

Required fields are shown with yellow backgrounds and asterisks.

Page 1 of \* 27

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549  
Form 19b-4

File No. \* SR 2023 - \* 17

Amendment No. (req. for Amendments \*)

Filing by Nasdaq GEMX, LLC

Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

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

<input type="checkbox"/> 19b-4(f)(1)	<input type="checkbox"/> 19b-4(f)(4)
<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 Section 806(e)(1) * <input type="checkbox"/>	Section 806(e)(2) * <input type="checkbox"/>
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Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934 Section 3C(b)(2) * <input type="checkbox"/>
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Exhibit 2 Sent As Paper Document <input type="checkbox"/>
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Exhibit 3 Sent As Paper Document <input type="checkbox"/>
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**Description**

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

A proposal to amend the Exchanges GPS antenna fees at General 8, Section 1.

**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 *	<input type="text" value="Katie"/>	Last Name *	<input type="text" value="Hopkins"/>
Title *	<input type="text" value="Associate General Counsel"/>		
E-mail *	<input type="text" value="Katie.hopkins@nasdaq.com"/>		
Telephone *	<input type="text" value="(301) 232-4067"/>	Fax	<input type="text"/>

**Signature**

Pursuant to the requirements of the Securities Exchange of 1934, Nasdaq GEMX, LLC has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

Date	<input type="text" value="11/29/2023"/>	(Title *)
By	<input type="text" value="John Zecca"/> (Name *)	<input type="text" value="EVP and Chief Legal Officer"/>

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

	Date: 2023.11.29 14:34:09 -05'00'
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Required fields are shown with yellow backgrounds and astericks.

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

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

**Form 19b-4 Information \***

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SR-GEMX-2023-17 19b-4.doc

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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SR-GEMX-2023-17 Exhibit 1.doc

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 Advanced Notice by Clearing Agencies \***

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

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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 Sent As Paper Document

**Exhibit 3 - Form, Report, or Questionnaire**

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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 Sent As Paper Document

**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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SR-GEMX-2023-17 Exhibit 5.doc

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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) Nasdaq GEMX, LLC (“GEMX” or “Exchange”), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> is filing with the Securities and Exchange Commission (“SEC” or “Commission”) a proposal to amend the Exchange’s GPS antenna fees at General 8, Section 1, as described further below.

A notice of the proposed rule change for publication in the Federal Register is attached as Exhibit 1. The text of the proposed rule change is attached as Exhibit 5.

(b) Not applicable.

(c) Not applicable.

2. Procedures of the Self-Regulatory Organization

The proposed rule change was approved by senior management of the Exchange pursuant to authority delegated by the Board of Directors (the “Board”). Exchange staff will advise the Board of any action taken pursuant to delegated authority. No other action is necessary for the filing of the rule change.

Questions and comments on the proposed rule change may be directed to:

Katie Hopkins  
Associate General Counsel  
Nasdaq, Inc.  
301-232-4067

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

<sup>2</sup> 17 CFR 240.19b-4.

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

a. Purpose<sup>3</sup>

The Exchange offers a GPS antenna, which allows co-location customers<sup>4</sup> to synchronize their time recording systems to the U.S. Government’s Global Positioning System (“GPS”) network time (the “Service”). The Exchange proposes to modify its monthly fees for the Service at General 8, Section 1(d).

GPS network time is the atomic time scale implemented by the atomic clocks in the GPS ground control stations and GPS satellites. Each GPS satellite contains multiple atomic clocks that contribute precise time data to the GPS signals. GPS receivers decode these signals, synchronizing the receivers to the atomic clocks. A GPS antenna serves as a time signal receiver and feeds a primary clock device the GPS network time using precise time data. Firms can use the precise time data provided by the GPS antenna to time-stamp transactional information.

Time synchronization services are well established in the U.S. and utilized in many areas of the U.S. economy and infrastructure. The Service is not novel to the securities markets, or to the Exchange.

The Exchange offers connectivity to a GPS antenna via two options, over shared infrastructure or a dedicated antenna. If a firm wishes to connect via a dedicated connection, it must supply the antenna hardware.

