during the testing and certification process. The proposed higher fee charged for 10 Gigabit ULL connections versus 1 Gigabit ULL connections reflects the greater amount of time spent by MIAX Emerald employees testing and certifying 10 Gigabit ULL connections. MIAX Emerald's proposed one-time membership application fee and per-instance API Testing and Certification fee levels and Network Connectivity Testing and Certification fee levels, as described herein, are comparable to fee levels charged by other options exchanges for the same or similar services, including those fees assessed by the Exchange's affiliates, MIAX and MIAX PEARL.⁴³

The Exchange believes that the proposed API Testing and Certification fees and Network Connectivity Testing and Certification fees do not place certain market participants at a relative disadvantage to other market participants because the fees do not apply unequally to different size market participants, but instead would allow the Exchange to charge for the time and resource necessary for API testing and certification and network connectivity testing and certification for Members and non-Members to ensure proper functioning of all available order types, new order entry, order management, order throughput and mass order cancellation (as well as, for Market Makers, all available quote types, quote throughput, quote management and cancellation, Aggregate Risk Manager settings and triggers, and confirmation of quotes within the trading engines). Accordingly, the proposed API Testing and Certification fees and network

⁴³ See supra notes 18, 19, 20 and 30.

connectivity testing and certification fees do not favor certain categories of market participants in a manner that would impose a burden on competition.

Inter-Market Competition

The Exchange believes the proposed API Testing and Certification fees and Network Connectivity Testing and Certification fees do not place an undue burden on competition on other SROs that is not necessary or appropriate. The Exchange believes that the proposed fees do not impose a burden on competition or on other exchanges that is not necessary or appropriate because of the availability of numerous substitute options exchanges. There are 15 other options exchanges where market participants can become members.

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

No written comments were either solicited or received.

6. **Extension of Time Period for Commission Action**

Not applicable.

7. **Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2)**

Pursuant to Section 19(b)(3)(A)(ii) of the Act,⁴⁴ and Rule 19b-4(f)(2) thereunder⁴⁵ the Exchange has designated this proposal as establishing or changing a due, fee, or other charge imposed on any person, whether or not the person is a member of the self-regulatory organization, which renders the proposed rule change effective upon filing.

8. **Proposed Rule Change Based on Rules of Another Self-Regulatory Organization or of the Commission**

The proposed rule change is not based on the rules of another exchange or of the

⁴⁴ 15 U.S.C. 78s(b)(3)(A)(ii).

⁴⁵ 17 CFR 240.19b-4.

Commission.

9. Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act

Not applicable.

10. Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act

Not applicable.

11. Exhibits

1. Completed notice of proposed rule change for publication in the Federal Register.
5. Copy of the applicable section of the MIAX Emerald Fee Schedule.

EXHIBIT 1

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34- ; File No. SR-EMERALD-2021-01)

January __, 2021

Self-Regulatory Organizations: Notice of Filing and Immediate Effectiveness of a Proposed Rule Change by MIAX Emerald, LLC to Amend Its Fee Schedule

Pursuant to the provisions of 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 January 21, 2021, MIAX Emerald, LLC (“MIAX Emerald” or “Exchange”), filed with the Securities and Exchange Commission (“Commission”) a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

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

The Exchange is filing a proposal to amend the MIAX Emerald Fee Schedule (the “Fee Schedule”) to establish: (1) one-time membership application fees for new MIAX Emerald Members³; and (2) per-instance Application Programming Interface (“API”) Testing and Certification fees and Network Connectivity Testing and Certification fees for Members and non-Members.

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.

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ The term “Member” means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed “members” under the Exchange Act. See Exchange Rule 100 and the Definitions section of the Fee Schedule.

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

The Exchange proposes to amend the Fee Schedule to establish: (1) one-time membership application fees for new MIAX Emerald Members based upon the applicant's status as either an Electronic Exchange Member ("EEM")⁴ or as a Market Maker⁵; and (2) per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees for Members and non-Members.

MIAX Emerald commenced operations as a national securities exchange registered under Section 6 of the Act⁶ on March 1, 2019.⁷ The Exchange adopted its transaction fees and certain

⁴ "Electronic Exchange Member" or "EEM" means the holder of a Trading Permit who is not a Market Maker. Electronic Exchange Members are deemed "members" under the Exchange Act. See Exchange Rule 100 and the Definitions section of the Fee Schedule.

⁵ The term "Market Makers" refers to "Lead Market Makers", "Primary Lead Market Makers" and "Registered Market Makers" collectively. See Exchange Rule 100 and the Definitions section of the Fee Schedule.

⁶ 15 U.S.C. 78f.

⁷ See Securities Exchange Act Release No. 84891 (December 20, 2018), 83 FR 67421 (December 28, 2018) (File No. 10-233) (order approving application of MIAX Emerald, LLC for registration as a national securities exchange).

of its non-transaction fees in its filing SR-EMERALD-2019-15.⁸ In that filing, the Exchange expressly waived, among other fees, the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees, both for Members and non-Members, in order to provide an incentive to prospective market participants to become Exchange Members and for prospective Members and non-Members to connect to MIAX Emerald as soon as possible. At that time, the Exchange waived the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees for the Waiver Period,⁹ and stated that it would provide notice to market participants when the Exchange intended to terminate the Waiver Period.