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<sup>3</sup> The Exchange initially filed the proposed pricing changes on September 29, 2023 with an effective date of October 1, 2023 (SR-GEMX-2023-12). On November 15, 2023, the Exchange withdrew SR-GEMX-2023-12 and replaced with SR-GEMX-2023-15. The instant filing replaces SR-GEMX-2023-15, which was withdrawn on November 29, 2023.

<sup>4</sup> The Exchange offers customers the opportunity to co-locate their servers and equipment within the Exchange’s primary data center, located in Carteret, New Jersey.

The Exchange currently charges a monthly fee of \$200 for the Service, which applies to both the shared infrastructure option and the dedicated antenna option. The Exchange proposes to increase the monthly fee to \$600 for the Service, which would apply to both the shared infrastructure option and the dedicated antenna option. As such, the Exchange proposes to amend its fee schedule at General 8, Section 1(d) to reflect the increased monthly fee for the GPS antenna. The Exchange has not raised such price since the monthly fee of \$200 was adopted.<sup>5</sup> In addition, the Exchange charges a higher monthly fee of \$350 for cross-connections to approved telecommunication carriers in the data center and for inter-cabinet connections to other co-location customers in the data center, despite the fact that the Service not only provides connectivity (like the cross-connections), but also provides data (i.e., the network time) to co-location customers.

In addition, the Exchange's fee schedule at General 8, Section 1(d) currently states that the installation fee for the GPS antenna is installation specific. The Exchange proposes to add specific installation amounts for the Service within the fee schedule, providing greater transparency to market participants. Specifically, the Exchange proposes to charge an installation fee of \$900 for connectivity to a GPS antenna over shared infrastructure and \$1,500 for connectivity to a GPS antenna over a dedicated antenna.<sup>6</sup> The difference in installation costs reflects the differing levels of complexity. For the dedicated antenna option, installation involves installing an antenna on the roof whereas the shared option involves extending a cable from a device located inside the data center.

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<sup>5</sup> See Securities Exchange Act Release No. 81902 (October 19, 2017), 82 FR 49453 (October 25, 2017) (SR-GEMX-2017-48).

<sup>6</sup> NYSE provides a similar service for a \$3,000 initial charge plus a \$400 monthly charge. See [https://www.nyse.com/publicdocs/Wireless\\_Connectivity\\_Fees\\_and\\_Charges.pdf](https://www.nyse.com/publicdocs/Wireless_Connectivity_Fees_and_Charges.pdf).

The Service is an optional product available to any firm that chooses to subscribe. Firms may cancel their subscription at any time. The Service simply provides time synchronization that may be utilized by firms to adjust their own time systems and time-stamp transactional information. The GPS antenna is offered on a completely voluntary basis. No customer is required to purchase the GPS antenna. Potential subscribers may subscribe to the Service only if they voluntarily choose to do so. It is a business decision of each firm whether to subscribe to the Service or not. Furthermore, firms have an array of options for time synchronization. Firms may purchase the Service (or enhanced time synchronization services) from other vendors.<sup>7</sup> Customers do not receive an advantage by purchasing the Service from the Exchange rather than another provider. The Exchange is merely providing access to GPS signals, which can also be accessed via other providers.

In addition to cost, a firm's decision regarding which, if any, time synchronization option to purchase may depend, among other factors, on whether it wants to build or buy a time feed as well as the design of a firm's systems. A firm may prefer to build out its own time feed using GPS network time (as provided by the Exchange or a third-party vendor) or purchase a time synchronization service that handles the time feed for them. Examples of enhanced time synchronization include Precision Time Protocol ("PTP"), Pulse Per Second Time Synchronization Protocol ("PPS"), and Network Time Protocol ("NTP"), each of which are feeds that a client can consume rather than creating a feed itself. Such a choice may depend on a firm's desire for control of the feed, time sensitivity, and trade strategy, including whether a firm uses such time information to

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<sup>7</sup> For example, Pico, Guava Tech, and SFTI provide time synchronization services.

trigger trading decisions, as well as other considerations such as cost and convenience. In addition, with respect to the design of a firm's systems, a firm may choose to have its time synchronization equipment centralized or in multiple locations. Third-party vendors may be situated in Carteret or other New York metro financial data centers. Clients and vendors alike can produce a time feed in Carteret or any of the other locations.<sup>8</sup>

Approximately 59% of the Exchange's co-location customers subscribe to the Service, most of which opt for the shared option. The fact that approximately 41% of the Exchange's co-location customers do not subscribe to the Service demonstrate that there are alternative options available.

If the Exchange is incorrect in its determination that the proposed fees reflect the value of the GPS antenna, customers will not purchase the product or will seek other options at their disposal, such as purchasing time synchronization services from third-party vendors.

b. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,<sup>9</sup> in general, and furthers the objectives of Sections 6(b)(4) and 6(b)(5) of the Act,<sup>10</sup> in particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among members and issuers and other persons using any facility, and is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The proposed change to the pricing schedule is reasonable in several respects. As a threshold matter, the Exchange is subject to significant competitive forces in the market

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<sup>8</sup> As needed, firms and vendors use latency between the data centers to adjust their time synchronization.

<sup>9</sup> 15 U.S.C. 78f(b).

<sup>10</sup> 15 U.S.C. 78f(b)(4) and (5).

for order flow, which constrains its pricing determinations. The fact that the market for order flow is competitive has long been recognized by the courts. In NetCoalition v. Securities and Exchange Commission, the D.C. Circuit stated, “[n]o one disputes that competition for order flow is ‘fierce.’ ... As the SEC explained, ‘[i]n the U.S. national market system, buyers and sellers of securities, and the broker-dealers that act as their order-routing agents, have a wide range of choices of where to route orders for execution’; [and] ‘no exchange can afford to take its market share percentages for granted’ because ‘no exchange possesses a monopoly, regulatory or otherwise, in the execution of order flow from broker dealers’ ....”<sup>11</sup>

The Commission and the courts have repeatedly expressed their preference for competition over regulatory intervention to determine prices, products, and services in the securities markets. In Regulation NMS, while adopting a series of steps to improve the current market model, the Commission highlighted the importance of market forces in determining prices and SRO revenues, and also recognized that current regulation of the market system “has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.”<sup>12</sup>

Congress directed the Commission to “rely on ‘competition, whenever possible, in meeting its regulatory responsibilities for overseeing the SROs and the national market system.’”<sup>13</sup> As a result, the Commission has historically relied on competitive forces to

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<sup>11</sup> See NetCoalition, 615 F.3d at 539 (D.C. Cir. 2010) (quoting Securities Exchange Act Release No. 59039 (December 2, 2008), 73 FR 74770, 74782-83 (December 9, 2008) (SR-NYSEArca-2006-21)).

<sup>12</sup> See Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37499 (June 29, 2005) (“Regulation NMS Adopting Release”).

<sup>13</sup> See NetCoalition, 615 F.3d at 534-35; see also H.R. Rep. No. 94-229 at 92 (1975) (“[I]t is the intent of the conferees that the national market system evolve through the interplay of competitive forces as unnecessary regulatory restrictions are removed.”).



determine whether a fee proposal is equitable, fair, reasonable, and not unreasonably or unfairly discriminatory. “If competitive forces are operative, the self-interest of the exchanges themselves will work powerfully to constrain unreasonable or unfair behavior.”<sup>14</sup> Accordingly, “the existence of significant competition provides a substantial basis for finding that the terms of an exchange’s fee proposal are equitable, fair, reasonable, and not unreasonably or unfairly discriminatory.”<sup>15</sup> In its 2019 guidance on fee proposals, Commission staff indicated that they would look at factors beyond the competitive environment, such as cost, only if a “proposal lacks persuasive evidence that the proposed fee is constrained by significant competitive forces.”<sup>16</sup>

The proposed fees are reasonable and unlikely to burden the market because the purchase of the Service is optional for all categories of co-location customers. No firms are required to purchase the Service. Though many firms use GPS network time to synchronize their internal primary clock devices, firms can purchase time sync services from third-party vendors. Firms are also free to utilize other services that may assist them in enhanced time synchronization of their systems by consuming time feeds, such as PTP, PPS, and NTP. As noted above, approximately 59% of the Exchange’s co-location customers subscribe to the Service, most of which opt for the shared option. The fact that approximately 41% of the Exchange’s co-location customers do not subscribe to the Service demonstrate that there are alternative options available. Firms may choose to

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<sup>14</sup> See Securities Exchange Act Release No. 59039 (December 2, 2008), 73 FR 74770 (December 9, 2008) (SR-NYSEArca-2006-21).