On September 15, 2020, the Exchange issued a Regulatory Circular which announced that the Exchange would terminate the Waiver Period for, among other fees, the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees for Members and non-Members, beginning October 1, 2020.¹⁰

⁸ See Securities Exchange Act Release No. 85393 (March 21, 2019), 84 FR 11599 (March 27, 2019) (SR-EMERALD-2019-15) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Establish the MIAX Emerald Fee Schedule).

⁹ “Waiver Period” means, for each applicable fee, the period of time from the initial effective date of the MIAX Emerald Fee Schedule until such time that the Exchange has an effective fee filing establishing the applicable fee. The Exchange 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.

¹⁰ See MIAX Emerald Regulatory Circular 2020-41 available at https://www.miaxoptions.com/sites/default/files/circular-files/MIAX_Emerald_RC_2020_41.pdf.

The Exchange initially filed its proposals to establish the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees on October 1, 2020.¹¹ The First Proposed Rule Changes were published for comment in the Federal Register between October 20-21, 2020.¹² On November 25, 2020, the Exchange withdrew the First Proposed Rule Changes¹³ and refiled its proposal to establish the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees.¹⁴ The Second Proposed Rule Change was published for comment in the Federal Register on December 14, 2020.¹⁵ On January 21, 2021, the Exchange withdrew the Second Proposed Rule Change and refiled its proposal.¹⁶

¹¹ See Securities Exchange Act Release Nos. 90183 (October 14, 2020), 85 FR 66607 (October 20, 2020) (SR-EMERALD-2020-09) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt Application Programming Interface (“API”) Testing and Certification Fees and Network Connectivity Testing and Certification Fees); 90196 (October 15, 2020), 85 FR 67064 (October 21, 2020) (SR-EMERALD-2020-11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt One-Time Membership Application Fees and Monthly Trading Permit Fees). The Exchange’s prior proposals to establish the one-time membership application fee and per-instance API Testing and Certification fees and Network Connectivity Testing and Certification fees are collectively referred to herein as the “First Proposed Rule Changes.” The Exchange notes that it will refile its proposal to establish monthly Trading Permit fees in a separate filing.

¹² See id.

¹³ See Comment Letter from Joseph W. Ferraro III, SVP, Deputy General Counsel, the Exchange, dated November 20, 2020, notifying the Commission that the Exchange will withdraw the First Proposed Rule Changes.

¹⁴ See Securities Exchange Act Release Nos. 90597 (December 8, 2020), 85 FR 80878 (December 14, 2020) (SR-EMERALD-2020-15) (the “Second Proposed Rule Change”).

¹⁵ See id.

¹⁶ See Comment Letter from Joseph W. Ferraro III, SVP, Deputy General Counsel, the Exchange, dated January 15, 2021, notifying the Commission that the Exchange will withdraw the Second Proposed Rule Change.

One-Time Membership Application Fee

The Exchange proposes to assess a one-time membership application fee based upon the applicant's status as either an EEM or as a Market Maker. The Exchange proposes that applicants for MIAX Emerald membership as an EEM will be assessed a one-time application fee of \$2,500. The Exchange proposes that applicants for MIAX Emerald membership as a Market Maker will be assessed a one-time application fee of \$3,000. The difference in the proposed membership application fee to be charged to EEMs and Market Makers is because of the additional review and resources involved in processing a Market Maker's application, as Market Makers have greater and more complex obligations with respect to doing business on the Exchange.¹⁷ MIAX Emerald's proposed one-time membership application fees are the same as the one-time application fees in place at the Exchange's affiliate, Miami International Securities Exchange, LLC ("MIAX") (\$2,500 for an EEM and \$3,000 for a MIAX Market Maker)¹⁸, and similar to or less than application fees for the Cboe Exchange, Inc. ("Cboe") (\$3,000 for an individual applicant and \$5,000 for an applicant organization)¹⁹ and Nasdaq ISE, LLC ("Nasdaq ISE") (\$7,500 per firm for a primary market maker, \$5,500 per firm for a competitive market maker, and \$3,500 per firm for an electronic access member).²⁰ Below is the table showing the proposed one-time membership application fees for EEMs and Market Makers:

Type of Membership	Application Fee
Electronic Exchange Member	\$2,500.00
Market Maker	\$3,000.00

¹⁷ See Chapter VI of the Exchange's rules, generally.

¹⁸ See MIAX Fee Schedule, Section 3)a).

¹⁹ See Cboe Fees Schedule, p. 9, Cboe Trading Permit Holder Application Fees.

²⁰ See Nasdaq ISE, Options Rules, Options 7, Pricing Schedule, Section 9. Legal and Regulatory A. Application.

API Testing and Certification Fees for Members

The Exchange also proposes to adopt an API Testing and Certification fee for Members. An API makes it possible for Member software to communicate with MIAX Emerald software applications, and is subject to Member testing with, and certification by, MIAX Emerald. API testing and certification includes, for EEMs, testing all available order types, new order entry, order management, order throughput and mass order cancellation. For Market Makers, API testing and certification also includes testing of all available quote types, quote throughput, quote management and cancellation, Aggregate Risk Manager settings and triggers, and confirmation of quotes within the trading engines.

The API Testing and Certification fees for Members are based upon the type of interface that the Member has been credentialed to use. The Exchange proposes to adopt an API testing and certification fee for EEMs (other than Clearing Firms): (i) initially per API for Financial Information Exchange (“FIX”)²¹ ports, FIX Drop Copy (“FXD”)²² ports and Clearing Trade Drop (“CTD”)²³ ports in the month the EEM has been credentialed to use one or more ports in the

²¹ “FIX Port” means an interface with MIAX Emerald systems that enables the Port user to submit simple and complex orders electronically to MIAX Emerald. See the Definitions section of the Fee Schedule.