<sup>15</sup> Id.

<sup>16</sup> See U.S. Securities and Exchange Commission, “Staff Guidance on SRO Rule filings Relating to Fees” (May 21, 2019), available at <https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees>.

purchase multiple time synchronization services for resiliency or otherwise.<sup>17</sup> For example, a decision to purchase multiple synchronization services could be based on client strategy, as some strategies require more precise time than others. As described above, in addition to cost, a firm's decision regarding which, if any, time synchronization option to purchase may depend, among other factors, on whether a firm wishes to build or buy a time feed, the design of a firm's systems, including whether a firm chooses to have its time synchronization equipment centralized or in multiple locations, a firm's time sensitivity, a firm's trading strategy, including whether it uses such time information to trigger trading decisions, and a firm's desire for control of the time feed.

The Exchange offers the Service as a convenience to firms to provide them with the ability to synchronize their own primary clock devices to the GPS network time and time-stamp transactional information.<sup>18</sup> Customers do not receive an advantage by purchasing the Service from the Exchange rather than another provider. The Exchange is merely providing access to GPS signals, which can also be accessed via other providers. Firms that choose to subscribe to the Service may discontinue the use of the Service at any time if they determine that the time synchronization services provided via the GPS antenna are no longer useful. In sum, co-location customers can discontinue the use of the Service at any time, decide not to subscribe, or use a third-party vendor for time synchronization services, for any reason, including the fees.

The optional Service is available to all co-location customers that choose to subscribe. The proposed fees would apply to all co-location customers on a non-

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<sup>17</sup> Of the Exchange's co-location customers that subscribe to the Service, approximately 9% of such co-location customers purchase both the dedicated and the shared options of the Service.

<sup>18</sup> In offering the Service as a convenience to firms, the Exchange incurs certain costs, including costs related to the data center facility, hardware and equipment, and personnel.

discriminatory basis, and therefore are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Exchange also believes that the proposed changes to include specific installation fees promote just and equitable principles of trade and remove impediments to and perfect the mechanism of a free and open market and a national market system because the proposed rule changes will provide greater clarity to Members and the public regarding the Exchange's fees. It is in the public interest for rules to be accurate and transparent so as to eliminate the potential for confusion.

If the Exchange is incorrect in its determination that the proposed fees reflect the value of the GPS antenna, customers will not purchase the product or will seek other options at their disposal, such as purchasing time synchronization services from third-party vendors.

#### 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.

In terms of inter-market competition (the competition among self-regulatory organizations), the Exchange notes that it operates in a highly competitive market in which market participants can readily favor competing venues if they deem fee levels at a particular venue to be excessive. In such an environment, the Exchange must continually adjust its fees to remain competitive with other exchanges and with alternative trading systems that have been exempted from compliance with the statutory standards applicable to exchanges. Because competitors are free to modify their own fees in response, the Exchange believes that the degree to which fee changes in this market may

impose any burden on competition is extremely limited. Approval of the proposal does not impose any burden on the ability of other exchanges to compete. As noted above, time synchronization services are offered by other vendors and any exchange has the ability to offer such services if it so chooses.

Nothing in the proposal burdens intra-market competition (the competition among consumers of exchange data) because the GPS antenna is available to any co-location customer under the same fees as any other co-location customer, and any co-location customer that wishes to purchase a GPS antenna can do so on a non-discriminatory basis.

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,<sup>19</sup> the Exchange has designated this proposal as establishing or changing a due, fee, or other charge imposed by the self-regulatory organization 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.

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: (i) necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) otherwise in furtherance of the purposes of the Act. If

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<sup>19</sup> 15 U.S.C. 78s(b)(3)(A)(ii).

the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

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

Not applicable.

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. Notice of Proposed Rule Change for publication in the Federal Register.
5. Text of the proposed rule change.