²² The FIX Drop Copy (“FXD”) Port is a messaging interface that will provide a copy of real-time trade execution, trade correction and trade cancellation information to FXD Port users who subscribe to the service. FXD Port users are those users who are designated by an EEM to receive the information and the information is restricted for use by the EEM. FXD Port Fees will be assessed in any month the Member is credentialed to use the FXD Port in the production environment. See the Definitions section of the Fee Schedule.

²³ “CTD Port” or “Clearing Trade Drop Port” provides an Exchange Member with a real-time clearing trade updates. The updates include the Member’s clearing trade messages on a low latency, real-time basis. The trade messages are routed to a Member’s connection containing certain information. The information includes, among other things, the following: (i) trade date and time; (ii) symbol information; (iii) trade price/size information; (iv) Member type (for example, and without limitation, Market Maker, Electronic Exchange Member, Broker-Dealer); and (v) Exchange MPID for each side of

production environment for the tested API, and (ii) each time an EEM initiates a change to its system that requires testing and certification. The Exchange proposes to adopt an API testing and certification fee for EEM Clearing Firms (i) initially per API in the month the EEM Clearing Firm has been credentialed to use one or more CTD Ports in the production environment, and (ii) each time an EEM Clearing Firm initiates a change to its system that requires testing and certification.

The Exchange proposes to adopt an API testing and certification fee for Market Makers: (i) initially per API for CTD and MIAX Emerald Express Interface (“MEI”)²⁴ ports in the month the Market Maker has been credentialed to use one or more ports in the production environment for the tested API and the Market Maker has been assigned to quote in one or more classes, and (ii) each time a Market Maker initiates a change to its system that requires testing and certification. The Exchange also proposes that API Testing and Certification fees will not be assessed in situations where the Exchange initiates a mandatory change to the Exchange’s System²⁵ that requires testing and certification. The Exchange proposes to assess Member API Testing and Certification fees of \$1,000 for EEMs and \$2,500 for Market Makers. Below is the proposed table

the transaction, including Clearing Member MPID. See the Definitions section of the Fee Schedule.

²⁴ The MEI is a connection to the MIAX Emerald System that enables Market Makers to submit simple and complex electronic quotes to MIAX Emerald. The Exchange offers Full Service MEI Ports, which provide Market Makers with the ability to send Market Maker simple and complex quotes, eQuotes, and quote purge messages to the MIAX Emerald System. Full Service MEI Ports are also capable of receiving administrative information. Market Makers are limited to two Full Service MEI Ports per Matching Engine. The Exchange also offers Limited Service MEI Ports, which provide Market Makers with the ability to send simple and complex eQuotes and quote purge messages only, but not Market Maker Quotes, to the MIAX Emerald System. Limited Service MEI Ports are also capable of receiving administrative information. Market Makers initially receive two Limited Service MEI Ports per Matching Engine. See the Definitions section of the Fee Schedule.

²⁵ The term “System” means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

for API Testing and Certification fees for Members:

Type of Member	API Testing and Certification Fee
Electronic Exchange Member	\$1,000.00
Market Maker	\$2,500.00

API Testing and Certification Fee for Non-Members

The Exchange proposes to adopt an API Testing and Certification fee for Third Party Vendors,²⁶ Service Bureaus²⁷ and other non-Members (such as clearing firms): (i) initially per API for FIX, FXD, CTD and MEI ports in the month the Third Party Vendor, Service Bureau or non-Member has been credentialed to use one or more ports in the production environment for the tested API, and (ii) each time a Third Party Vendor, Service Bureau, or other non-Member initiates a change to its system that requires testing and certification. The Exchange also proposes that API Testing and Certification fees will not be assessed to non-Members in situations where the Exchange initiates a mandatory change to the Exchange's System that requires testing and certification.

The Exchange proposes to assess non-Member API Testing and Certification fees of \$1,200 for Third Party Vendors, Service Bureaus and other non-Members. Below is the proposed table for API Testing and Certification fees for non-Members:

Non-Member	API Testing and Certification Fee
Third Party Vendors and Service Bureaus and other non-Members	\$1,200.00

²⁶ Third Party Vendors are subscribers of MIAX Emerald's market and other data feeds, which they in turn use for redistribution purposes. See the Definitions section of the Fee Schedule.

²⁷ "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. See the Definitions section of the Fee Schedule.

The proposed higher fee charged to Third Party Vendors, Service Bureaus and non-Members reflects the greater amount of time spent by MIAX Emerald employees testing and certifying non-Members. It has been MIAX Emerald's experience that Member testing takes less time than non-Member testing because Members have more experience testing these systems with exchanges, resulting in generally fewer questions and issues arising during the testing and certification process. Also, because Third Party Vendors and Service Bureaus are redistributing data and reselling services to other Members and market participants, the number and types of scenarios that need to be tested are more numerous and complex than those tested and certified for a single Member.

The Exchange believes it is necessary to charge an API Testing and Certification fee to Members and non-Members because of the time and resources spent to ensure that Member and non-Member APIs function correctly to prevent any System malfunction. Further, the Exchange believes the price differential in API Testing and Certification fees for Members and non-Members is not unfairly discriminatory because, in the Exchange's experience, Member testing takes less time than non-Member testing as Members have more experience testing these systems with exchanges, resulting generally in fewer questions and issues arising during the testing and certification process.

Network Connectivity Testing and Certification Fee for Members

The Exchange established electronic communication connections with Members and now proposes to assess Members a Network Connectivity Testing and Certification fee for each 1 Gigabit ("Gb") connection and 10 Gb ultra-low-latency ("ULL") connection. The Exchange proposes to assess a Member Network Connectivity Testing and Certification fee: (i) initially per connection in the month the Individual Firm has been credentialed to use any API or market data feeds in the production environment utilizing the tested network connection, and (ii) each time

an individual firm initiates a change to its system that requires network connectivity testing and certification. Network Connectivity Testing and Certification fees will not be assessed in situations where the Exchange initiates a mandatory change to the Exchange’s system that requires testing and certification. Member Network Connectivity Testing and Certification fees will not be assessed for testing and certification of connectivity to the Exchange’s Disaster Recovery Facility.

The Exchange proposes to assess Members a Network Connectivity Testing and Certification Fee of \$1,000 per 1Gb connection and \$4,000 per 10Gb ULL connection. Below is the proposed table for Member Network Connectivity Testing and Certification fees:

Type of Member	1 Gigabit Fee Per Connection	10 Gigabit ULL Fee Per Connection
Individual Firm	\$1,000.00	\$4,000.00

The proposed fee amounts are identical to the fees currently assessed for the same services at the Exchange’s affiliate options exchanges, MIAX and MIAX PEARL, LLC (“MIAX PEARL”). The Exchange notes that the Emerald Express Network Interconnect (“EENI”)²⁸ is a network infrastructure which provides Members and non-Members network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facility of the

²⁸ “EENI” means the Emerald Express Network Interconnect, which is a network infrastructure which provides Members and non-Members network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of MIAX Emerald. When utilizing a Shared cross-connect, the EENI can also be configured to offer network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of MIAX and MIAX PEARL. When utilizing a Dedicated cross-connect, the EENI can only be configured to offer network connectivity to the trading platforms, market data systems, and test systems of MIAX Emerald. The EENI consists of the low latency and ultra-low latency connectivity options set forth in the Exchange’s Fee Schedule. See the Definitions section of the Fee Schedule.

Exchange. When utilizing a Shared²⁹ cross-connect, the EENI can also be configured to offer network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange's affiliate options exchanges, MIAX and MIAX PEARL. Members utilizing a single, Shared cross-connect to connect to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange, MIAX and MIAX PEARL will only be assessed one Network Connectivity Testing and Certification fee per connection tested, regardless of the trading platforms, market data systems, test systems, and disaster recovery facilities accessed via such connection.

Network Connectivity Testing and Certification Fee for Non-Members

MIAX Emerald established electronic communication connections with Service Bureaus, Extranet Providers and other non-Members, and now proposes to assess a Network Connectivity Testing and Certification fee for each 1Gb connection and 10Gb ULL connection. The Exchange proposes to assess a non-Member Network Connectivity Testing and Certification fee: (i) initially per connection in the month the Service Bureau, Extranet Provider or other non-Member has been credentialed to use any API or market data feeds in the production environment using the tested network connection, and (ii) each time the Service Bureau, Extranet Provider or other non-Member initiates a change to its system that requires network connectivity testing and certification. Network Connectivity Testing and Certification fees will not be assessed in situations where the Exchange initiates a mandatory change to the Exchange's system that requires testing and certification. Non-Member Network Connectivity Testing and

²⁹ "Shared" (cross-connect) means cross-connect that provides network connectivity to the trading platforms, market data systems, test systems, and/or disaster recovery facilities of MIAX Emerald, MIAX and MIAX PEARL via a single, shared connection. The following connections can be Shared across MIAX Emerald, MIAX and MIAX PEARL: 1 Gigabit, 1 Gigabit Disaster Recovery, and 10 Gigabit Disaster Recovery. See the Definitions section of the Fee Schedule.

Certification fees will not be assessed for testing and certification of connectivity to the Exchange's Disaster Recovery Facility.

The Exchange proposes to assess non-Members a Network Connectivity Testing and Certification Fee of \$1,200 per 1Gb connection and \$4,200 per 10Gb ULL connection. Below is the proposed table for non-Member Network Connectivity Testing and Certification fees:

Non-Member	1 Gigabit Fee Per Connection	10 Gigabit ULL Fee Per Connection
Service Bureau/Extranet Provider and other non-Members	\$1,200.00	\$4,200.00

The EENI is also available to non-Member subscribers. For non-Member subscribers, when utilizing a Shared cross-connect, the EENI can also be configured to offer network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange's affiliate options exchanges, MIAX and MIAX PEARL. Accordingly, non-Members utilizing Shared cross-connects to connect to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange and its affiliates, MIAX and MIAX PEARL, will only be assessed one Network Connectivity Testing and Certification fee per connection tested, regardless of the trading platforms, market data systems, test systems, and disaster recovery facilities accessed via such connection. The Member and non-Member Network Testing and Certification fees represent installation and support costs incurred by the Exchange as it works with each Member and non-Member to make sure there are appropriate electronic communication connections with MIAX Emerald. The Exchange's affiliate options exchanges, MIAX and MIAX PEARL, charge the same fees for the same services for their Members and non-Members.³⁰ The Exchange proposes to assess a higher

³⁰ See MIAX Fee Schedule, Sections 4)c) and 4)d); see also MIAX PEARL Fee Schedule, Sections 4)c) and 4)d).