**EXHIBIT 1**

SECURITIES AND EXCHANGE COMMISSION  
(Release No. \_\_\_\_\_ ; File No. SR-GEMX-2023-17)

December \_\_, 2023

Self-Regulatory Organizations; Nasdaq GEMX, LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Amend Its GPS Antenna Fees at General 8, Section 1

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)<sup>1</sup>, and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on November 29, 2023, Nasdaq GEMX, LLC (“GEMX” or “Exchange”) filed with the Securities and Exchange Commission (“SEC” or “Commission”) the 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 proposes to amend the Exchange’s GPS antenna fees at General 8, Section 1, as described further below. The text of the proposed rule change is available on the Exchange’s Website at <https://listingcenter.nasdaq.com/rulebook/gemx/rules>, at the principal office of the Exchange, and at the Commission’s Public Reference Room.

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

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it

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

<sup>2</sup> 17 CFR 240.19b-4.

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<sup>3</sup>

The Exchange offers a GPS antenna, which allows co-location customers<sup>4</sup> to synchronize their time recording systems to the U.S. Government's Global Positioning System ("GPS") network time (the "Service"). The Exchange proposes to modify its monthly fees for the Service at General 8, Section 1(d).

GPS network time is the atomic time scale implemented by the atomic clocks in the GPS ground control stations and GPS satellites. Each GPS satellite contains multiple atomic clocks that contribute precise time data to the GPS signals. GPS receivers decode these signals, synchronizing the receivers to the atomic clocks. A GPS antenna serves as a time signal receiver and feeds a primary clock device the GPS network time using precise time data. Firms can use the precise time data provided by the GPS antenna to time-stamp transactional information.

Time synchronization services are well established in the U.S. and utilized in many areas of the U.S. economy and infrastructure. The Service is not novel to the securities markets, or to the Exchange.

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<sup>3</sup> The Exchange initially filed the proposed pricing changes on September 29, 2023 with an effective date of October 1, 2023 (SR-GEMX-2023-12). On November 15, 2023, the Exchange withdrew SR-GEMX-2023-12 and replaced with SR-GEMX-2023-15. The instant filing replaces SR-GEMX-2023-15, which was withdrawn on November 29, 2023.

<sup>4</sup> The Exchange offers customers the opportunity to co-locate their servers and equipment within the Exchange's primary data center, located in Carteret, New Jersey.

The Exchange offers connectivity to a GPS antenna via two options, over shared infrastructure or a dedicated antenna. If a firm wishes to connect via a dedicated connection, it must supply the antenna hardware.

The Exchange currently charges a monthly fee of \$200 for the Service, which applies to both the shared infrastructure option and the dedicated antenna option. The Exchange proposes to increase the monthly fee to \$600 for the Service, which would apply to both the shared infrastructure option and the dedicated antenna option. As such, the Exchange proposes to amend its fee schedule at General 8, Section 1(d) to reflect the increased monthly fee for the GPS antenna. The Exchange has not raised such price since the monthly fee of \$200 was adopted.<sup>5</sup> In addition, the Exchange charges a higher monthly fee of \$350 for cross-connections to approved telecommunication carriers in the data center and for inter-cabinet connections to other co-location customers in the data center, despite the fact that the Service not only provides connectivity (like the cross-connections), but also provides data (i.e., the network time) to co-location customers.

In addition, the Exchange's fee schedule at General 8, Section 1(d) currently states that the installation fee for the GPS antenna is installation specific. The Exchange proposes to add specific installation amounts for the Service within the fee schedule, providing greater transparency to market participants. Specifically, the Exchange proposes to charge an installation fee of \$900 for connectivity to a GPS antenna over shared infrastructure and \$1,500 for connectivity to a GPS antenna over a dedicated antenna.<sup>6</sup> The difference in installation costs reflects the differing levels of complexity.

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<sup>5</sup> See Securities Exchange Act Release No. 81902 (October 19, 2017), 82 FR 49453 (October 25, 2017) (SR-GEMX-2017-48).

<sup>6</sup> NYSE provides a similar service for a \$3,000 initial charge plus a \$400 monthly charge. See [https://www.nyse.com/publicdocs/Wireless\\_Connectivity\\_Fees\\_and\\_Charges.pdf](https://www.nyse.com/publicdocs/Wireless_Connectivity_Fees_and_Charges.pdf).