Network Connectivity Testing and Certification fee to non-Members than to Members, similar to how MIAX and MIAX PEARL assesses such fees to their Members and non-Members. The proposed higher fee charged to non-Members reflects the greater amount of time spent by MIAX Emerald employees testing and certifying non-Members. It has been MIAX Emerald's experience that Member network connectivity testing takes less time than non-Member network connectivity testing because Members have more experience testing these systems with exchanges as generally fewer questions and issues arise during the testing and certification process.

2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act³¹ in general, and furthers the objectives of Section 6(b)(4) of the Act³² in particular, in that it is an equitable allocation of reasonable dues, fees and other charges among its members and issuers and other persons using its facilities. The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest and is not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

The Exchange launched trading on March 1, 2019. For the month of December 2020, the Exchange had only a 3.58% market share of the U.S. options industry.³³ The Exchange is not

³¹ 15 U.S.C. 78f(b).

³² 15 U.S.C. 78f(b)(4) and (5).

³³ See The Options Clearing Corporation (“OCC”) publishes options and futures volume in a variety of formats, including daily and monthly volume by exchange, available here: <https://www.theocc.com/market-data/volume/default.jsp>.

aware of any evidence that a market share of approximately 3% provides the Exchange with anti-competitive pricing power. If the Exchange were to attempt to establish unreasonable pricing, then no market participant would apply to become a Member of the Exchange, or test and certify with the Exchange's trading System.

The Exchange believes the proposed one-time membership application fee is reasonable, equitable and not unfairly discriminatory because it is a one-time fee that is reasonably related to (and designed to recover) the Exchange's cost associated with reviewing and approving membership applications, which consists primarily of the time and resources of Exchange personnel to process the membership application and conduct the new member on-boarding process. The Exchange's process for reviewing and approving potential new Members involves several steps and participation from personnel in multiple Exchange departments, as follows: (i) reviewing prospective Member information provided in various membership forms, including, where necessary, possibly consulting with FINRA, pursuant to the Exchange's Regulatory Services Agreement; (ii) the on-boarding process, where Exchange personnel contacts the firm for an introductory meeting with the Exchange's Business Team to discuss goals, answer questions and schedule the technical on-boarding meeting; (iii) the technical on-boarding meeting, where the Exchange's on-boarding team and Trading Operations Team guides the firm through the on-boarding process with Exchange personnel available to discuss network connectivity, APIs, Exchange functionality and operational issues; and (iv) follow-ups with the Trading Operations Team to coordinate testing, as necessary, until the firm is active in the Exchange's live trading environment.³⁴

³⁴ See the Exchange's Membership and Technical Onboarding process, available at <https://www.miaxoptions.com/membership/emerald>.

The Exchange tracks the number of hours spent by Exchange personnel providing the aforementioned services per membership application. Based on the average number of person hours spent by the Exchange on processing a typical membership application, and based on the Exchange's average cost per full-time employee ("FTE") of approximately \$250,000 (inclusive of all compensation and employee benefits) per year, the Exchange represents that its cost to provide this service is reasonably related to (and often exceeds) the amount of the membership application fee the Exchange proposes to charge for such service. In particular, it takes approximately 40 person hours to review, on-board and approve a membership application. Therefore, the cost to the Exchange for the review, on-boarding, and approval of each application is, on average, approximately \$4,000-\$5,000 (with EEM application costs closer to \$4,000, versus Market Maker application costs closer to \$5,000). Accordingly, the proposed one-time membership application fee would enable the Exchange to recover a material portion of such cost. The Exchange believes this is a conservative cost allocation because the Exchange is not allocating any additional costs beyond the employee compensation costs for employees directly involved in this process, such as costs associated with management review and sign off, compliance team reviews, technology costs of employees, office space costs of employees, costs associated with supporting departments' time for things such as internal meetings, project management coordination among the individuals who indirectly support the membership approval and on-boarding processes, and various other indirectly-related costs.

The Exchange also points out that it is not seeking to recoup any of its past costs associated with reviewing membership applications that took place during the Waiver Period. The Exchange currently has 35 Members,³⁵ all of whom did not pay the one-time membership

³⁵ See <https://www.miaxoptions.com/exchange-members/emerald>.

application fee, as it was waived for the Waiver Period when these firms all became Members of the Exchange. Further, the majority of firms that are Members of the Exchange's affiliate options exchanges, MIAX and MIAX PEARL, also became Members of those exchanges during similar Waiver Periods for the MIAX and MIAX PEARL one-time membership application fees. Accordingly, the Exchange (and MIAX and MIAX PEARL) have assumed approximately 100% of the costs associated with processing membership applications for the majority of Member firms approved by the Exchange, MIAX, and MIAX PEARL. Accordingly, the Exchange believes that it is reasonable, equitable, and not unfairly discriminatory to now adopt a one-time membership application fee that is reasonably related to (and designed to recover) the Exchange's cost associated with reviewing and approving membership applications.