For the dedicated antenna option, installation involves installing an antenna on the roof whereas the shared option involves extending a cable from a device located inside the data center.

The Service is an optional product available to any firm that chooses to subscribe. Firms may cancel their subscription at any time. The Service simply provides time synchronization that may be utilized by firms to adjust their own time systems and time-stamp transactional information. The GPS antenna is offered on a completely voluntary basis. No customer is required to purchase the GPS antenna. Potential subscribers may subscribe to the Service only if they voluntarily choose to do so. It is a business decision of each firm whether to subscribe to the Service or not. Furthermore, firms have an array of options for time synchronization. Firms may purchase the Service (or enhanced time synchronization services) from other vendors.<sup>7</sup> Customers do not receive an advantage by purchasing the Service from the Exchange rather than another provider. The Exchange is merely providing access to GPS signals, which can also be accessed via other providers.

In addition to cost, a firm's decision regarding which, if any, time synchronization option to purchase may depend, among other factors, on whether it wants to build or buy a time feed as well as the design of a firm's systems. A firm may prefer to build out its own time feed using GPS network time (as provided by the Exchange or a third-party vendor) or purchase a time synchronization service that handles the time feed for them. Examples of enhanced time synchronization include Precision Time Protocol ("PTP"), Pulse Per Second Time Synchronization Protocol ("PPS"), and Network Time Protocol

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<sup>7</sup> For example, Pico, Guava Tech, and SFTI provide time synchronization services.

(“NTP”), each of which are feeds that a client can consume rather than creating a feed itself. Such a choice may depend on a firm’s desire for control of the feed, time sensitivity, and trade strategy, including whether a firm uses such time information to trigger trading decisions, as well as other considerations such as cost and convenience. In addition, with respect to the design of a firm’s systems, a firm may choose to have its time synchronization equipment centralized or in multiple locations. Third-party vendors may be situated in Carteret or other New York metro financial data centers. Clients and vendors alike can produce a time feed in Carteret or any of the other locations.<sup>8</sup>

Approximately 59% of the Exchange’s co-location customers subscribe to the Service, most of which opt for the shared option. The fact that approximately 41% of the Exchange’s co-location customers do not subscribe to the Service demonstrate that there are alternative options available.

If the Exchange is incorrect in its determination that the proposed fees reflect the value of the GPS antenna, customers will not purchase the product or will seek other options at their disposal, such as purchasing time synchronization services from third-party vendors.

## 2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,<sup>9</sup> in general, and furthers the objectives of Sections 6(b)(4) and 6(b)(5) of the Act,<sup>10</sup> in particular, in that it provides for the equitable allocation of reasonable dues, fees and

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<sup>8</sup> As needed, firms and vendors use latency between the data centers to adjust their time synchronization.

<sup>9</sup> 15 U.S.C. 78f(b).

<sup>10</sup> 15 U.S.C. 78f(b)(4) and (5).

other charges among members and issuers and other persons using any facility, and is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The proposed change to the pricing schedule is reasonable in several respects. As a threshold matter, the Exchange is subject to significant competitive forces in the market for order flow, which constrains its pricing determinations. The fact that the market for order flow is competitive has long been recognized by the courts. In NetCoalition v. Securities and Exchange Commission, the D.C. Circuit stated, “[n]o one disputes that competition for order flow is ‘fierce.’ ... As the SEC explained, ‘[i]n the U.S. national market system, buyers and sellers of securities, and the broker-dealers that act as their order-routing agents, have a wide range of choices of where to route orders for execution’; [and] ‘no exchange can afford to take its market share percentages for granted’ because ‘no exchange possesses a monopoly, regulatory or otherwise, in the execution of order flow from broker dealers’ ....”<sup>11</sup>

The Commission and the courts have repeatedly expressed their preference for competition over regulatory intervention to determine prices, products, and services in the securities markets. In Regulation NMS, while adopting a series of steps to improve the current market model, the Commission highlighted the importance of market forces in determining prices and SRO revenues, and also recognized that current regulation of the market system “has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.”<sup>12</sup>

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<sup>11</sup> See NetCoalition, 615 F.3d at 539 (D.C. Cir. 2010) (quoting Securities Exchange Act Release No. 59039 (December 2, 2008), 73 FR 74770, 74782-83 (December 9, 2008) (SR-NYSEArca-2006-21)).