The Exchange believes the proposed API Testing and Certification fees and Network Connectivity Testing and Certification fees are reasonable, equitable and not unfairly discriminatory. The Exchange tracks the number of hours spent by Exchange personnel providing API testing and certification services per billable instance. Based on the average number of person hours spent by the Exchange on API testing and certification services, and based on the Exchange's average cost per FTE of approximately \$250,000 (inclusive of all compensation and employee benefits) per year, the Exchange represents that its costs to provide these services are reasonably related to (and often exceed) the amount of the respective testing and certification fees the Exchange proposes to charge for such services. In particular, it takes approximately 20 person hours to complete the API testing and certification process. Therefore, the cost to the Exchange to provide API testing and certification services is, on average, approximately \$2,500 per instance (with EEM and non-Member testing and certification costs closer to \$2,000, versus Market Maker testing and certification costs closer to \$3,000). Accordingly, the proposed API Testing and Certification fees would enable the

Exchange to recover a material portion of such costs. The Exchange believes this is a conservative cost allocation because the Exchange is not allocating any additional costs beyond the employee compensation costs for employees directly involved in this process, such as management review and sign off, technology costs of employees, office space costs of employees, costs associated with supporting departments' time for things such as internal meetings, project management coordination among the individuals who indirectly support the testing and certification process, and various other indirectly-related costs.

The Exchange also points out that it is not seeking to recoup any of its past costs associated with conducting API testing and certification that took place during the Waiver Period. The Exchange currently has 35 Members,³⁶ all of whom did not pay the API testing and certification fee, as it was waived for the Waiver Period when these firms all became Members of the Exchange. Further, the majority of firms that are Members of the Exchange's affiliate options exchanges, MIAX and MIAX PEARL, also became Members of those exchanges during similar Waiver Periods for the MIAX and MIAX PEARL API Testing and Certification fees. Accordingly, the Exchange (and MIAX and MIAX PEARL) have assumed approximately 100% of the costs associated with conducting API testing and certification for the majority of Member firms approved by the Exchange, MIAX, and MIAX PEARL. Accordingly, the Exchange believes that it is reasonable, equitable, and not unfairly discriminatory to now adopt a per-instance fee that is reasonably related to (and designed to recover) the Exchange's cost associated with conducting API testing and certification.

The Exchange also tracks the number of hours spent by Exchange personnel providing network connectivity testing and certification services per billable instance. Based on the

³⁶ See id.

average number of person hours spent by the Exchange on network connectivity testing and certification services, and based on the Exchange's average cost per FTE of approximately \$250,000 (inclusive of all compensation and employee benefits) per year, the Exchange represents that its costs to provide these services are reasonably related to (and often exceed) the amount of the respective testing and certification fees the Exchange proposes to charge for such services. In particular, it takes approximately 20 person hours to complete the network testing and certification process for 1 Gigabit connections, and approximately 40 person hours to complete the network testing and certification process for 10 Gigabit ULL connections. Therefore, the cost to the Exchange to provide network connectivity testing and certification services is, on average, approximately \$2,500 per instance for 1 Gigabit connections, and approximately \$5,000 per instance for 10 Gigabit ULL connections. Accordingly, the proposed Network Connectivity Testing and Certification fees would enable the Exchange to recover a material portion of such costs. The Exchange believes this is a conservative cost allocation because the Exchange is not allocating any additional costs beyond the employee compensation costs for employees directly involved in this process, such as management review and sign off, technology costs of employees, office space costs of employees, costs associated with supporting departments' time for things such as internal meetings, project management coordination among the individuals who indirectly support the testing and certification process, and various other indirectly-related costs.

The Exchange believes the difference in the proposed membership application fee to be charged to EEMs and Market Makers is an equitable allocation of reasonable dues and fees pursuant to Section 6(b)(4) of the Act³⁷ because of the additional review and resources involved

³⁷ 15 U.S.C. 78f(b)(4).

in processing a Market Maker's application as opposed to an EEM's application, as Market Makers have greater and more complex obligations with respect to doing business on the Exchange.³⁸

The Exchange believes its proposal to adopt API Testing and Certification fees and Network Connectivity Testing and Certification fees for Members and non-Members is an equitable allocation of reasonable dues and fees pursuant to Section 6(b)(4) of the Act³⁹ because it is a per-instance fee that is reasonably related to (and designed to recover) the Exchange's cost associated with providing such API Testing and Certification services and Network Connectivity Testing and Certification services, which consists primarily of the time and resources spent to ensure that Member and non-Member APIs and connectivity function correctly to prevent any System malfunction.

Further, the Exchange believes the price differential in API Testing and Certification fees and Network Connectivity Testing and Certification fees for Members and non-Members is not unfairly discriminatory because, in the Exchange's experience, Member testing utilizes less Exchange resources and employee time than non-Member testing as Members have more experience testing these systems with exchanges, resulting generally in fewer questions and issues arising during the testing and certification process. Also, with respect to API testing and certification, because Third Party Vendors and Service Bureaus are redistributing data and reselling services to other Members and market participants the number and types of scenarios that need to be tested are more numerous and complex than those tested and certified for Members.

³⁸ See supra note 17.

³⁹ 15 U.S.C. 78f(b)(4).

The Exchange believes the difference in the proposed 1 Gigabit and 10 Gigabit ULL network connectivity testing and certification fees is an equitable allocation of reasonable dues and fees pursuant to Section 6(b)(4) of the Act⁴⁰ because of the additional review and resources involved in testing and certifying a 10 Gigabit ULL connection as opposed to a 1 Gigabit connection, as 10 Gigabit ULL connections offer vastly greater products and services which require significantly more time to test, including Market Maker quoting systems. The Exchange believes its proposed API Testing and Certification fees and Network Connectivity Testing and Certification fees are reasonable and well within the range of non-transaction fees assessed among other exchanges, including the Exchange's affiliate options exchanges, MIAX and MIAX PEARL.⁴¹

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

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

Intra-Market Competition

The Exchange believes that the proposed fees do not put any market participants at a relative disadvantage compared to other market participants. The proposed fees would apply to all new Exchange Members and those firms looking to establish APIs and network connectivity in the same manner. Market participants may not only choose whether to become Exchange Members at all, but may choose to become members at competing options exchanges instead.

The Exchange further believes the proposed fees do not place any market participant at a disadvantage compared to other market participants because the proposed API Testing and

⁴⁰ 15 U.S.C. 78f(b)(4).

⁴¹ See supra note 30.

Certification and Network Connectivity Testing and Certification fees are intended to cover the situations where a Member or non-Member firm makes changes to its own system for its own business purpose (i.e., instances where a firm is trying to improve its quoting engine), which requires the Exchange to test those re-architected systems. This testing requires the time of Exchange personnel in several departments (Trading Operations, Business, On-Boarding, Membership), and occurs primarily outside of normal business hours, often over the course of the weekend. The proposed fees are a way for the Exchange to recoup its costs associated with this testing. When the Exchange determines to make upgrades to its own system which requires mandatory testing and certification by Members, the Exchange does not charge any fees.

The Exchange believes that the proposed fees do not dampen innovation because the majority of Exchange Members are members of most, if not all, of the other 15 options exchanges. Those exchanges also require testing and certification any time the Member makes changes to its system at those exchanges, and also charge a fee to recoup the costs associated with testing and certifying members. The Exchange also notes that it has never received a complaint from a Member or non-Member any time a Member or non-Member has made a change to its own system that resulted in the Exchange assessing a testing and certification fee. Without some sort of testing and certification fee, the Exchange believes that Members and non-Members might be less efficient in testing their systems, potentially resulting in excessive time being consumed by the Exchange re-testing and re-certifying Members and non-Members, to the detriment of all market participants as Exchange resources are diverted away from other trading operations.

The Exchange also believes that the proposed fees neither favor nor penalize one or more categories of market participants in a manner that would impose an undue burden on competition. To the extent that various market participants are charged different fees for the one-

time membership application and per-instance API and network connectivity testing, those distinctions are not unfairly discriminatory and do not unfairly burden one set of market participants over another. The difference in the proposed membership application fee to be charged to EEMs and Market Makers is because of the additional review and resources involved in processing a Market Maker's application, as Market Makers have greater and more complex obligations with respect to doing business on the Exchange.⁴² The proposed higher fee charged to Third Party Vendors, Service Bureaus and non-Members reflects the greater amount of time spent by MIAX Emerald employees testing and certifying non-Members. It has been MIAX Emerald's experience that Member testing takes less time than non-Member testing because Members have more experience testing these systems with exchanges, resulting in generally fewer questions and issues arising during the testing and certification process. Also, because Third Party Vendors and Service Bureaus are redistributing data and reselling services to other Members and market participants, the number and types of scenarios that need to be tested are more numerous and complex than those tested and certified for a single Member. The higher fee charged to non-Members reflects the greater amount of time spent by MIAX Emerald employees testing and certifying non-Members. It has been MIAX Emerald's experience that Member network connectivity testing takes less time than non-Member network connectivity testing because Members have more experience testing these systems with exchanges as generally fewer questions and issues arise during the testing and certification process. The proposed higher fee charged for 10 Gigabit ULL connections versus 1 Gigabit ULL connections reflects the greater amount of time spent by MIAX Emerald employees testing and certifying 10 Gigabit ULL connections. MIAX Emerald's proposed one-time membership application fee and per-instance

⁴² See supra note 17.

API Testing and Certification fee levels and Network Connectivity Testing and Certification fee levels, as described herein, are comparable to fee levels charged by other options exchanges for the same or similar services, including those fees assessed by the Exchange's affiliates, MIAX and MIAX PEARL.⁴³

The Exchange believes that the proposed API Testing and Certification fees and Network Connectivity Testing and Certification fees do not place certain market participants at a relative disadvantage to other market participants because the fees do not apply unequally to different size market participants, but instead would allow the Exchange to charge for the time and resource necessary for API testing and certification and network connectivity testing and certification for Members and non-Members to ensure proper functioning of all available order types, new order entry, order management, order throughput and mass order cancellation (as well as, for Market Makers, all available quote types, quote throughput, quote management and cancellation, Aggregate Risk Manager settings and triggers, and confirmation of quotes within the trading engines). Accordingly, the proposed API Testing and Certification fees and network connectivity testing and certification fees do not favor certain categories of market participants in a manner that would impose a burden on competition.

Inter-Market Competition

The Exchange believes the proposed API Testing and Certification fees and Network Connectivity Testing and Certification fees do not place an undue burden on competition on other SROs that is not necessary or appropriate. The Exchange believes that the proposed fees do not impose a burden on competition or on other exchanges that is not necessary or appropriate

⁴³ See supra notes 18, 19, 20 and 30.

because of the availability of numerous substitute options exchanges. There are 15 other options exchanges where market participants can become members.

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,⁴⁴ and Rule 19b-4(f)(2)⁴⁵ thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

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

Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>);

or

- Send an e-mail [to rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-

EMERALD-2021-01 on the subject line.

⁴⁴ 15 U.S.C. 78s(b)(3)(A)(ii).

⁴⁵ 17 CFR 240.19b-4(f)(2).