<sup>12</sup> See Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37499 (June 29, 2005) (“Regulation NMS Adopting Release”).

Congress directed the Commission to “rely on ‘competition, whenever possible, in meeting its regulatory responsibilities for overseeing the SROs and the national market system.’”<sup>13</sup> As a result, the Commission has historically relied on competitive forces to determine whether a fee proposal is equitable, fair, reasonable, and not unreasonably or unfairly discriminatory. “If competitive forces are operative, the self-interest of the exchanges themselves will work powerfully to constrain unreasonable or unfair behavior.”<sup>14</sup> Accordingly, “the existence of significant competition provides a substantial basis for finding that the terms of an exchange’s fee proposal are equitable, fair, reasonable, and not unreasonably or unfairly discriminatory.”<sup>15</sup> In its 2019 guidance on fee proposals, Commission staff indicated that they would look at factors beyond the competitive environment, such as cost, only if a “proposal lacks persuasive evidence that the proposed fee is constrained by significant competitive forces.”<sup>16</sup>

The proposed fees are reasonable and unlikely to burden the market because the purchase of the Service is optional for all categories of co-location customers. No firms are required to purchase the Service. Though many firms use GPS network time to synchronize their internal primary clock devices, firms can purchase time sync services from third-party vendors. Firms are also free to utilize other services that may assist them in enhanced time synchronization of their systems by consuming time feeds, such as PTP, PPS, and NTP. As noted above, approximately 59% of the Exchange’s co-location

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<sup>13</sup> See NetCoalition, 615 F.3d at 534-35; see also H.R. Rep. No. 94-229 at 92 (1975) (“[I]t is the intent of the conferees that the national market system evolve through the interplay of competitive forces as unnecessary regulatory restrictions are removed.”).

<sup>14</sup> See Securities Exchange Act Release No. 59039 (December 2, 2008), 73 FR 74770 (December 9, 2008) (SR-NYSEArca-2006-21).

<sup>15</sup> Id.

<sup>16</sup> See U.S. Securities and Exchange Commission, “Staff Guidance on SRO Rule filings Relating to Fees” (May 21, 2019), available at <https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees>.

customers subscribe to the Service, most of which opt for the shared option. The fact that approximately 41% of the Exchange's co-location customers do not subscribe to the Service demonstrate that there are alternative options available. Firms may choose to purchase multiple time synchronization services for resiliency or otherwise.<sup>17</sup> For example, a decision to purchase multiple synchronization services could be based on client strategy, as some strategies require more precise time than others. As described above, in addition to cost, a firm's decision regarding which, if any, time synchronization option to purchase may depend, among other factors, on whether a firm wishes to build or buy a time feed, the design of a firm's systems, including whether a firm chooses to have its time synchronization equipment centralized or in multiple locations, a firm's time sensitivity, a firm's trading strategy, including whether it uses such time information to trigger trading decisions, and a firm's desire for control of the time feed.

The Exchange offers the Service as a convenience to firms to provide them with the ability to synchronize their own primary clock devices to the GPS network time and time-stamp transactional information.<sup>18</sup> Customers do not receive an advantage by purchasing the Service from the Exchange rather than another provider. The Exchange is merely providing access to GPS signals, which can also be accessed via other providers. Firms that choose to subscribe to the Service may discontinue the use of the Service at any time if they determine that the time synchronization services provided via the GPS antenna are no longer useful. In sum, co-location customers can discontinue the use of the Service at any time, decide not to subscribe, or use a third-party vendor for time

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<sup>17</sup> Of the Exchange's co-location customers that subscribe to the Service, approximately 9% of such co-location customers purchase both the dedicated and the shared options of the Service.

<sup>18</sup> In offering the Service as a convenience to firms, the Exchange incurs certain costs, including costs related to the data center facility, hardware and equipment, and personnel.

synchronization services, for any reason, including the fees.

The optional Service is available to all co-location customers that choose to subscribe. The proposed fees would apply to all co-location customers on a non-discriminatory basis, and therefore are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Exchange also believes that the proposed changes to include specific installation fees promote just and equitable principles of trade and remove impediments to and perfect the mechanism of a free and open market and a national market system because the proposed rule changes will provide greater clarity to Members and the public regarding the Exchange's fees. It is in the public interest for rules to be accurate and transparent so as to eliminate the potential for confusion.

If the Exchange is incorrect in its determination that the proposed fees reflect the value of the GPS antenna, customers will not purchase the product or will seek other options at their disposal, such as purchasing time synchronization services from third-party vendors.

**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.

In terms of inter-market competition (the competition among self-regulatory organizations), the Exchange notes that it operates in a highly competitive market in which market participants can readily favor competing venues if they deem fee levels at a particular venue to be excessive. In such an environment, the Exchange must continually adjust its fees to remain competitive with other exchanges and with alternative trading

systems that have been exempted from compliance with the statutory standards applicable to exchanges. Because competitors are free to modify their own fees in response, the Exchange believes that the degree to which fee changes in this market may impose any burden on competition is extremely limited. Approval of the proposal does not impose any burden on the ability of other exchanges to compete. As noted above, time synchronization services are offered by other vendors and any exchange has the ability to offer such services if it so chooses.

Nothing in the proposal burdens intra-market competition (the competition among consumers of exchange data) because the GPS antenna is available to any co-location customer under the same fees as any other co-location customer, and any co-location customer that wishes to purchase a GPS antenna can do so on a non-discriminatory basis.

C. 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.

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

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(ii) of the Act.<sup>19</sup> 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: (i) necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) 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.

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<sup>19</sup> 15 U.S.C. 78s(b)(3)(A)(ii).

#### 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 (<https://www.sec.gov/rules/sro.shtml>); or
- Send an email to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include file number SR-GEMX-2023-17 on the subject line.

##### Paper Comments:

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

All submissions should refer to file number SR-GEMX-2023-17. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (<https://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 a.m. and 3



p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to file number SR-GEMX-2023-17 and should be submitted on or before [INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>20</sup>

**Sherry R. Haywood,**

*Assistant Secretary.*

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<sup>20</sup> 17 CFR 200.30-3(a)(12).

**EXHIBIT 5**

Deleted text is [bracketed]. New text is underlined.

**NASDAQ GEMX, LLC RULES**

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**General Rules**

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**General 8: Connectivity**

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**Section 1. Co-Location Services**

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**(d) Additional Charges/Services**

**Additional Items**

<b>Description</b>	<b>Installation Fee</b>	<b>Ongoing Monthly Fee</b>
Cooling (Door) Fans	\$1,500	\$0
Perforated Floor Tiles	\$250	\$0
Cabinet Extension	\$500	\$0
Super High Density Cabinet Kit	\$4,500	\$0
Additional Cabinet Shelves	\$200	\$0
Single Master Key Locks	\$175	\$0
Cable Downspouts	\$750	\$0
Cabinet Caging	Installation Specific	\$3,000
Custom Installation	Installation Specific	\$0
Cabinet Equipment Storage	\$0	\$500
Copper Patch Cords	\$4.50 +\$0.50 per foot	\$0
Fiber Patch Cords - Multi-mode	\$20 +\$1.50 per meter	\$0

Fiber Patch Cords - Single-mode	\$24 +\$0.75 per meter	\$0
Twinax Patch Cords	\$34 +\$10 per meter	\$0
Power Cords - 5-15P to C13 - 2 to 4 feet	\$5	\$0
Power Cords - C14 to C19 - 2 to 4 feet	\$10	\$0
Equipment Storage	\$0	\$100
Internet Bandwidth - 1Mb	\$0	\$300
Internet Bandwidth - 2Mb	\$0	\$500
Internet Bandwidth - 3Mb	\$0	\$700
Internet Bandwidth - 4Mb	\$0	\$900
Internet Bandwidth - 5Mb	\$0	\$1,100
GPS Antenna - <u>Shared</u>	[Installation Specific] <u>\$900</u>	[\$200] <u>600</u>
<u>GPS Antenna - Dedicated</u>	<u>\$1,500</u>	<u>\$600</u>
Cabinet Proximity Option Fee	\$0	\$1,000 per medium or low density cabinet, or \$1,500 per medium/high or high density cabinet

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