Paper comments:

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

All submissions should refer to File Number SR-EMERALD-2021-01. 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 Web site (<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; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly.

All submissions should refer to File Number SR-EMERALD-2021-01 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.⁴⁶

Vanessa Countryman
Secretary

⁴⁶ 17 CFR 200.30-3(a)(12).

Exhibit 5

New text is underlined;
Deleted text is in [brackets]

MIAX Emerald Fee Schedule

3) Membership Fees**a) Application for MIAX Emerald Membership (One-Time Fee)**

Type of Membership	Application Fee
Electronic Exchange Member	[Fee waived for the Waiver Period] <u>\$2,500.00</u>
Market Maker	[Fee waived for the Waiver Period] <u>\$3,000.00</u>

MIAX Emerald will assess a one-time Membership Application Fee on the earlier of (i) the date the applicant is certified in the membership system, or (ii) once an application for MIAX Emerald membership is finally denied.

b) No Change.**4) Testing and Certification Fees****a) Member Application Programming Interface (“API”) Testing and Certification Fee**

Type of Member	API Testing and Certification Fee
Electronic Exchange Member	[Fee waived for the Waiver Period] <u>\$1,000.00</u>
Market Maker	[Fee waived for the Waiver Period] <u>\$2,500.00</u>

API Testing and Certification Fees for EEMs (other than Clearing Firms) will be assessed (i) initially per API for FIX, FXD and CTD in the month the EEM has been credentialed to use one or more ports in the production environment for the tested API, and (ii) each time an EEM initiates a change to its system that requires testing and certification.

API Testing and Certification Fees for EEM Clearing Firms will be assessed (i) initially per API in the month the EEM Clearing Firm has been credentialed to use one or more CTD Ports in the production environment, and (ii) each time an EEM Clearing Firm initiates a change to its system that requires testing and certification.

API Testing and Certification Fees for Market Makers will be assessed (i) initially per API for CTD and MEI in the month the Market Maker has been credentialed to use one or more ports in the production environment for the tested API and the Market Maker has been assigned to quote in one or more classes, and (ii) each time a Market Maker initiates a change to its system that requires testing and certification.

API Testing and Certification Fees will not be assessed in situations where the Exchange initiates a mandatory change to the Exchange's system that requires testing and certification.

b) Non-Member API Testing and Certification Fee

Non-Member	API Testing and Certification Fee
Third Party Vendors and Service Bureaus and other non-Members	[Fee waived for the Waiver Period] <u>\$1,200.00</u>

API Testing and Certification Fees for Third Party Vendors, Service Bureaus and other non-Members will be assessed (i) initially per API for FIX, FXD, CTD and MEI in the month the non-Member has been credentialed to use one or more ports in the production environment for the tested API, and (ii) each time a Third Party Vendor, Service Bureau, or other non-Member initiates a change to its system that requires testing and certification.

API Testing and Certification Fees will not be assessed in situations where the Exchange initiates a mandatory change to the Exchange's system that requires testing and certification.

c) Member Network Connectivity Testing and Certification Fee

Type of Member	1 Gigabit Fee Per Connection	10 Gigabit ULL Fee Per Connection
Individual Firm	[Fee waived for the Waiver Period] <u>\$1,000.00</u>	[Fee waived for the Waiver Period] <u>\$4,000.00</u>

Member Network Connectivity Testing and Certification Fees will be assessed (i) initially per connection in the month the Individual Firm has been credentialed to use any API or market data feeds in the production environment utilizing the tested network connection, and (ii) each time an Individual Firm initiates a change to its system that requires network connectivity testing and certification.

Network Connectivity Testing and Certification Fees will not be assessed in situations where the Exchange initiates a mandatory change to the Exchange's system that requires testing and certification. Member Network Connectivity Testing and Certification Fees will not be assessed for testing and certification of connectivity to the Exchange's Disaster Recovery Facility.

Members utilizing a single, Shared cross-connect to connect to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange, MIAX PEARL, and MIAX will only be assessed one Network Connectivity Testing and Certification Fee per connection tested, regardless of the trading platforms, market data systems, test systems, and disaster recovery facilities accessed via such connection.

d) Non-Member Network Connectivity Testing and Certification Fee

Non-Member	1 Gigabit Fee Per Connection	10 Gigabit ULL Fee Per Connection
Service Bureau/Extranet Provider and other non-Members	[Fee waived for the Waiver Period] <u>\$1,200.00</u>	[Fee waived for the Waiver Period] <u>\$4,200.00</u>

Non-Member Network Connectivity Testing and Certification fees will be assessed (i) initially per connection in the month the Service Bureau, Extranet Provider or other non-Member has been credentialed to use any API or market data feeds in the production environment using the tested network connection, and (ii) each time a Service Bureau, Extranet Provider or other non-Member initiates a change to its system that requires network connectivity testing and certification.

Network Connectivity Testing and Certification Fees will not be assessed in situations where the Exchange initiates a mandatory change to the Exchange’s system that requires testing and certification. Non-Member Network Connectivity Testing and Certification Fees will not be assessed for testing and certification of connectivity with the Exchange’s Disaster Recovery Facility.

Non-Members utilizing a single, Shared cross-connect to connect to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange, MIAX PEARL, and MIAX will only be assessed one Network Connectivity Testing and Certification Fee per connection tested, regardless of the trading platforms, market data systems, test systems, and disaster recovery facilities accessed via such connection.
